Varazdin Development and Entrepreneurship Agency
in cooperation with
Azerbaijan State University of Economics (UNEC)
University North
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Economic and Social Development

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"Socio Economic Problems of Sustainable Development"

Book of Proceedings

Editors:
Muslim Ibrahimov, Ana Aleksic, Darko Dukic

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ACADEMIC ENTREPRENEURSHIP AS AN IMPORTANT FACTOR OF SUSTAINABLE ECONOMIC DEVELOPMENT

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ABSTRACT

The article reveals the essence and importance of academic entrepreneurship as an important factor in sustainable economic development.The emphasis was placed on the growing role of academic entrepreneurship in all academic personnel and in all economic subjects of innovation activity. The article studies the research and innovation activities of universities in developed countries, as well as innovative enterprises as subjects of academic entrepreneurship, as well as their problems in the process of formation and functioning.Modern universities also take on the mission of presenting the results of their research and business activities to the business environment, in addition to education and basic research, and also turn scientific research laboratories and community centers into economic actors that play an important role in the innovation process. The actions of key participants, such as pioneers, innovators and investors involved in the implementation of innovations in the field of commercialization of university innovations, as well as the close relationship of the concept of commercialization with market relations were reviewed.In order to achieve high technological results in the innovation sector, the issues of attracting potential investors and public funding of universities were considered.To assist small innovative enterprises, the urgency of the creation of business incubators and investment institutions by the state is justified.The issues of improving the financial policy mechanism for the development of academic entrepreneurship, especially improving the lending and taxation system, stimulating innovation, expanding the intermediate function between state universities, research organizations and industrial companies were carefully studied. Substantial proposals and recommendations for improving the methods and forms of commercialization of results and innovation of university research are provided.

Keywords: *academic entrepreneurship commercialization of innovations, small innovative enterprise*

1. INTRODUCTION

Ideas about higher education, society, entrepreneurship, and the state are undergoing major changes in the globalizing world economy, and universities are seen as the center for the systematic integration of innovation activities in the country.Universities engaged in the development and commercialization of new knowledge and technologies receive additional sources of income, and the innovations they introduce satisfy the needs of consumers. As a means of commercializing the results of university research, academic entrepreneurship transforms new knowledge into innovations, products, services and processes.Academic entrepreneurship plays an important role not only among academical staff involved in research and the commercialization of their results, but also in all economic subjects of innovation activity.Strengthening the innovative potential of universities in the post-industrial age is necessary for the future integration of science and the real economy, the development of the state and society.It is expected that universities will contribute to the sustainable development and competitiveness of the national economy through innovation.

2. INNOVATION AS A PRIORITY DIRECTION OF UNIVERSITIES

Innovative development of academic entrepreneurship is one of the most vital social and economic problems of sustainable development. An important pattern of sustainable development is inequality due to the consistent replacement of technological systems. The basis of the theory of changing technological systems and their replacement by new generation technologies is the concept of long-term cycles N. D. Kondratieva and I. Shumbetrin's hypothesis, which reflects the interaction between entrepreneurship and long-term movement in the development of technological innovations. The innovative technology of the sixth technological system - NBIC technology, based on the technological convergence of nano-bio-information and cognitive technologies, will become a sustainable source of economic growth and competitiveness of developed countries due to the strong synergy effect. Innovations in the developed countries of the world, which are leaders in the field of research and development of NBIC technology, provide 80-90 percent of GDP growth [1, p.215]. Recently, there have been positive trends in science in higher education. This is due to the increase in state support for universities and the need to commercialize the results of their research. If universities are passive and do not interact with state-owned enterprises, they may lose reputation and access to financial resources in the eyes of the business community and cannot actively participate in international educational and scientific cooperation, which could lead to divergence of potential college candidates and future problems. Universities in developed countries of the world are turning into leading research centers whose goal is not only to train highly qualified specialists, but also to stimulate innovation and the application of innovation. Leading universities unite with business structures for creation of a chain of innovations. For example, in the United States the University of Maryland has an industry engagement program which accelerates process of commercialization of innovative technologies by joint financing of research and development by the university and the industry.

2.1. The role of academic entrepreneurship in the innovative development of the economy

With the globalization of the world economy in the higher education system, major changes are occurring, as in other areas, it is assumed that universities are directly involved in the development of entrepreneurial activity based on innovation. As a result of the commercialization of large scientific and technical potential collected at universities, it is possible to obtain additional sources of income. This can be achieved through the development of academic entrepreneurship, which is the means of commercialization of knowledge. For the development of academic entrepreneurship, it is important to create small innovative enterprises in higher education institutions that turn their knowledge into innovations, services, products and processes. The phenomenon of academic entrepreneurship plays an important role not only among the teaching staff engaged in research and commercialization, but also in all economic actors of innovation. For the first time, American companies were engaged in academic entrepreneurship in the 70s of the 20th century, and its formal formation has coincided with the adoption of the Bayh-Dole Act in 1980. This law allowed universities to patent their inventions, and also granted ownership of their research and technology. In the 80s of the 20th century, universities in European countries began to commercialize the results of their research work. Commercialization is the process of transforming the fundamental knowledge gained from business activities in universities into innovative products. The basis of these processes are fundamentally new functions assigned to universities. Universities also take on the mission of presenting the results of their research and business activities to a business environment, in addition to education and basic research. Research laboratories and social centers are becoming economic actors that play an important role in the innovation process. Thus, universities become researchers and consultants and turn into a full-fledged market participant, which led to the creation of small innovative enterprises.

In industrialized countries, universities, in addition to performing their traditional functions, successfully implement the commercialization of the results of their research work. At the end of the 20th century, academic entrepreneurship became more prominent in European countries, since the commercialization of the results of scientific and technical activities allowed universities to generate additional income. A large number of studies on the development of academic entrepreneurship have been implemented and published in European countries. In economically developed European countries, talented students work in small innovative enterprises, in which they transform their knowledge gained by them in the learning process, into various innovative technologies and projects. Leading research universities in the world have specialized offices that help academic stuff and students wishing to engage in academic entrepreneurship. These offices offer technological equipments and jobs, and also form a team for the implementation of innovative projects. They then look for an investor and assist in launching a small innovative enterprise and patenting acquired inventions, as well as provide necessary advice and answers to questions during the project implementation stages.

2.1.1. Principles for the commercialization of university innovations

Attracting potential investors or public funding of universities are crucial to achieving high technological innovation results, as universities often do not have special funds for research and development of new technologies. To support small innovative enterprises, the state should create business incubators and investment institutions, as well as make changes and amendments to the legislation. All this is crucial for protecting and increasing the interest of students and teachers in the development of academic entrepreneurship, since small innovative enterprises have significant advantages in the development of an innovative economy of the country. The development of small innovative enterprises allows universities to benefit from the material resources and capabilities of industrial companies. In addition, joint research with industrial companies improves the status of universities. The process of commercialization of innovations in higher education requires the joint participation of several actors. The main actors in this process are pioneers, innovators and investors. In the process of commercializing innovation, universities are pioneers and sources of scientific work, industrial companies play the role of innovators, and state and commercial banks, credit institutions and venture capital funds perform the functions of an investor.Joint participation in the commercialization of innovations leads to certain contradictions in their interests. That is why the commercialization of innovations in higher education requires a balance of interests of all participants. Considering that the concept of commercialization is closely related to market relations, we can say that the basis of the concept of market and commercialization is the same. Market relations are based on free enterprise, competition and the allocation of resources, pricing, determining the balance of supply and demand and the protection of property rights by the state. Therefore, without market relations, the concept of “commercialization” loses its essence. Research centers and universities play an important role in the innovative development of the economy.

3. IMPROVING THE MECHANISM OF MANAGEMENT OF ACADEMIC ENTREPRENEURSHIP IN UNIVERSITIES

Universities support the development of the country's economy in the following directions [2, p.139].

- universities are considered the basis of basic scientific research, creating the conditions for technological, social and economic development of the country;
- researches are conducted in universities of the applied direction and intermediate structures are created for their introduction into the industry (technoparks, business incubators);

- university research is an important part of the process of training scientific personnel and increasing the scientific and pedagogical potential of the country;
- universities often become a "pole of attraction" of high-tech industries to their countries.

In world practice, there are various mechanisms for the application of innovations.Analyzing the features of the innovation policy of foreign countries, the Russian economist Natalya Shelyubskaya concluded that their innovation policy was aimed at promoting clear scientific and technical cooperation [3, p. 24]. The state often plays the role of an intermediary between research organizations, universities and companies. Various structures are being created, such as a university and industrial cooperative center, an innovation center for the introduction of new technologies for small and medium-sized businesses, and a center for the commercialization of inventions. To implement the results of scientific research is usually used mechanism of technology commercialization using organizational structures of business entities. Scientific studies show that countries with a high level of innovation interaction between universities and industrial enterprises occupy leading positions in the Global Competitiveness Index of the Davos World Economic Forum. The analysis of the works devoted to the problems of innovative development of the economy leads to the conclusion that there are general trends in innovation policy in different countries of the world. For example, in all countries of the world, direct and indirect methods of stimulating innovation are used, which, in turn, corresponds to the structure as a whole. There is a cluster approach to the formation of general trends in the innovation policy of foreign countries. American philosopher Michael porter (1947), the founder of cluster theory, first described the cluster in his work "Competition". A cluster is a geographical concentration of interconnected enterprises, specialized suppliers, associated institutions in a particular field, as well as organizations that are competitive in certain areas and at the same time work together on their activities [4, p.485]. The creation of clusters accelerates the process of economic growth in some areas, which leads to the growth of innovative activity and competitiveness of the country.The experience of foreign countries has shown that the functioning of several groups of sectors in the interaction within clusters leads to an increase in employment, a large amount of investment and accelerated use of innovative technologies in the national economy. Since 2005, industrial areas, industrial parks and agroparks have been created in many cities and districts of the Republic of Azerbaijan; serious work is being done towards clustering and diversifying the national economy. The development of academic entrepreneurship requires the formation and development of a national innovation system. Some steps were taken to form a national innovation system in the Republic of Azerbaijan, the Scientific Innovations Center of the National Academy of Sciences of Azerbaijan and the Foundation for the Development of Science were created, and legislative and regulatory acts regulating innovations were adopted. Financing of innovation activities should be carried out at the expense of the state budget and the local budget, special funds of enterprises, extra-budgetary funds and venture capital. To implement an active innovation policy, it is necessary to take measures to improve fiscal policy, in particular, to improve the system of crediting and taxation and to stimulate innovation activity. Experience shows that modern high-tech production can be based only on horizontal, diagonal and vertical integration processes. Profound economic progress can be achieved not by scattered enterprises, but by their mergers and groupings through clusters and networks. The inclusion of universities in the cluster provides a competitive advantage for the country, that is, investors can simultaneously invest in the real economy, as well as education and research. A distinctive feature of such clusters is their innovative orientation. An innovation cluster is a set of services that provides interaction between independent enterprises, such as universities, knowledge-based enterprises, science and industry, and also supports organizations and consumers who participate in joint innovation activities.

Various innovative structures have been created at universities in the USA, Canada, Great Britain, Japan, and other countries that contribute to the innovative development of the national economy. At the present stage of the Azerbaijani economy, higher education institutions are considered as a center for the systematic integration of the country's innovative activity. Innovation activities of higher education institutions, understood as activities aimed at the development and commercialization of new knowledge and technologies, are considered as their main directions of development. Innovations carried out by institutions of higher education lead to the satisfaction of the demand of local and foreign consumers. In addition, strengthening the innovative capacity of higher education institutions is important for the future integration of science and the real economy, as well as the sustainable development of the state and society in the post-industrial era. In accordance with the State Strategy for the Development of Education in the Republic of Azerbaijan, the restructuring of the higher education sector is aimed at developing research and development in universities, deepening cooperation between universities, leading companies in the real economy and academic institutions, and expanding international integration of universities in Azerbaijan in the field of research and development, strengthening academic mobility and the development of a network of educational and research programs are the main priorities of higher education. Thus, financial support from the government to leading universities, research groups and other scientists participating in research at the international level will increase, and the practice of providing benefits to small innovative enterprises that will allow commercialization of intellectual property in universities will continue. Currently, universities are developing innovation performance management systems, developing criteria for evaluating innovations and proposing various methods and tools for its development. As a rule, the organization of innovation in higher education involves the integration of research centers of universities and industrial companies, so that academic stuff who participate in research can commercialize the results of their work as soon as possible. Today, the most urgent task is to create innovation centers, incubators, special educational, scientific and innovative complexes at universities. Thus, the innovative activity of higher educational institutions is one of the main factors for the successful modernization of the economy of Azerbaijan. Modern universities are considered as subjects of economic activity. Currently, various structural units of higher education institutions have the opportunity to realize and commercialize their innovative potential. In order to improve the process of managing innovations in the conditions of free market relations, it is necessary to improve the management methods of the university, taking into account its characteristics. At new stages of education, universities successfully competing in the global market for educational services are transformed into an open innovation system.

4. CONCLUSIONS

There is a trend in the world towards a knowledge-based society and economy.Small innovative enterprises, which are one of the key organizers of this process, play an important role in the development of academic entrepreneurship in higher education institutions.However, the Azerbaijani authorities are not taking effective measures to stimulate academic entrepreneurship.

- Innovative activity of higher educational institutions is one of the main factors for successful modernization of the country's economy. Modern university is considered as a subject of economic activity. Structural subdivisions of the university have the opportunity to realize their innovative potential, they receive additional funds from the commercialization of their research results.
- The system of financing university science should be flexible and have many sources; it is necessary to eliminate regulatory barriers that prevent the integration of education with the

real sector of science and economics. In terms of market relations, it is necessary to improve the methods of university management taking into account the peculiarities of innovation. It is important to actively promote the partnership of business with science and education.

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SUSTAINABLE ECONOMIC DEVELOPMENT AND AZERBAIJAN

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ABSTRACT

Sustainable economic development brings about economic growth as a result of increased incomes in the country. Entrepreneurship plays an important role in the context of sustainable economic development. This role, which incorporates production, labor, capital and technology, combines assessment and risk and sets out a strategic framework for economic regulation and development. Entrepreneurship spirit is the key element of sustainable economic development in the country. The growth and prosperity of those elements are also the driving force of the economy. The impact of economic development on the entrepreneur takes a special place in promoting sustainable economic development by promoting entrepreneurs' innovation and innovation through competitiveness, promoting employment, opening up business opportunities, expanding production and commercial activities, inventions, scientific research and discoveries. Therefore, promoting a competitive environment in the business environment and boosting state-of-the-art support for increasing the volume of production are considered to be topical issues in ensuring sustainable economic development. The article analyzes the complex mechanism of sustainable economic development based on theoretical and practical approaches. The modern state of the economy of the Republic of Azerbaijan as the object of research was taken as a basis. The purpose of the research is to examine the methods of balanced economic development, based on macro and microeconomic analysis. The novelty of scientific research is to identify the features of economic relationships, and to identify areas for effective economic development strategies based on program- targeted management.

Keywords: *sustainable development, development concept, program-targeted management, state development strategy*

1. INTRODUCTION

"Sustainable Development" – is a developmental approach that does not endanger the demands of future generations, while meeting the demands of the present time. [1] Here are two key concepts:

- understanding the different needs that will be the primary priority, especially the needs of the poorest populations;
- understanding the limitations imposed on the ability of the society to meet current and future environmental requirements conditioned by technological and organizational status.

There are also short conclusions reflecting some important economic aspects of sustainable development. Among such definitions are the following:

- development that does not overwhelm additional costs for future generations;
- adversely affecting the generation, minimizing external influences;
- progressive or expanded permanent reproduction of production potential in perspective.

It is possible to distinguish between the generations of modern generations and the ecological-economic aspect, which emphasizes the social aspect, the problem of poverty, when it comes to the prerogatives of the economic relations of the generations. The goal of a sustainable economic development concept is to combine three main objectives in a single, economic, social and environmental environment.

The global nature of the concept of sustainable development, the collapse of the most complex environmental, economic and social problems in the so-called concept, is even revealed in the above brief description [2, p. 231]. Program-targeted management in sustainable economic development begins with the precise identification and implementation of end-to-end goals. These goals make the usual desirable situation. The management system should move from the given situation to the same situation after a period of time after a number of problems that separate the situation from the desired situation. [3, p. 33] By reviewing the "programmatic management" approach, it would be desirable to make a conclusion about the quality, in other words, the direction in which the desired changes were made. The purpose of sustainable economic development is to provide not only the present generation of the country, but also the welfare of its future generations. [4, p. 21]

2. OVERVIEW OF ECONOMIC SUSTAINABILITY CONCEPTS IN AZERBAIJAN

The priority of the socio-economic policy of Azerbaijan is the human factor, its concerns welfare, health and safety. This once again shows that the Azerbaijani economy is socially oriented. Regarding the application of term “sustainable development” it should be noted that, the term was mentioned for the first time when a speech was delivered by the UN Commission for Environment and Development, headed by Mrs. Gro Harlem Brundtland, the former Prime Minister of Norway in 1987, entitled “Our Common Future.” During the speech, issues such as further aggravation of “nature-society” relations, the world’s population outgrowth and poverty, the problem of drinking water and food, the demographic explosion, deteriorating people’s material well-being and living standards, increase of frequency of natural disasters, exhausting natural resources and energy resources, extension of social inequality among countries, and etc. were substantiated. The purpose of this report was to develop a sustainable development concept, which is based on the social, economic and ecologically normal payment of the living needs of today’s generations, without endangering their lives, without endangering the lives of future generations. The state acts as the main provider of economic security. In accordance with the current legislation, the state ensures the security of every citizen in the territory of the Republic of Azerbaijan, social and legal protection of public associations and organizations. Sustainable economic development paradigm implies that the sustainable and decent well-being of the human community is determined by the economy, the social sphere, and the environment. In societies, where only macroeconomic indicators are improving, it is still insufficient to speak about sustainable economic development. Classification of Sustainable Economic Development Concept:

- global (mega) level – the world’s sustainable economic development;
- regional level – sustainable economic development of the -world region;
- macro-level – the country’s sustainable economic development;
- local level – Sustainable economic development of the localized country-specific region;
- meso-level – sustainable development of the country’s economy;
- micro-level – a sustainable development of a separate enterprise;
- universal – suitable for all situations.

Our country is closely involved with the UN’s global development initiatives. The Millennium Declaration was adopted at the UN Millennium Summit in New York, USA, in 2000. This Declaration identifies Millennium Development Goals (MDGs) for countries around the world by 2015. The declaration consists of 8 sections and 32 items. Millennium Development Goals are as follows:

- eradication extreme poverty and hunger;
- achievement universal primary education;
- ensuring gender equality and empowering women;

- reducing child mortality;
- improving maternal health;
- combat against HIV/AIDS, malaria and other diseases,
- ensuring environmental sustainability;
- expansion of global partnership for sustainable development.

3. IMPROVEMENTS ON ACHIEVEMENT OF THE GOALS OF MILLENNIUM ECONOMIC DEVELOPMENT IN AZERBAIJAN

"The State Program on Poverty Reduction and Economic Development in the Republic of Azerbaijan for 2003-2005", as well as "the State Program on Poverty Reduction and Sustainable Development in the Republic of Azerbaijan for 2008-2015", aimed at implementing complex measures to combat poverty in our country, which joined the Millennium Declaration, have been prepared, approved and successfully implemented. Azerbaijan has achieved significant milestones in Millennium Development Goals over the past few years, particularly in promoting people's health, improving the environment, poverty eradication, raising the level of education of the population, promoting and ensuring gender equality. Increasing the purposefulness and effectiveness of social policy, including the improvement of the social protection system and the targeted state social assistance program, has enabled to eliminate excessive poverty in the country and reduce the absolute poverty level of 49% in 2001 to 4.9% in 2015 reported. [2] The negative processes taking place in the world economy and the decline in exports in consequence of decrease of oil prices have affected both the economy of Azerbaijan and the level of poverty. As a result, there was a slight increase in poverty in 2016, but the timely preventive measures have justified themselves. At present, the poverty rate is 5.9%. Let's take a view to the achievements of our country on Millennium Development Goals:

Table following on the next page

Table 1: Millennium Development Goals

Goals	General results acquired
Goal 1: Overcoming poverty and hunger	Hunger and poverty are already not actual for Azerbaijan. Therefore, the policy is aimed to reduction of absolute poverty level. According to SSC HBSS (State Statistics Committee Household Budget Selection Study), the absolute poverty level within the country decreased from 49.0 % to 4.9 %, and the extreme poverty level dropped to an unacceptable level (<0.1) throughout 2001-2015.
	The share of the poorest quintile in consumption increased from 12.2% in 2003 to 15.4%.
	The share of children under age 5 decreased from 6.8% in 2001-2015 to 0.6%
Goal 2: Providing access to general primary education	The Republic of Azerbaijan has already achieved this goal. Although the country has high indicators in this area, the relevant figures have improved at certain degree in recent years.
	Literacy levels between the ages of 15-24 have been risen to 100% and have been the same for men and women throughout 2000-2015.
	The net enrollment ratio in primary education has risen to 99.8%. Among men, the figure rose to 99.9 per cent and 99.7 per cent to women throughout 2000-2015.
	The percentage of primary school graduates over the years has increased from 92.8 to 100%. Among men, this indicator increased to 100 per cent and 99.9 per cent to women throughout 2000-2015.
Goal 3: Gender equality and empowerment of women	Certain progress has been achieved in the sphere of gender equality for the targets set
	The unemployment rate among women has dropped by more than 2 times and dropped from 12.7% to 5.9% throughout 2000-2015.
	The unemployment rate among women has dropped by more than 2 times and dropped from 12.7% to 5.9% throughout 2000-2015.
	The number of seats held by women in the Parliament has risen from 10.7% to 16.8% throughout 2000-2015.
Goal 4: Reducing child mortality rate	Mortality rate among children under 5 (for every 1000 viable births) has dropped from 30.5% to 13.3% throughout 2000-2015.
	Infant mortality rate (per 1000 viable births) has dropped from 16.4% to 11.0% throughout 2000-2015.
	Level of vaccination of children against measles aged 1 year was 98.1% throughout 2000-2015.
Goal 5: Improving maternal health	The maternal mortality rate (every 100,000 live births) has fallen from 37.6% to 14.4% throughout 2000-2015.
	The proportion of births that have been received by a qualified healthcare professional has increased from 92.1% to 99.8% throughout 2000-2015.
Goal 6: Combat against HIV/ AIDS, malaria and other diseases	As of the end of 2015, 5629 people were registered in the Republic of Azerbaijan, and 5439 of the citizens of the country were registered with HIV / AIDS infection, the share of the population living with HIV is 0.06%.
	Cases with malaria contamination (per 100,000 population) dropped from 19.4 to 0 throughout 2000-2015.
	Cases with tuberculosis contamination (per 100,000 population) decreased from 178.6 to 101.1, the recording factor decreased from 64.3 to 41.9, and mortality from 14.9 to 5.1throughout 2000-2015.
Goal 7: Providing environmental sustainability	As a result of continuous forestation and forest regeneration measures accomplished throughout 2000-2015, the forest area has been at 12.0 per cent of the country's total area. At the same time, the proportion of the area of specially protected natural areas, which aims to preserve biodiversity, has increased more than 2 times from 5% to 10.3% (from 4298.6 km^2 to 8925.5 km^2).
	The percentage of people with access to fresh water sources reached 89.2% in 2015.
	The share of the population with access to improved sewerage services increased by 94.3% in 2015.
	The relocation of people living in the country (including normal housing and sanitation services), particularly for residential premises for normal living conditions, for the purpose of renovating such places and for living Still, work is still being done in the direction of laying and cleaning the dumps. As a result, the proportion of refugees and internally displaced persons living in "useful" areas for living has increased to 60.0% in 2015.
Goal 8: Developing a global partnership for the sake of progress	The number of internet users per 100 people has risen from 8 to 77 people throughout 2000-2015.
	The amount of individual computers per 100 people has risen from 15.0 to 69.9 pieces throughout 2000-2015.
	The ratio of wired telephone lines per 100 people has risen from 10 to 16 throughout 2000-2015.
	The amount of mobile phone numbers per 100 people has increased from 5.3 to 112 pieces throughout 2000-2015.
	The unemployment rate among the youth (15-24 years) has been reduced from 22.0 to 13.4% throughout 2000-2015. Among the women this figure dropped from 25.4 % to 15.8 %.

Source: Voluntary Statement on the initial steps taken by the Republic of Azerbaijan to implement the Sustainable Development Agenda until 2030. [4; p. 13-15]

3.1. Achieving sustainable development goals

Azerbaijan continues to actively participate in the global challenges of the UN.

Thus, Azerbaijan has been ratified by UN member states for the period 2016-2030 at the United Nations Summit on Sustainable Development in New York, September 25-27, 2015 and officially entered into force in January 2016 Sustainable Development Goals. The Azerbaijani state has also joined the "Transformation of our world: The Agenda of Sustainable Development until 2030", which combines the purpose of the 17th and the 169 goals set out for these purposes. The set goals and targets are based on the Millennium Development Goals, which cover the economic, social and environmental aspects of sustainable development, and identify the next development goals. Let's look through the Sustainable Development Goals:

1. elimination of poverty – end all forms of poverty everywhere;
2. eradication of hunger – hunger, achieve food security and nutritional quality improvements and promote sustainable agriculture;
3. good health and well-being – providing healthy living and promote the well-being of everyone at all ages;
4. quality education – promoting inclusive and equal quality education and promoting lifelong learning opportunities for everyone;
5. gender equality – achieving gender equality and empowering all women and girls;
6. clean water and sanitation – ensuing access and sustainable management of water and sanitation for everyone;
7. good and clean energy – providing everyone with affordable, reliable, durable and modern energy;
8. decent labor and economic growth – promotion of sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for everyone;
9. industry, innovation and infrastructure – building a strong infrastructure, promoting inclusive and sustainable industrialization, and encouraging innovation;
10. inequality reduction – reducing inequality in and out of dominance;
11. sustainable cities and communities – making cities and settlements inclusive, safe, stable, and sustainable;
12. responsible consumption and production – providing sustainable consumer and production models;
13. fight against climate change – taking immediate action to combat climate change and its effects;
14. marine ecosystem protection – marine ecosystem protection;
15. soil ecosystem conservation – protection, restoration and promotion of sustainable use of land ecosystems, sustainable forest management, combating desertification and prevention and restoration of soil degradation, stopping biodiversity loss;
16. peace, justice and effective institutions – promoting peaceful and inclusive societies for sustainable development, ensure justice is accessible for all and create effective, responsible and inclusive institutions in all stages;
17. strengthening partnerships for goals and targets global partnerships for sustainable development.

The main objective of the President of the Republic of Azerbaijan is "Azerbaijan 2020: A Look into the Future" Development Concept, aimed at achieving high social welfare through sustainable socio-economic development on the basis of progressive world experience taking into account the country's socioeconomic resources in the long run, targeted state programs, specific action plans, complex and sustainable economic reforms have created a legal and economic basis for innovative, knowledge-based economy formation, diversification of exports, maximizing dependence on imports, enhancing business environment, attracting investment and other important work [5]. "Strategic Road Map on National Economy and Major Sectors of the Economy" has been approved by the Presidential Decree of December 6, 2016

to ensure the sustainability of economic policies and reforms implemented in the country. Strategic road maps that provide a qualitatively new model of economic development include a long-term vision for the period from 2025 to 2025 and a target view of the period from 2025 to 2025. This important document identifies key areas of development from agriculture to industry, as well as human capital development and further improvement of the business environment. [5, p. 7] As a consequence of systematic and preventive measures, the Azerbaijani economy has sufficiently prepared for the onset of the ongoing global economic crisis, which began in 2008 and later, in spite of the high investment risks in the crisis and the impact of the devaluation wave in the neighboring countries, Azerbaijan has pursued a rational macroeconomic policy, created foreign exchange reserves have played a significant role in managing financial risks in a predetermined mode. [6, p. 128]

3.2. Statistical results on achievement of socio-economic development

Statistical indicators once again confirm the development and sustainability of the Azerbaijani economy. In short, let's look at some of the indicators for 2017:

- unemployment rate – 5.0%.
- poverty level – 5.4%.
- number of the new workplaces opened – 221.000, 177.000 out of it permanent jobs.
- nearly 2 million jobs have been opened since 2004.
- the number of families receiving targeted social assistance – 116.000, covering more than 400.000 people.
- the amount of social assistance per family – AZN 150.
- number of newly constructed schools – 133.
- 93% of the country's gas was gasified.
- the positive balance of trade balance is USD 6.2 billion.
- compared with the previous year in 2017: an increase in the non-oil sector - by 2.5%; non-oil sector in industry - 3.6%; agriculture - 4.1%; export - 19%; non-oil exports - 24%; import-1%. [5]

It should be noted that as a result of the work carried out in order to further improve the investment climate, along with the number of companies investing in Azerbaijan, their geography is also expanding. It is known that investors are interested in investing in a stable country. Altogether, the economy of Azerbaijan has invested USD 225 billion throughout 2004-2017. During this period, foreign investment in the country's economy amounted to USD 107.2 billion. In order to ensure sustainable socio-economic development, the state-funded investment expenditures have grown dramatically and investment costs have a significant impact on the state budget. Foreign trade turnover in the first 11 months of 2017 amounted to 21.8 billion, while commodity exports increased by 19% and exceeded USD 14 billion. Funding of all the planned projects was ensured by investing 2 billion 690 million AZN on investment expenditures at the expense of the state budget of 2017. The country's strategic currency reserves increased by 26.2 times in 2017 to USD 42 billion in 2003. Azerbaijan occupies one of the leading places in the world by volume of foreign exchange reserves. At a meeting of the Cabinet of Ministers dedicated to the socioeconomic development of the country in 2017 and the challenges ahead, the President Ilham Aliyev stressed that USD 14.6 billion investment in the country's economy is a very good indicator. This shows that both local and foreign investors are interested in investing in our country: "This is also a manifestation of the stability I have mentioned. Because investing in foreign countries in the current financial and economic situation is not acceptable by many investors. However, investments in foreign countries and countries with good future are fixed. That's why I think about attracting about USD 15 billion a year is a great achievement."

Azerbaijan, which is a political, economic and cultural center of the region, pursues an independent, thought-proven, independent policy, today is known as the venue of political stability, peace, progress and tolerance in the international arena. Selection of 155 non-permanent members of the UN Security Council by Azerbaijan in 2011 is one of the most honored pages of our independence. Today, the tricolor flag of independent Azerbaijan, whose voice comes from the most influential tribunals in the world, is dominated by large-scale social-political and cultural events, and prestigious organizations. Our country has become a venue for international events of global importance, humanitarian forums, intercultural and inter-civilizational dialogue, as well as I European Games, Formula One races, Islamic Solidarity Games, Eurovision Song Contest. Azerbaijan's achievements have also been reflected in the reports of international organizations and financial institutions. Azerbaijan ranked 35th in the 2017-2018 Global Competitiveness Report of the World Economic Forum in terms of competitiveness among 137 countries. From 2005 to 2017, our country has risen from 69th to 34th in the Global Competitiveness Report, raising its 35th position and maintaining its leadership in the CIS since 2009. Even countries like Italy, Russia, Indonesia, India, Turkey, and the South African Republic, which is included in the G20, are also behind Azerbaijan for their economic competitiveness index. In 2018, Azerbaijan ranks third among the developing countries in the index of traditional inclusive growth of the World Economic Forum (WEF). [6] "The index of inclusive index, developed as an alternative to gross domestic product, more clearly reflects the criteria people have evaluated economic progress in their countries", AZERTAJ reports.

4. THE SCOPE OF ECONOMIC SECURITY

Economic security includes the protection of the interests of citizens, society and the state from a wide range of foreign and domestic threats, from a variety of political, economic, and informational vital interests. The vital interests are of interest to satisfy these interests in a safe way for the progressive development of the identity, society and the state. Basic security facilities include the rights and freedoms of an individual, the material and moral values of society, the constitutional order, sovereignty and territorial integrity of the state. The economic security of the country is measured by the ability to prevent threats to individual economic fields. At this point, undesirable changes in threats are possible or actual losses. The principle of maximum effective use of natural and geographical resources of the country should be reflected on the basis of the strategy of ensuring economic security. At the same time, optimization of financial and labor resources flows should be taken into account. Prior to describing the key elements of the economic security strategy, the main interests should be considered. Let's also analyze the main threats to the formation of safe areas and priorities. Concerning the interests, it is important to clearly distinguish all interested groups. Each group has interests that are expressed in actions and strategies. In this regard, the interests can be distinguished by carriers such as government, real sector companies, people and foreign ventures operating in our country. In modern Azerbaijan, the nature of the interaction of various economic interest groups has a number of features. From real-life experiences, many institutional levels are differentiated by the adaptation of interests and raising the level of financial and economic security. Thus, the interests are adapted to the state, corporate and social levels. Each carrier has its own interests that are intersect and contradictory to each other. For example, the state is interested in high tariffs in order to increase economic efficiency as a proprietor in a number of economic fields. On the other hand, large tariffs can lead to price-grade and social tension. However, social tension can be attributed to the redistribution of the revenues in favor of the poorer population groups. The problem of curiosity, problem, interest, and danger entails the competent authorities to develop a concept, strategy and program of security.

It is advisable to consider some of the key aspects of the problem, to list the hazards and to develop a security strategy on that basis. It should be noted that, in any situation, the risk may be negative or positive, depending on whether the risk will be positive or negative. Many uncertainties, conditionalities, and discrepancies emerge at the risk analysis stage. Here it is possible to conclude that in the course of development, it is necessary to consider the possibility of relapse of dangers. It should be noted that in many publications in recent years a number of approaches to the classification and evaluation of many hazards have been covered. Security, adequate economic, political, organizational, and other threats to the vital interests of the individual, society and the state. security measures are achieved through the unified state policy in the system of characteristic measures. A system of legal norms regulating relations in the field of security is being developed to create and support the necessary level of security in Azerbaijan. It also identifies the main areas of activity of the state power and governance bodies, the security agencies, the mechanism of control over the activities of these bodies, is being reorganized. State-regulated social-economic entities are empowered in accordance with law to implement the functions of ensuring the economic security of the identity, society and government in the public administration system. The state of economic security is determined by analyzing the system of indicators. These indicators allow the complex and adequate understanding of the nature of socio-economic processes by ensuring compliance with national interests and economic security requirements. All this requires a number of state-level measures: [7; p. 185]

- Establishing a permanent body that undertakes a comprehensive analysis of monitoring data, identifying potential threats and forecasting development in the economic sphere, preparing information for government officials on economic security as well as giving recommendations to management bodies. These authorities are responsible for the development and implementation of economic policies and the impact of hazardous factors on the country at that time.
- establishing a permanent analytical information base for economic security indicators;
- normative definition of the main sources of primary data on economic security, the responsibility for the preparation and implementation of the information security policy and the study of the proposed management body;
- Governing bodies take measures to eliminate factors that hinder the economic security in accordance with their competence framework and the real economic situation, as well as the determination and justification of transitional amounts of economic security indicators.

Financial security combines the complex measures, methods and means of macroeconomic protection of economic interests of the state, micro-level corporate structures, financial activity of economic entities. Financial security in macroeconomics is the ability of the state to react adequately to foreign and domestic negative financial effects in a peaceful environment and in emergencies. Financial security is the ability of the state's financial system to meet its financial needs in a timely and reliable manner to support the country's essential economic security. Financial security includes financial and budgetary-tax, monetary-credit, socio-economic, international-finance, etc. in this area, it is achieved through activities in neighboring spheres. In this regard, the concept and strategy of financial security should be reflected in the state's economic security concept, budget-tax, monetary policy, etc. In particular, there are many wealthiest countries in the world with wealth and underground resources to establish state reserve funds to provide financial and economic security. The State Oil Fund was established in 1999, taking advantage of this practice in Azerbaijan. The budget of such funds largely depends on the conjuncture factors, as a rule, on raw material prices in the world. Also, a number of countries are collecting spare funds for the period when natural resources will be exhausted.

5. CONSLUSION

The Sustainable Economic Development theory is not only the most widely studied, rapidly developing and well-known new theory of recent years, but also as a completely practical theory. Thus, most developed countries of the world consider it important to pursue sustainable economic development, as well as applying the concept of sustainable development as the base ideology of all official state and international documents in recent times. The long-term consequences of today's economic decisions are at the heart of a sustainable economic development concept. Negative economic complications and future displacements for the next generation should be minimized. Thus, the problem of economic constraints, the problem of compromise between current and future consumption should be based on the development of a socio-economic development strategy of any country in the long run. The Azerbaijani economy has entered a qualitatively new stage. New economic reform trends have been identified on the transformation of global economic challenges into the national economy. At present, the main task of the Azerbaijani state is to build and constantly develop a sustainable economy that meets global challenges. It is the main strategic line of our state. In line with this development course, the priorities of the Azerbaijani economy can be summarized as follows:

- transition to a model of innovative development;
- protection of macroeconomic stability;
- Stimulation of non-oil sector development;
- the most important thing is to direct the achievements gained to further improve the welfare of the country's citizen.

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ISSUES CONCERNING IMPLEMENTATION OF THE INNOVATIVE DEVELOPMENT STRATEGY IN THE PUBLIC ADMINISTRATION SYSTEM

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ABSTRACT

Accomplishment of innovations is very crucial in purposes of increasing efficiency in productivity. The state policy on innovative development is closely related to activities accomplished by an enterprise. Management of innovative processes depends on formal market coverage of a region, scope of scientific researches, level of practical-construction works, industry production and demand for innovations. The factors hindering innovations in industrial enterprises, expenses allocated in the industry according sorts of innovations, the capacity of innovation products on novelty level and kinds of economic activities have been determined, present international practice on innovation society, the essential concepts and indicators of social innovation policy have been researched, as well as the steps carried out on the direction of innovationizing of the republic and the novelties introduced by the State Agency for Public Service and Social Innovations under the President of the Republic of Azerbaijan within the framework. The purpose of the research is to ascertain tasks on development of innovation policy and to study successful implementation of innovations in appropriate management system. The scientific novelty of the research is installation of the remedies to establish informational, spiritual and intellectual values when producing scientific-technical products, commodities, fulfilling works and rendering services, as well as appropriate development of a state strategy for innovations in this direction.

Keywords: *innovative production, innovative development, innovation strategy, scientific and technical potential, scientific innovations*

1. INTRODUCTION

All the areas connected with the people in society are eventually characterized as social spheres. But in the modern world, the power of each state is measured by the social life, the level of living and welfare of its people. Social policy is a necessary part of the domestic policy, which is closely linked to the level of economic development of each state, as a system of measures aimed at ensuring the living standards, income growth, employment, social protection, health, education and culture. In general, innovation is used in the sense of innovation. For the first time, the term "innovation" was included in the scientific circulation by C. Shumpeter's "Theory of Economic Development". Innovation is emerging of a unique product or service that has never been used before and a product of an independent creative work [1, pg. 26]. Innovations have been instrumental in the development of human society. Transition from one stage of development to another, at different stages, it was possible for them to rise to the level of world leaders in different countries. It is also known that historically the replacement of Eastern and Western civilizations as a place of science and innovation has been linked to the vital importance of innovations. Innovations that are of primary importance to the overall socio-economic policy of the state, as well as for achieving national goals, have major state support. In this regard, innovation projects in such areas as food processing and processing, fuel and energy complex, chemicals, new materials production, information and communication systems, transport, space exploration, biotechnology, nature use, medicine, socio-cultural development are of particular importance.

The above mentioned development trends make the development of all kinds of innovations and formation of the national innovation system a vital issue during the era of the current information and science-based society building. The social orientation of innovations, which involves the immediate majority of society, is in the forefront.

2. BASIC CONCEPTS AND DIRECTIONS OF INNOVATION POLICY

The state's innovation policy consists of a set of forms, methods, and trends that affect its production, as well as the expansion of local commodity markets, in order to release its new products and technologies. The state innovation policy is also understood as a complex of objectives and methods of influence of state structures on the economy and, in general, the effectiveness of innovation processes in society. State innovation policy should be complex and mutually relevant, and the results of sudden, isolated measures to stimulate innovation are small. In modern conditions, as innovations have a comprehensive coverage of economic life, state innovation policy becomes the main component of state regulation of socio-economic processes. Innovative policy measures of the state can be split into directives and initiators directly involved in installation of favorable environment for innovations and innovation processes. Innovation policy has time and place aspect. The time aspect determines the state's activity in the current period of time and in the long run in the field of innovation. Therefore, innovation policy is divided into current and long-term policies. Current policy consists of operative regulation of innovation activities. The long-term innovation policy is primarily focused on addressing critical issues that require greater timeframe, workforce and capital expenditure. It covers a fairly long time. The objectives and trends of the government's innovation policy are first and foremost determined by the specific features of one or another field, its production-economic potential and the competitiveness of the main product. Thus, the key element of the innovation sphere's public administration system is the financing mechanism, the organization of research and improvement of the tax policy, namely:

- allocating up to 3% of expenses part of the state budget for the financing of citizen-targeted scientific-research and experimental-construction works (SRECW), with further stabilization of the economy by increasing this share to a level which is typical for highly developed countries annually;
- sustainable state funding of the State Academy of Sciences, science centers and organizations, state universities and other higher education institutions, scientific libraries, museums and information centers working on priority areas of science and technology;
- ensure a large number of sources of funding for SRECW with the active support of targeted state funds;
- establishing favorable conditions for science investment by industrial enterprises, banks, international organizations and individuals;
- the development of competition principles for scientific programs and projects by involving control over the use of funds and the transparency of the decisions taken;
- implementation of the contractual system into the sphere of scientific-technical and experimental-design works;
- applying tax and customs privileges to stimulate and support scientific activity;
- establishing facilities and providing necessary resources for scientists to participate in international projects;
- establishing favorable conditions for the functioning of public scientific associations.
- The necessity of state regulation of innovation processes comes primarily from the increasing importance of the economy and the society as a whole. The most essential effect of innovation is the following:

1. Influence of innovations on macroeconomic indicators. Economic growth is based on the combination of extensive and intensive factors.

Extensive factors include the mass used in the production of primary resources - labor force, material composition, soil, and so on. - Explains growth; intensive factors - improving the quality of used resources and increasing the intensity of their use. In today's world, increasing capacities of the able-bodied population and increasing the product and service delivery through the involvement of new natural resources into the economic turnover are increasingly limited. Intensive factors are essential for economic dynamics. In turn, the increase in the level of professionalism and productivity of staff, material and equipment is determined by the achievements of science and technology, advanced experience and the degree of its use in the economy, i.e. the spread of innovations. The participation of the scientific-technological progress (STP) in the growth of the gross domestic product in the most developed countries is 75 to 100% according to various estimates.

2. Influence on the structure of public production. Under the influence of innovation processes, the structure of the economy varies. Due to the increased use of resources, some of them are released and distributed to other spheres of activity. Thus, the share of those employed in agriculture decreases, and the share of those involved in the sphere of services increases. Innovations lead to the establishment of a production and fields, while others gradually die and disappear.
3. Development of new, more dynamic forms of production and state regulation. Innovations change the economic organization of society. New elements (e.g., venture firms) are formed in key economic structures, transforming the content of the interaction between them. Management technology develops - vertical effects are improved and replaced by horizontal relationships.
4. Changing the Consumption Structure. Innovative processes affect not only production, but also practically all aspects of social life. Consumption structure of both material and non-material benefits is improved.
5. Influence of innovations on social stability. Innovation processes are increasingly social. Not to mention that the innovation generated economic growth promotes the improvement of the living standards of the population, while innovations also help to solve the problem of employment with the opening of new high-paid jobs. This, in turn, contributes to the improvement of education and health.
6. Improving the ecological situation in the country. The intensity of innovation processes in the modern world greatly exacerbates the ecological problems. Scientific and technical achievements allow the use of irreplaceable resources and harmful waste by improving innovation, production and consumption structures. These problems are especially relevant when adopting the concept of sustainable development in the 21st century, which calls for stable ecological balance.
7. Development of international scientific, technical and economic cooperation. The cooperation of various countries in the innovation sphere is observed in different ways – the creation of global scientific and innovative infrastructure in the internationalization of resources, both in materialized and non-materialized form of technology, in order to obtain new scientific and technical results, and spreading of global characteristic of its essence. In a modern world of STP, a country, even the developed country, can't overcome such innovation projects. [2, pg. 167] Full integration of the world's innovation processes is not possible without adequate scientific and technological base of the country, as well as mechanisms for the adoption of innovations. The level and effectiveness of the country's access to the international division of labor is characterized by its position in the global market of goods and services, as well as the availability of qualified specialists. This position is gradually increasingly determined by the advantages inherent in nature reserves or with other advantages of extensive nature, with innovations that ensure product competitiveness.

8. Influence of innovation policy on national security. At present, innovation is one of the essential components of state security. This situation has both external and internal aspects. As for the first, the conversation is about scientific-technological security, i.e. the existence of a strong enough scientific-innuendo potential that allows the country to resist any dictatorship in terms of limiting the use of cutting-edge technologies, the breakdown of basic technological chains. The development of scientific and innovation potential is particularly important for the country's defense capacity building. The internal aspect of the issue is related to the spread of innovations that can prevent accidents, natural disasters, terrorist acts and other illegal acts, and minimize their negative outcomes.

3. SOCIAL INNOVATIONS

Undoubtedly, social innovation also serves to ensure national security. Social innovation is closely linked to the formation of electronic state and information society during the globalization period. In the current period, almost every country in the world is preparing and implementing international and national programs for the transition to information society, as well as to the e-government. The social innovation policy is a multifaceted activity, which is implemented by the state, reflecting new strategies, concepts, ideas and organizations that are aimed at raising the living standards of the population, meeting the various social needs. Social innovation policy is based on the unity of social state-building and social protection and social justice ideas. In this process, the complete rebuilding of the social infrastructure takes place at the following stages:

1. social environment analysis;
2. development of software and strategy for innovations;
3. their implementation;
4. evaluation of results.

Social innovations can be complicated and have both internal and external sources of development, clear and hidden, internal and external development mechanisms. For this reason, their purposeful, purposeful, and spontaneous (non-arbitrary) forms are distinguished. Members of society can be both active participants in innovation processes, and can be influenced by innovations that can't be positively or inescapably appreciated [8]. Social innovations have different goals, which are reviewed in the next two subdivisions.

3.1. E-government

Realization of innovations in modern state administration is closely linked with the building of e-government.The term "e-government" is a product of recent times and does not have a single definition of the unit. Sometimes this term is mixed with the term "electronic government" and these two terms are used interchangeably. It should be noted that the governance is a broader conception and also involves the decision-making process, the relationship between government officials and the public. The use of ICT by the government, civil society, and political institutions to promote citizen participation in electronic governance. Electronic government can be considered as an integral part of the e-governance system. E-government is an essential mean of ensuring national innovation systems and efficient management. In recent years, most governments seek to increase transparency and transparency in their activities. As one of the main obstacles to economic development, one of the most effective tools for preventing corruption is building e-government. The idea of e-government emerged in the twentieth century is a means of ensuring transparency as it is a means of institutional reform.

3.2. State Agency for Citizens Service and Social Innovations under the President of the Republic of Azerbaijan

Decree of the President of the Republic of Azerbaijan of December 29, 2012 "On Approval of the Development Concept" Azerbaijan 2020: Looking to the Future "was emphasized as one of the main goals of the innovative society building. Social innovation is one of the key components of the organization and management of the National Innovation System in Azerbaijan, one of the key components of the innovation infrastructure. Establishment of the State Agency for Citizens Service and Social Innovations under the President of the Republic of Azerbaijan on July 13, 2012 is one of the important measures for modernization of public administration, enhancing transparency and forming a new style of governance. "The agency is based on the need to increase transparency in public bodies, to provide citizens with better quality, comfortable, new style and application of modern innovations, compliance with ethical rules for citizens and ensuring citizen satisfaction. Establishment of the agency is of great importance for the development of the relations between "civil servant" and the formation of new thinking styles and methods of action for officials" [9]. The number of services provided at ASAN service centers has been increased and the number of functional support services has been increased and more than 130 types of services have been provided to citizens, by the Decree of the President of the Republic of Azerbaijan dated February 11, 2014.

4. STATE INNOVATION POLICY

One of the important issues of innovation policy of the state was the coordination of the work of the executive authorities, the authorities of the Azerbaijan Republic and the municipalities in order to develop a comprehensive approach to innovation development, efficient functioning of the innovation system and implementation of state innovation policy. In this regard, the mechanism for implementing the state's strategic and innovative function is followed. [3, pg. 142]

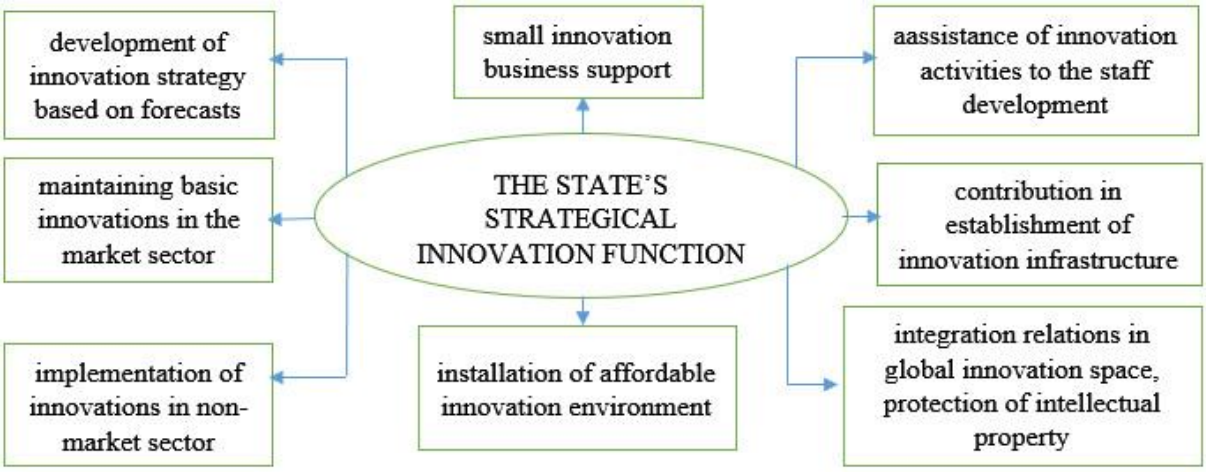


Figure 1: Realization of the strategic and innovative function of the state

According to the picture (1) it is possible to define the main tasks of the state's innovation policy: [4, pg. 72]

- selecting regional strategies and priorities for the development of innovation when critical technology and innovation projects are implemented in industry, affecting productivity and product competitiveness;
- development of a comprehensive approach to the solution of innovative development issues;

- maintenance and development of scientific and technical and production-technological potential;
- maintaining and developing the training system of scientific and pedagogical workers and specialists;
- ensuring access to higher technologies;
- establishing favorable economic and financial conditions for a wide range of innovation activities, eliminating legitimate entrepreneurship and unfair competition;
- organizing specialist training and re-training system in the field of innovation entrepreneurship;
- implementation of world standards on product quality and environmental protection.

According to some analysts, in the case of a general crisis, innovation in the regions can only be activated on the basis of an effective regional innovation policy. Both regional and central authorities should be directly involved in its implementation. Regional innovation programs should include the following sections:

1. Analysis of the state of scientific and innovation sphere in the region.
   It should reflect in the section: the level and extent of use of innovation potential; perspectives and directions of innovation activity, its scale and influence on competitiveness of regional products; structural and institutional changes; conditions for innovation activation.
2. Goals and development priorities of the scientific-innovation activity in the region
   It is proposed that the system and structure of the objectives be based on the following principles:
   - regional goals should come from the concept of general scientific and technical and innovation development of the country and should not be contrary to strategic goals;
   - regional objectives should be expressed in consideration of regional characteristics and needs;
   - The objectives of the regional program should not be based on the availability of resources and capacities; on the contrary, the reserve program should be formulated for specified purposes;
   - The goals setting and overall goals program should be developed at the level of modern methods with extensive use of independent experts and expert evaluating systems.

   In this project, the most realistic approach to choosing the development priorities of the innovation sphere is the proposed approach to the global criteria of scientific and technical progress and the development of high technologies. It is proposed to consider achieving the goals of its socio-economic development as the second generalizing medium in the selection of science-innovation development priorities. In this case, the main task of regional governance bodies is to establish favorable economic environment and conditions for innovation activity in the scientific and innovation sphere.
3. The means and remedies to achieve goals
   It should reflect the structural and institutional changes in the scientific sphere, the development of regional innovation infrastructure (innovation funds and banks, venture firms, scientific and technological parks and business incubators).
4. Types of provision of regional scientific and innovation policy
   It should reflect in the section: Types of provision of innovation policy as organizational, information, legal, human and social-psychological (as well as justified). In the Innovation Development Program of the Republic of Azerbaijan, the key role in the development of innovation activity in the field should be allocated to the territorial government, as the state should focus on the implementation of innovation policy in the central regions.

The real support of innovation processes in the regions is one of the key factors that contribute to the formation of innovation climate and the production of competitive products. In order to activate innovation activities in the regions, within the competence of territorial authorities, it is necessary to install institutional and economic conditions for the development of innovation activities and innovation infrastructure, and to establish responsible structural divisions for the development and implementation of regional innovation programs. Regional innovation programs should be based on the economic and social development programs of the regions and should identify the key development priorities of innovation infrastructure and innovation potential, including staff training, stimulation of specialized subjects of innovation activities and methods.

The functions of these structures are particularly consist of: [5, pg. 356]

- control over the development, approval and implementation of regional innovation programs;
- formation of innovation infrastructure (technoparks, business incubators, regional innovation funds, centers, etc.) in the regions;
- creation and regular replenishment of regional data bank of scientific works of the country in the field of technology, management, new goods and services;
- establishment of regional centers for professional training and coordination of innovation activities for the innovation sphere;
- attraction of investments for the organization and development of science-intensive production, the introduction of resource saving and ecologically clean technologies, modernization and reconstruction of existing industrial enterprises in the region (including the financing of innovation projects from the field budget, public and private innovation funds);
- allocation of land, equipment and grants to innovation subjects;
- development of proposals for support of innovative activity subjects at the regional level;
- installation of a technology transfer network (including propagation of innovation activities and promoting innovation by attracting industry-chamber chambers outside of the region).

Only such a complex approach will enable innovation in the regions of the republic. In addition to the above, it is necessary to pay attention to the factors that prevent the development of innovation in Table 1.

Table 1: Factors hindering innovation in industrial enterprises in 2008-2018 in Azerbaijan

Economic factors	Production factors	Other reasons
shortage of own funds	low venture innovation capacity of enterprises	absence of demand in new production as a consequence of earlier innovations
insufficient funding from the state	lack of skilled workers	absence of legislative and normative-legal documents regulating and motivating innovation activities
low effective demand for new products	shortage of information pertaining new innovations	undetermined deadline of the innovation process
high value o innovations	non-admission of innovations by enterprises	underdevelopment of innovation infrastructure (mediation, information, law, banking and etc.)
high economic risk	lack of information about sales markets	technology market underdevelopment
prolonged reimbursement periods of the new products	shortage of cooperation with other enterprises and other scientific organizations	

4.1. State support for the development of innovation activities

Basic principles of state support for innovation activities. The experience of economically developed countries shows that sustainable economic development in the context of global economic competition is driven by the high level of application of new technologies and products in production. According to various estimates, today 70 to 100% of production growth in these countries is due to the use of innovations.

The state stimulates the development of innovation activity in our country by providing the necessary economic, financial, organizational and normative-legal conditions.

Economic conditions include: [5, pg. 356]

a) carrying out tax policy and pricing policy that promotes growth in the innovation market;
b) providing efficient employment in the innovation sphere;
c) rendering various kinds of financial support to the enterprises of the country adopting and disseminating innovations, making tax and customs privileges;
d) assisting modernization of the technique;
e) development of productive leasing;
f) animation of entrepreneurship;
g) prevention of unhealthy competition;
h) development of foreign economic relations in the sphere of innovation;
i) foreign economic support, including customs incentives for innovation projects included in government innovation programs.

Financial circumstances include:

- implementation of the budgetary policy ensuring the financing of innovation activities;
- allocation of direct public investment for the implementation of innovation programs and projects that are of utmost importance to the state, which are uninteresting for individual investors;
- establishing a favorable investment climate in the innovation sphere;

granting subsidies, preferential loans, guarantees to domestic and foreign investors involved in innovation activities.

Organizational conditions are following:

- formation and implementation of state, regional and regional innovation programs;
- innovation infrastructure development;
- assisting in the preparation, re-training and professional development of innovation personnel;
- information support for innovation activities (information about state innovation policy priorities, materials provided and completed, and free use of innovative projects and programs may be the basis for innovation activities);
- assistance to integration processes, expansion of interaction of regions in the sphere of innovation, development of international cooperation in this field;
- promotion of local innovation products to world markets;
- protection of interests of subjects of innovation activity in international organizations.

Regulatory and legal conditions include: [6, pg. 28]

- determination of legal basis of mutual relations of innovation subjects;
- ensuring the protection of the rights and interests of subjects of innovation activity, including intellectual property rights.

In order to regulate innovation processes, the state supports both direct and indirect innovation activities. The direct state support for innovation activities are accomplished based on the selection of priority areas of science and technology and the definition of a list of "crisis technologies", targeted financing of projects from the state budget and joint financing of projects and programs implemented by non-governmental structures, the formation of innovation activity infrastructure and so on. Indirect incentive measures on innovation activities include the use of fiscal methods (preferential taxation, rapid depreciation, separate markets, regulation of the fields) the regulatory framework for the creation, transfer and protection of intellectual property, as well as the formation of favorable conditions for the activities of the structures involved in the commercialization of scientific knowledge.

5. TASKS TO BE IMPLEMENTED IN AZERBAIJAN FOR INNOVATION-DRIVEN DEVELOPMENT

For the decade ahead, the following directions have been identified for innovation-oriented development and modernization of the Azerbaijani industry:

1. The Azerbaijani industry should be developed innovatively. For this purpose, it is necessary to adopt modern technologies in Azerbaijan's entrepreneurship, big companies, increase the competitiveness, quality of products and increase the production of export-oriented products. This policy has been stratified since 2007. In 2010, more than 5 times more products were produced than modern technology in 2007.
2. Ensuring dynamic, sustainable development of the Azerbaijani industry. For this purpose, it is necessary to further develop, strengthen and enhance competitiveness of foreign and national entrepreneurship. For this aim, attention should also be paid to the fact that entrepreneurs invest in the Azerbaijani industry outside the country, foreign entrepreneurs. This policy has also been an essential component of economic policy in Azerbaijan. But at the same time it was important to build entrepreneurship and to gain experience in modern times, to increase the competitiveness of entrepreneurs and strengthen their positions on the world markets, the acquisition of new markets for industrial products.
3. Providing comprehensive, comprehensive development of Azerbaijan's economy, especially the leading industry. The heavily-specialized industry, which has a considerable place in the Azerbaijani industry, should be integrated and competitively interconnected with the knowledge economy.
4. Modernizing the industry's staffing. To do this, the development of human capital as a whole and the transition to a new quality, ensuring the growth of the proportion of highly educated, secondary special education among the population, raising the creative thinking skills for the industry, "adapting their level of preparedness to the requirements of the creative economy". To this end, the work on revitalization of the education system in the republic should be accelerated, integration of higher education, science and economy should be strengthened, technical vocational education should be expanded and this educational level should be adjusted to the requirements of innovative economy.
5. Adding new sources of growth to the traditional economy of the republic and traditional GDP growth sources. For that aim, It's necessary to continue the work on establishment of new sources of economic growth commenced in recent 5-6 years in the republic. Reconstruction and development of the Baku-Tbilisi-Kars railway, International Maritime Trade Port in Alyat, TANAP Pipeline, East-West, North-South transport corridors, will play an essential role. New sources of economic growth may include technoparks, companies that develop and implement high technologies, industrial campsites, shipbuilding plants and other similar businesses.
6. Improvement of the normative-legal base of innovation development, modernization. Continuing the work done in this direction should contribute to the efficient, innovation-

oriented development of the economy as a whole, by installing favorable conditions for innovation, the modernization organizations and other subjects.

6. CONCLUSION

Generalizing the aforementioned issues and challenges, we can conclude them in the following form:

- There is a problem of determining the state's priorities in this area because of the limited resources that society and state can invest in science, technology and innovations. Depending on the size, the state will have global (global), international and national priorities in the field of innovations.
- Selection of priorities and the support of research and development on their basis and the selection of separate scientific organizations associated with them are a key element of state scientific and technical policy.
- When choosing state priorities in the field of scientific and innovation development, it is impossible to exclude subjectivism completely. Therefore, the issue is to ensure independent expertise of innovation projects before the government. It would be convenient, if the expertise procedures involved all interested parties - developers, educators, government agencies, scientific community, public organizations, and so on. representatives to participate. [7, pg. 154]
- The process of choosing the priorities should be based on the interconnection between the directions, as well as the new areas that have high innovation potential, but which do not have the financial resources and organizational structures necessary for lobbying. In this regard, researches based on studying flow streams, bibliographic references, patent and other information media are of great importance.

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THE NECESSITY OF THE ORGANIZATION OF INNOVATIVE PRODUCTION IN THE REGIONS

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ABSTRACT
This paper provides an assessment of the priorities that have recently ensured the development of the agricultural sector of the Republic of Azerbaijan, as well as clarifies the role of infrastructure development for the country's economy. The development of infrastructure in rural areas contributes to the alleviation of unemployment, the formation of a highly skilled, intellectual, cultural stratum of workers.
Keywords*: region, innovation, production, economics, modern condition, country, products*

1. INTRODUCTION

Today the world is characterized by the transformation of the world economy into a globalizing economic system and by the intensification of intergovernmental economic and trade relations. In each country, there are efforts being made to produce high-quality and more competitive agricultural products for the purpose of satisfying domestic needs and ensuring efficient commodity exchange in the world economic system. Holding a dominant position in the field of raw material, material and services is based on a number of natural, economic, technical, professional as well as comparative and other advantages of countries. In order to organize innovative production, countries can both meet their needs and access to effective commodity exchange in the world market, by promoting the areas with comparative advantages. Azerbaijan has sustainable production resources, effective cultivation and cattle-breeding, developing processing industry based on innovation technologies, qualified personnel working in the national agrarian sphere, and modern infrastructure. Given these opportunities, the organization of innovative production is of great necessity in the regions of our country.

2. THE IMPORTANCE OF INNOVATION TECHNOLOGIES IN REGIONS

Favourable climatic conditions in Azerbaijan paved the way for the development of agriculture in this area. Yet, Azerbaijan has historically been a land of cultivation, cattle-breeding, and silkworm breeding, fruit-growing, livestock etc. Today our country has diversified and even more developed agriculture. Thus, in recent decades, Azerbaijan has gone through substantial growth in the fields of output of various plant products (grain, cotton, tobacco, grape, fruits and vegetables, etc.), (cattle-breeding, sheep-breeding, poultry, sericulture, apiculture etc.). With regard to the development and implementation of appropriate complex measures, the important tasks have been set before farmers, including scientific and pedagogical staff of scientific-research institutes and higher schools, according to the Decree of the President of the Republic of Azerbaijan "On measures to accelerate the Socio-Economic Development in the Republic of Azerbaijan" on November, 24, 2003, accelerating the socio-economic development of the regions. In this regard, one of the main tools for carrying out the country's strategic development plan is the development and realization of regional development programs, which proves itself in international practice. These programs involve the issues of organizing and improving the infrastructure [1, p. 1].

The State Programs on Socio-Economic Development of the regions of the country (2004-2008, 2009-2013 and 2014-2018) create great opportunities for the development of the infrastructure. Thus, based on achievements of a conference dedicated to results of the implementation of the State Program on Social and Economic Development of the regions of Azerbaijan, the President of the Republic of Azerbaijan, Ilham Aliyev once again showed that there is a possibility for the agrarian sector to raise the quality of product and to enter the foreign markets. At the same time, there is also some advanced processing industry in the country, which traditionally functions on the basis of local agricultural raw materials. Thus, the manufacture of canned fruits and vegetables and juice, including tomato, vegetable oil, beer, wine products, tea, meat and dairy products, cereals (flour-milling, semolina and mixed feed, bakery goods and paste), and the production of cotton, wool, cocoon and leather raw materials, and fermented tobacco is rapidly developing in the agricultural processing industry of Azerbaijan. In addition, it should be noted that there is a possibility to significantly increase the production and manufacture of a number of valuable essential oil, food, perfumery and natural colouring products (rose, olive, pumpkin seed, saffron) and floriculture. The agrarian production sphere of the country's economy has been formed on the basis of the former Soviet Union interests, and the application and introduction of innovative technologies to the country have not been possible. Therefore, in order to effectively integrate our country as an independent subject into the global economic system, the competitive advantages we have in the world markets are appreciated first. In accordance with the presidential instruction, the development of agriculture and processing industry is based on the latest innovation technologies so that specific weight of quality goods, which is the main advantage of manufactured products, increases annually and takes an opportunity to get access to the foreign markets. On the basis of existing theoretical approaches and defined methodology, competitiveness of all sectors of cultivation and cattle breeding on the country's agricultural sector, and the factors affecting it were assessed in a comprehensive manner. At present, we witness once again the successful implementation of the "the State Program on Socio-Economic Development of the regions of the Republic of Azerbaijan in 2014-2018" under condition which innovative production forms and develops in the regions [2]. Thus, the work on expanding artificial insemination measures among animals continues to improve the gender composition of livestock. Artificial insemination specialists who have completed the course are provided with artificial insemination equipment, towing motorcycle, liquid nitrogen and animal seeds at the expense of the state budget. The establishment of milk reception centres in the regions is underway to provide the processing stations with qualified and uninterrupted transportation of milk being produced in the republic. The works in the field of building the large dairy and meat farms proceed. The tender was held in August and September of the current year and it is planned to bring 7100 heads of highly productive Holstein-Friesian and Simmental breeding cattle to our country. The animals brought by leasing will be placed in large farms and farmers will be given advice on storing, feeding, breeding and reproducing these animals.

3. THE NECESSITY OF FORMING INNOVATION IN MODERN CONDITION

The transformation of material values and economic potential into human capital development gives impetus to the development of innovation in the country's infrastructure. The fields covering this section are quite extensive. Scientific-research works based on new technology, and science, education, protection of intellectual property, health care, health facilities, sports tourism complex, culture, preservation of historical monuments serve human factor and require sufficient financial means. Australian scientist I. Schumpeter argues that there are five signals in the innovation process: the usage of new techniques, the provision of a new technological process or production with a new market; the use of new-featured product and new raw material; changes in the organization of production and logistics; the emergence of a new sales

market [3, p.215]. K.V.Pivovarov from the Russian Academy of Economics named after G.V.Plekhanov clarifies the innovation terms and explains in detail that innovation should be based upon something new; it should meet market's needs; it should bring profit to the manufacturer [4, p.125]. The United States and Japan defined the path of innovation 30-40 years earlier than European countries. European countries first attached importance to innovation problems at the state level in 1980s and 1990s. The state has changed an innovation into a priority of economic development by means of direct and indirect encouragement of the protection of intellectual property, new technology-based scientific-research works and innovation-based production areas. At first, due to the lack of adequate staff, emigrants who could meet these requirements were provided with high-paying jobs and housing. Science, education, and vocational training are based on the requirements of innovative areas. At that time, innovation turned into a business area, and small, medium-sized firms, rich businessmen ("business angels") invested in this area. The investment in human capital also proved to be productive. Leading countries give preference to trade in goods, material, machine, bench, equipment and ready-made modules. The leading western and European states, specializing in innovation, draw the attention of states and businessmen, by organizing trade fairs dedicated to trade in technology, scientific and technical knowledge, and engineering services in the territories of interested states [5, 6, 7]. The company not only undertakes the construction of a new technology-based plant, its next service, and training of local specialists, but also provides its employees with high-paying jobs on a contractual basis. In world practice, companies apply and test scientific and technical innovations, including new technology in their own countries, and finally sell licenses (patents). Innovation-oriented intellectual technology works in the form of new partnership in the global economic system, exporting to foreign countries by seeking more efficient production conditions [8, 9]. Innovation technology is based on the need to work effectively in the international arena, cheap domestic raw material, cheap material, cheap workforce, and sufficient infrastructure and state support. The new technology, operating on the territory of several countries, leads to the creation of international economic system. Thus, investment of one country creates the second economy in another country. The US occupies the first place among the world countries for the size of economy. In the agrarian policy of our country, which has gained its independence, the establishment of AIC (Azerbaijan Industrial Complex) is based on innovation economics. For this purpose, the material-technical base of schools in the regions is strengthened and provided with intellectual staff. Institutions move to a flexible personnel training system, and a mobile scientific production complex is created. The state-controlled innovation and financial sector of the infrastructure are strongly developed on the basis of a balanced and complex socio-economic development program being implemented in Azerbaijan. Investment in the development of human factor serves to reduce poverty, unemployment, and to increase an income of the population, to improve health, and to regulate demographic situation and to boost economy of the country.

4. ADVANTAGES AND EFFICIENCY OF APPLYING INNOVATION TO PRODUCTION IN THE REGIONS

It is no coincidence that the quality factor transforms into innovative infrastructure facility in modern globalizing economic relations. First of all, innovation leads to new techniques, technology and new top-quality products. The production, consumption and position of new goods expand in the sales infrastructure such as domestic and foreign markets. The quality of food products is directly connected with human health so that it is under state control and is state's object which regulates consumption. Finally, the quality of foods determines the level of development in the economy, dominates the market, conquers the world markets, and stands in an objective position to determine the value of goods and material. Quality is the object of state security in the strategic plan.

Despite the fact that foreign goods are sold in and satisfied with the country's domestic market infrastructure, there is state control over the safety of importing products in Republic of Azerbaijan as in all other countries. Foods differ from each another by their physical, chemical properties and other compositions. The various substances in each of them determine nutritional value, importance of digestion, taste, colour, smell, shelf life, transportation conditions, structure and above all, quality of foods. Such foul-smelling chemicals as ammonia, sulphur dioxide, indole, skatole, mercaptan, volatile acids etc. come form the dissolution of organic substances when foodstuffs are kept or transported in unfavourable condition. Such food products are not edible. In recent years, aromatic compounds have been bought to artificially develop different tastes and smells in food products. The nutritional value of foodstuffs depends mostly on the chemical composition, biological and physical features. Food products are to be harmless, energetic and easy of digestion etc. Limited land and production resources, inflation and constant rise in price of mainstream and working assets encourage peasant households to take high positions in the market by producing high-quality goods and to increase the production efficiency. This innovation-oriented development based on state support is primarily related to the introduction, regionalization and seed-growing of more productive grain, potato and other plant seeds in our country. According to the concept of agricultural development, highly productive pedigree livestock are transported to our country and sold to farms at a 50% discount in order to increase demand for innovation technologies. In recent years, pedigree cows from the Netherlands have been settled in Zagatala, Sheki, Lankaran and other regions. Practically, these cows are quickly adapted to local conditions and milk 8 to 10 times more than local cows. Such innovation technologies are widely used in milk processing, production of fruit juice, vegetable oil, sugar, fruits and vegetables, and long shelf life of foods. Exporting to our country from abroad "Sandora" brandy juice is mainly made of orange, pineapple, mandarin, banana puree, canned lemon juice that are transported from African countries. Juice product rich in vitamin are sold in the markets of Russia, Central Asia and the Caucasus. As it is known from the scientific information that practically in all countries top-quality agricultural products are chosen to manufacture the natural foods for children, preferably in different attractive assortments, forms and colourful containers. The quality of food products plays a decisive role in the health and intellectual development of people, especially the young generation. Healthy and optimistic life in society and family constitute the material basis of quality food products. Despite the fact that freeze-dried breakfast foods are made and sold in different names and assortments in the large cities of Azerbaijan, assortment of freeze-dried foodstuffs imported from abroad to our country, including cake, biscuit are sold with offered prices of manufacturers. There are some people who doubt that several types of freeze-dried foods and drinks replacing fruit juice are fully made of natural agricultural products. These doubts are related to the lack of natural fruit required for the production of large quantities of goods in these countries. If these products are manufactured on the basis of natural milk, sour cream, sugar, olive oil and soybean being produced in our country, they will be able to compete with foreign products in the domestic market. It is known that the composition of milk and dairy products, olive oil, soybean is rich in soluble proteins, oil, minerals, biologically active microelements, vitamins and is essential for a healthy lifestyle. At present, tourism infrastructure in the country's economy is developing rapidly. In line with the requirements of this new area of the economy, there is a need in the country to produce high-quality national agrarian food products, which satisfies agritourism, namely the contingent of tourists. Foreign technology is being exploited and applied to manufacture top-quality goods. In terms of innovation technologies, the production of protein, oil, easy-to-use mineral substances, assortment of food products rich in selected vitamins, which can revolutionize in the region, turns into a daily work of genetic engineers, biotechnologists. Genetically modified agricultural crops are resistant to pests and diseases, and have high productivity and long shelf life.

More than 50 agricultural plants have been modernized, tested and put into production in the world countries. They are apple, tomato, pumpkin, cucumber, salad vegetables, soybean, wheat, rice, sunflower, tobacco, cotton, etc. The productivity and nutritional quality of genetically modified plants is far above their predecessors. At present over 100 plants are being processed and foods are produced from genetically modified goods in 130 countries and are put on sale. In comparison with such fields as industry, construction and others, the main reason for lag in the development of infrastructure facilities and agricultural products on the basis of innovation technologies of manufacturing and processing industry is the poor development of agribusiness in the agrarian sector, and the low level of profitability of this real sector of the economy owing to the formation of sale prices of agricultural products outside manufacturing. Agribusiness entrepreneurship is rapidly developing in our country. The professional training and intellectual level of farmers have been shaped on the basis of Soviet-era technologies. In order to overcome this gap, it is preferable to teach innovative production-oriented specialties in all higher and secondary vocational education institutions of the Republic. At present, more than 700 students study at foreign universities every year. Enlightenment system and information about scientific-technical innovations, finance, production links and other innovations can be enhanced. For example, farmers of the European Union countries can easily get information from the innovation technology website. Finally, planning of agricultural production and financial infrastructure of the economy for the first time over the past 70 years and centralized supply of these with material and technical resources have been carved in people's memories. It is a fact and we will still enjoy its results for several years. So, as it is evident from the world's developed countries and our own experience that the state cares about the application of innovation technologies.

5. CONCLUSION

In accordance with the State Program on Social and Economic Development of regions in 2014-2018, a great deal of work has been done on the basis of innovation technologies, the processing industry based on foreign techniques and technologies has been modernized with the state support, new products are put on sale in the domestic and foreign markets, unlike previous years, agrarian farms attach importance mainly to the production of top-quality products in the food processing industry, and to sorting, packaging and storing of the product. The state provides the following favourable conditions for implementing an innovative agricultural production policy in the regions of our country:

- Establishing free competitive environment derives from monopoly under the abundance of the same product.
- Providing quality of the offering products with state control.
- Increasing investment for the sound environmental condition of production.
- Increasing mineral and energy resources based on innovative technologies.

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APPLICATION OF THE HIERARCHY ANALYSIS METHOD TO ASSESS THE PRIORITIES OF BUSINESS PROCESSES IN HIGHER EDUCATION INSTITUTION

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ABSTRACT

Entrepreneurial University, being one of the elements of the new innovation model of development - the "Triple Helix" model, appears as a new balance between science, education and power. In such situations, the role of the process approach in the management of business processes in universities is growing. The number of methods to determine priorities for managing business processses is limited. In the article, based on the application of multi-criteria methods of decision-making, including the method of analyzing hierarchies, are determined by the priorities in the management of business processes in higher education institutions.The research carried out to a certain degree made it possible to refine the methodological toolkit to substantiate priorities in the management of business processes in higher education institutions. Based on the description of the advantages of the hierarchy analysis method. The conclusion is made that it is necessary to provide favorable conditions for the formation of an innovator who has a set of skills and skills necessary for the modern economy
Keywords: *business process, business function, business operation, entrepreneurial university, criteria, priority*

1. INTRODUCTION

Over the past decade, Azerbaijan has undergone dramatic changes in higher education systems, targeting universities to operate in a market environment with a high degree of uncertainty. Modern global changes in the world show that the sphere of higher education is assessed as a means of maintaining competitiveness and leading position in world markets, as one of the guarantors of national security. Zilwa D. [Zilwa, 2010] distinguished the following trends observed in education in the world.

- globalization of education;
- reduction of state financing and growth of transaction costs associated with market orientation;
- development of information technologies in education;
- mass education;
- increase in accountability to stakeholders.

Among the factors that determine these trends and influence them, we can distinguish: the acceleration of scientific and technological progress, the growth of life expectancy, global problems in the field of ecology and energy. In these conditions, institutions of higher education

require participation in the processes of generation and transfer of new knowledge to a wider population with the use of modern means of communication and information technology [Silakova L.V. 2017.p.362]. There is a transformation of the implementation of business processes within their core business. Due to the specific approaches to managing changes in this area, the methods used deserve careful attention and analysis. The future state and development of civilization depends on what kind of knowledge, qualities and abilities a person who is educated today will possess. High rates of social and economic development are impossible without a high level of management effectiveness in higher education. In this context, the issues of implementation of the process approach in higher education institutions, which includes not only the description of the university activity as a network of interrelated business processes, but also their constant control, management and improvement become topical. The purpose of the study is to assess the priorities of business processes in the Azerbaijan universities based on the hierarchy analysis method.

2. LITERATURE SUMMARY

Since the end of XX century. humanity discusses the next model of the university's evolution of the entrepreneurial model. The global economy of the 21st century stands on 3 whales: 1) knowledge; 2) technology; 3) entrepreneurial initiative. Accordingly, in the post-industrial society, the goal of education changes: if in the classical higher education this is a transfer of past experience; then in innovative higher education, the shaping of the image of future creative activity. The leitmotif of innovative education is as follows: "Do not overtake the past, but create a future". The main principle of organizing an entrepreneurial university is the harmonious unification of three basic types of activity: 1) scientific research (obtaining knowledge); 2) education, including education (transfer of knowledge and skills, 3) innovation (application of knowledge). The modern complex and dynamic institutional environment requires the transformation of the university into an innovative, competitive university, into a new type of business model with high adaptive capabilities. To do this, it is necessary to improve the management systems of universities. In the literature, there are a small number of approaches for determining priorities in managing business processes. approach Hammer and Champi [1997], Robson and Ullah [1997]; an approach developed within the PROSCI project, Crowe T.J., Rathi K. and Rolfes J.D. [2005]; Mazur's approach, etc. [2000]. Hammer and Champi [1997] suggest first of all to find the shortcomings of the essential processes that contribute to the emergence of the problems of the enterprise. Robson and Ullach [1997] suggest a method for ranking processes. They use a five-point scale for evaluating the processes according to the following criteria: strategic importance, vitality, customer expectations and the ability to achieve desired results. The authors of the approach developed in the framework of PROSCI [2005] suggest using taxonomy (classification) of the BP to identify opportunities for reengineering. Mazur and others. [2000]. suggest a methodology for selecting processes for detailed analysis. Separate aspects of the basic principles and methods for implementing the process approach were studied in the scientific works of Davenport T. [1993], Repin V.V [2004], Karaulov N.N. [2009], Remenik S.Y. [2009], Shelmin E.V. [2007] and others. Creation of entrepreneurial universities and organizational directions of transformation ClarkB.P [2011]. According to the author of the idea of the "Triple Helix" Henry Etskowitz [1998], in the close connection "state business university" the role of universities is prevalent, how can only universities create an innovative development model in which the university itself will perform a "quasi-governmental role as a regional or local innovation organization ". Studies of the processes of transformation of the education system and the influence of universities on this process were carried out by the authors Galazhinsky E.V. [2014], Gauss O. [2016], Grudzinsky A.O. [2012], Zaitsev A.V. [2012], Shattok M. [2006], Sheremetev E.N. [2015] and others.

The generalizationof these studies allows us to draw three main conclusions:

- the list of criteria used is limited;
- the majority of criteria (significance, impact on the client and on business) is of an abstract nature, that is, the authors do not show how the criteria are related to specific indicators characterizing the processes or situation;
- the used selection rules are reduced to two: a weighted sum that is applied only to quantitative indicators and positioning in two-dimensional space (in the form of a graph or matrix), which limits the number of criteria used (no more two).

Therefore, when developing an approach to determining priorities in managing business processes, two main aspects need to be considered: first, the evaluation of business processes can be carried out according to many criteria and, secondly, it is required to choose the appropriate multi-criteria method of decision-making.

3. PROCESS APPROACH TO MANAGEMENT

In any university, a large number of business processes simultaneously operate, differing both in their purpose and in their basic characteristics. The process approach to management ignores the organizational structure of the organization's management, with its inherent assignment of functions to individual units. In the process approach, the organization is perceived by managers and employees as an activity consisting of business processes aimed at obtaining the final result. The organization is perceived as a network of business processes, which is a set of interrelated and interacting business processes, including all functions performed in the organizational units. Process-oriented management allows qualitatively to change the activity of the organization at the operational, interfunctional and interorganizational levels. The definition of business processes as an economic category [Harrington D. and Esseling K.S. 2003], [Andersen B. 2003], [Zinder E.Z. 1996]. [Davenport T. and J. Short. 1990]. "... the desired result is achieved more effectively when the activity and the relevant resources are managed as a process" Sheremet A.D [2009, p. 173]. "Business processes are a collection of different activities within which one or more types of resources are used at the entrance, and as a result of this activity, a product is created at the output that is of value to the consumer." Hammer and Champi [1997]. In the standard "ISO 9000 Quality Management" [2007 process is defined as "a set of interrelated or interacting activities that convert inputs to outputs". A business process in a university is understood to mean a specifically ordered set of business functions in time and space, aimed at creating the desired result and achieving the main goal of the university by converting inputs into outputs that have value for the consumer. We define the business process as a system of consistent, targeted and regulated activities in which, through the management impact and through resources, the inputs of the process are transformed into outputs-process results that are valuable to consumers. Some authors [Svitkin, M.Z.2000], not disclosing management processes and servicing, to the main processes include educational activities, research and consulting activities, development and production of educational materials (for external use), educational activities. Bedenko N.N. [2011] carrying out the classification of business processes of the university, refers to the main processes - educational, educational, scientific processes and the process of additional education; to managerial processes - marketing, planning, management of resources, quality management; to auxiliary processes - financial, personnel, information, material and technical, methodical, economic processes and the process of legal provision. The main business processes should be attributed educational and scientific-research activities [Glushchenko AV, Egorov EM. 2011]. They directly add value (cost) of services to the consumer. In essence, these are the processes leading to the provision of educational or research services, starting with the

analysis of existing requirements of stakeholders, or stakeholders, which include: consumers and end users (students, parents, employers); employees of the university; investors; founders; suppliers and partners; society as various associations and state structures, etc.), and ending with the provision of services, in other words, producing the main "outputs" for the university.

4. METHODOLOGY

In the hierarchy of the process approach, nesting of various levels of processes in the management scheme is observed:business processes → business functions → business operations. The business process is described not by a single goal achievement index, but by a group within the relevant business functions of the business process. To calculate the index of the degree of achievement of the goal, the integrated assessment method was used. The essence of the method consists in the aggregation (convolution) of the indexes of the achievement of each business function in a single assessment that visually characterizes the work of the business process [Kolos, E.A 2011]. The integral index of the aggregate of various indices takes into account the degree of influence of individual indices of business functions on the final evaluation of the effectiveness of the business process. As a tool for prioritizing the weighting coefficient of each integral index of the business function (w), the hierarchical analysis method developed by Saati T. and Kerns K [1989] in the 1970s was chosen for the purposes of the study. The method of analysis of hierarchies is a method in the theory of decision making which is quite effective for solving multicriteria problems with hierarchical structures. The method consists in decomposition of the problem into increasingly simpler components and further sequence of judgments of the person who makes the decision on pair comparisons. These judgments are then expressed by the method of matrix algebra and expert evaluation of finite estimates (SilkinG.Y. 2012]. The hierarchy analysis method includes procedures for synthesizing multiple judgments, obtaining priority criteria and finding alternative solutions. Solving the problem using the hierarchy analysis method is a process of step-by-step prioritization. It includes the following components:

1. Identification and identification of the problem;
2. Decomposition of the problem into a hierarchy of tasks;
3. Construction of matrices of paired criteria comparisons;
4. Calculation of priorities;
5. Synthesis of priorities [Saati T.,1993].

The implementation of these stages within the framework of the hierarchy analysis method allows obtaining objective quantitative estimates of the weight of all elements in the structure of the hierarchy associated with the problem posed.

5. RESULTS OF THE ANALYSIS

Based on a set of criteria for evaluating alternatives, we developed a hierarchical model, depicted in the form of a diagram in Fig.1, which clearly reflects the hierarchy of the system of criteria that characterize the importance of the business functions of the educational business process. With its help, it is possible to comprehensively assess the extent to which the business functions fulfill the tasks facing the structures providing the educational service.

Figure following on the next page

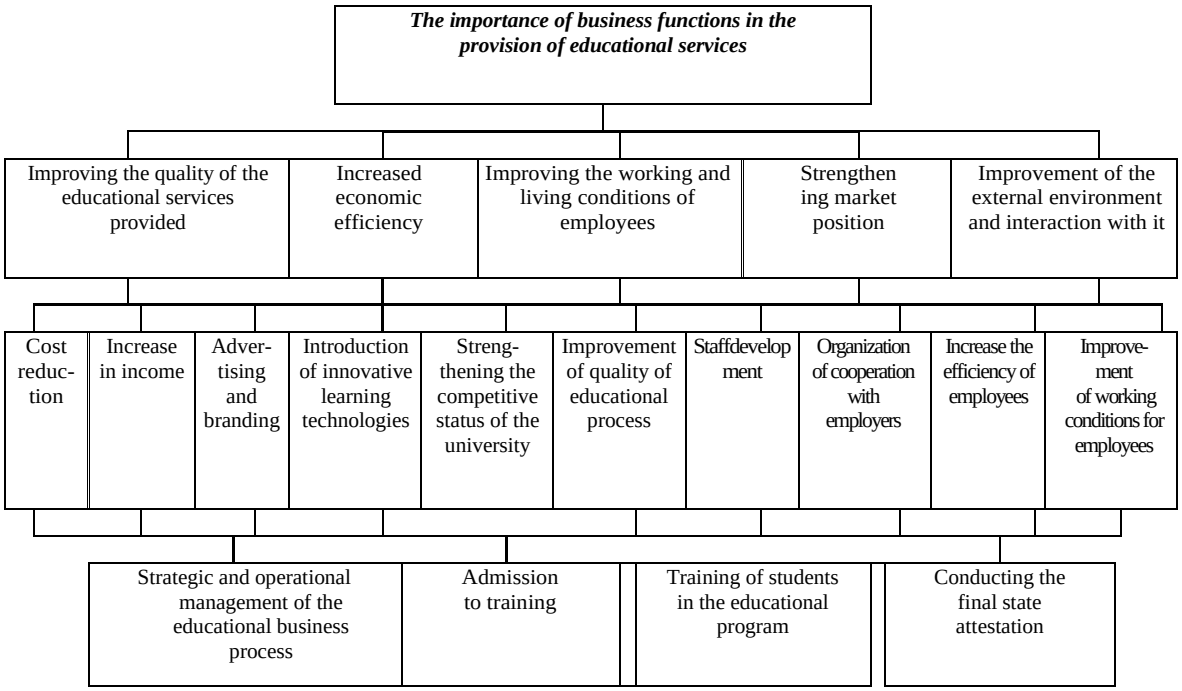


Figure 1: Scheme of the hierarchical model of the importance of the business functions of the educational business process

In this model, two hierarchical levels of the importance of the criteria in relation to the global criterion are singled out and the links between them are indicated: the links of the alternatives with the second-level criteria, the links of the second-level criteria to the first-level criteria. The latter are locked into a global criterion. As alternatives, the business functions of the educational business process identified in Fig. 2, which will be evaluated expertly by the degree of influence on these factors: strategic and operational management of the educational business process; admission to training; training of students in the educational program; conducting final state attestation. At the same time, business functions that exert the greatest influence on the over-listed criteria are, in our opinion, the most important for ensuring the effectiveness of the educational business process of the university.According to existing recommendations, the group of experts should not exceed 20 people [Evlanov L.G.1978]. In the expert survey, four doctors of science, four candidates of sciences and two specialists with a great experience of work took part. The selection of experts was carried out on the basis of: competence, lack of personal interest due to experty, creativity (breadth of knowledge), conformism (absence of subordination to concrete influence). After selecting experts, they were asked to fill out a questionnaire that contained a text part explaining the examination rules, square matrices of pairwise comparisons in accordance with the presented hierarchical model of the importance of the business functions of the educational business process. To process the expert data, the method of averaging the values of expert estimates for each of the pairs of compared criteria was used, that is, there was a geometric mean for a set of peer evaluations referring to the same pair of criteria. The results of the expert data on the criteria for the matrix of pairwise comparisons of the first level criteria with respect to the global criterion are presented in Table 1 and Table 2.

Table following on the next page

Table 1: Determination of the most important task in the delivery of educational services

Factors	Improvement of the quality of the educational services provided and scientific research activities	Increased economic efficiency	Improve-ment of working conditions for employees ' lives	Strengthe ning market position	Impro-vement of the external environ-ment and interaction with it	Normali-zed estima-tes of the priority vector	Rank
Improvement of the quality of the educational services provided and scientific research activities	1	8	7	5	6	0,598	1
Increased economic efficiency	1/8	1	1/2	1/3	1/2	0,054	5
Improvement of working conditions for employees' lives	1/7	2	1	1/2	1	0,092	4
Strengthening market position	1/5	3	2	1	2	0,161	2
Improvement of the external environment and interaction with it	1/6	2	1	0,5	1	0,095	3
Total	1,634	16,000	11,500	7,333	10,500	-	-

$$\lambda_{max} = 5{,}079$$

Consistency ratio:CR = 0,0175

Consistency index: CI = 0,0196

Table 2: Importance of the business functions of the educational business process

Business function	Assessing the importance of a business function	Rank
Strategic and operational management of the educational business process	0,295	1
Admission to training	0,230	3
Training of students in the educational program	0,287	2
Conducting the final state attestation	0,188	4

6. DISCUSSION AND CONCLUSION

Based on the results of the calculation of the final priority vector, it can be concluded that the most important from the point of view of the criteria considered are the business functions of strategic and operational management of the educational business process (29.5%) and training of students in educational program (28.7%). Proceeding from this, one can conclude: first of all, it is necessary to optimize such business functions that can significantly affect the effectiveness of the educational business process. The method of analyzing hierarchies is a sufficiently qualitative procedure for finding the weight coefficients of business processes that are used to calculate the integral measure of the effectiveness of the management system. Ranking of business processes in this way allows you to get the most objective and reliable value of the integral indicator of the effectiveness of the management system, which contributes to the adoption of rational management

decisions. The application of the apparatus of the method of analyzing hierarchies allows you to take into account all possible internal and external factors, to determine the directions of innovative policy and to present the process of structuring in the form of an integral hierarchy. At the same time, process management provides an opportunity to purposefully improve individual business processes, business functions, business operations on the basis of coordinated efforts of all participants in the management cycle. Based on the research, we came to the conclusion that the management of changes in universities should be sustainable and extend to all departments, involving them in the decision-making and accountability processes. At the modern university in Azerbaijan, several areas for improving the process of change management can be identified:

- formation of the non-linear (matrix) management system of the university;
- involvement of employees in decision-making processes and their immersion in the strategic goals of the university through continuous updating of knowledge and advanced training;
- the motivation of units that are willing to change, and the promotion of risk and entrepreneurship;
- the formation of appropriate values and entrepreneurial culture in the units.

Thus, the conducted research will allow to take a fresh look at the activities of the university in the modern reality, and the systematization of the observed changes in the business processes of universities and identification of areas requiring the development of measures to create conditions for activization of activities will allow developing a set of interrelated measures for transforming the university into an entrepreneurial type.

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ESTIMATION OF INNOVATION ACTIVITY OF THE REGIONS OF THE AZERBAIJAN REPUBLIC

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ABSTRACT

The aim of article is estimation of innovation activity by considering the role of innovations in the regional economic development. The author took 10 economical regions as an investigation object that classified for the economical features of Azerbaijan. In the article conducted a research on the topic of international practice, taking into account regional features of the estimation of innovation activity. On the basis of regional understanding criteria and European Commission Regional Innovation List indicators, and indicators that differentiate innovation leaders were compiled, according to the Economic Cooperation and Development Organization methodology the innovation territory patterns on the European countries and efficiency indicators on the patterns, the fields that belong innovation policy were investigated. In the article factors that relevant to Azerbaijan were chosen as the result of investigation factors of innovation activity. Regional innovation activity was estimated by considering international criteria on the estimation innovation index. The results can be used for the estimation of Azerbaijan Republic innovation index and for the basis of innovation criteria of regional economic development.

Keywords: *innovation activity, region, Oslo government, scientific area*

1. INTRODUCTION

Azerbaijan Republic economy innovation transition - competition ability, economical increase, increasing living standards, providing to implement other national superiorities is the efficient use of the results main conditional scientific-research and procedures. In this condition, potential development innovations are more important to applying the efficient innovations to economic and social fields and the sum of technical, manufacturer, organizational, marketing, financial operations.

1.1. The Main Understandings

Regional innovation activity is the result of the region's innovation action. Innovation activity includes:

- To implementing long-lasting scientific-technical programs;
- To finance fundamental researches for quality changes in the productive forces with the aim of to develop economic structure;
- To applying, spreading, releasing principally new techniques and technology and preparing economical types.

The innovation activity is the sum of all scientific, technological, organizational, financial and commercial steps that lead to realization of innovations. The regional innovation system defines the criterions of region understanding as follows:

- Region must not be a determined area.
- It is general in the special criterions conditions.
- It may differentiate from external areas with the special type of related union characteristics;
- It has some types of internal unions;

These regions are used with the industry clusters conception from economic point of view. Clusters are characterized with the tight network of the economic subjects. These include processing facilities, financial institutions, research institutions and technology transfer agencies, economy unions and unions, regional governments and even information unions as producer and marketing companies. Nowadays innovations surround all activities of the technological changing process in contrast to the former approaches. Regional innovation and cluster making policy was realized for developing competition ability of the country. At this moment, it is important to make regional innovation environment. Regional innovation environment formed in the basis of *actives, networks and cultural environment*. Making of regional innovation environment concludes with the Innovation-Productivity-Prosperity chain. As actives, the human, intellectual, finance, physical and institutional capital in the region is being considered:

- Human capital
  Talented people manage the innovations with the generalizing new ideas. The talented labor marketing is one of the main issues there, while many companies are settling in the region. Innovative companies tend to the specialized labor in their industrial field. Regional perspective must be estimate with the ratio factors of the possible work force, specialization and educational institution activity in the point of human capital.
- R&D institutions
  These institutions are addition to the knowledge base and important in the economic development with the long-term. Either universities or firms and investments by governments increase the amount of innovational product and services.
- Financial capital
  The realization of innovative ideas requires a considerable quantity of financial resources. In many cases, institutions which getting successful results easily financed with the venture capital.
- Industry base
  Regional industry base is important. If there is no industrial base, making new industry areas will be difficult and usually it is excel to expand area.
- Physical infrastructure
  Here includes transport and telecommunication infrastructure.
- The law and regulatory environment
  Especially, here are important taxes and other regulatory methods.
- Life Quality
  It is subjective measurement. It measures with the life costs, communication term and crime ratio in the standardized size.

With the aim of supporting regional innovation, actives are being associated. The most effective network is making contact among the business, education and non-state subjects. At the same time, city sport competitions or university students associations and other non-formal contacts like this performed in the region as the information networks have important mediation functions in the knowledge transfer.

Culture is considered as the business culture of the region. The important thing in the business culture is the wiliness of sharing business leaders' cooperation, information and views.

2. INTERNATIONAL EXPERIENCE

According to the European Union Statistical institution Eurostat's regional innovation indicators the completive factors that determine economic development of the region consist from the regional population as potential work force, regional infrastructure as provided aggregate material, city agglomeration tendencies in the region as the geographical reflection of the economic activities concentrations, economical structure of the region and the possibility of the regional "gamers". The main involved indicators in the regional innovation process are the innovation general costs and output indicators significantly developed in the region over the years or they are new product of the sale proportions. Regional innovation activity characterized by two groups in the point of simplicity and agility of the indicators collection. The activity indicators that getting easily called first indicators. The indicators that have no initial priorities, indicators on the R&D centers, indicators on the mutual regional influence, bibliometric indicators, and infrastructural indicators. Development of innovation requires to making necessary base and preparing innovation strategy in the country. Appropriate innovation fields' policy generalized as follows (OECD methodology):

1. Making knowledge consist of current and future sources firms and state actives for the long-lasting development. Scientifically based capital and its related employment, scientific abilities and education are indicators that make innovation knowledge to investigation in the center of attention.
2. Join to Knowledge helps to inform political discussions with the organizing measures on the nature and variety of mechanisms for the exchanging knowledge. The effect of the scientific-cooperation (based on patent references) and scientific-industry association (patent documents to the non-patent documents) are in the submitted indicators. New indicator added in 2013 was investigator's mobility that at this time the carrier of the scientists who have publications in academic magazines and innovation process is followed.
3. Targeting new development areas analyze technologies on the country's comparative advantage and the direction of the country's scientific tries. On this factor R&D and innovation indicators, ecology, information and communication technologies are submitted on the biotechnology and nanotechnology and expanses are examined in the smart ICT infrastructure.
4. Free innovation concerned with the business sections dynamism. The main methods are considered as the new indicator that offered on the intellectual property package in the protecting innovations connected with inventions of firms in the analyzing of the factor, firm's patents, commodity niches and industry patterns use.
5. Competition factor in the economic knowledge mainly gives attention to the wide scale of use of developed indicators that possible for use, and how countries can increase their competition force.
6. Participating in global economy attracts impacts of structural indication to the countries that participate in the global value chain. The indicators are associations between firm size, life cycle and development as well as employment patterns that accompanied in the industry related abroad, treatment and services.

Estimating the regional innovation indicators over the European countries based on countries general estimation and countries were compared considering the most common indicators. However, mainly indicators system is applied for the estimation of innovation index, while interior innovation activity is being estimated.

3. COMPARATIVE ANALYZING SCIENTIFIC - TECHNOLOGICAL DEVELOPMENT OF ECONOMICAL TERRITORIES

European experiment approve one more time that, the investigations must be adjusted to the international standards and requires. Exactly, the statistics of the investigations and operations must be as indicators system that showed in the Oslo and Fraskat government. However, in these governments, indicators system that considered activities of the scientific organizations and estimation methods do not let CIS member countries comparative analyzing. Standards accepted in CIS member countries are not in power. Works must be done to accelerate activities in the appropriate field as follows:

- Making of legal base must be strengthened
- Using with international estimation tools monitoring must be held
- Definite targets must put for attract scientific-research organizations to the innovation processes
- Innovation activities stimulation tools must be improved
- Event program must be compiled to accelerate innovation activities
- National centers must be made on the preaching, applying and commercialization researches.

CIS Economic Council prepared documents and programs relating CIS countries' integration to the innovation processes happened in the world and realize them. We show these for example: "The regulation about operator of the interstate purposeful program on the CIS member countries cooperation in the innovation field until 2020", "Establishing CIS patent and innovations bank conception", "Resolution about progress of the CIS member countries' program and projects scientific-information assurance conception in the innovation field" etc. The Azerbaijan is not participating in this program. However, our Republic realizes free events and programs to integrate innovative processes happened in the world. The agreements signed with Belarusian, Ukrainian, Hungarian state innovation, transfer agency and centers at the state level. Processes of the innovation activity field, happened in the world kept in the spotlight, in many cases, the participation is realized in the processes appropriate to state policy. The research is done on the applying comparative methodology of the innovation development implemented at the national level in the Azerbaijan, European Union countries. The support organizations are much more between CIS countries. Researches and international activities of Scientific-Production Enterprise prove that innovation infrastructure is much more in the Russian and Belorussia. Byelorussians widely use from Russian experience in this field. The innovation activity is paid very big attention in Russia. This attention is shown especially in the level of economic zone: implementing innovation development programs in the regions, organizing cooperation between different economic zones in the researches and operations filed and implementing innovations projects, investigating in the basis of European Union innovation benchmarking methodology field etc. For example to such works: Russian Technology Transfer network (RSTTS, www.brin_net.ru), national information-analytic center on the Scientific-technological activity innovation infrastructure and regional innovation systems monitoring (www.miiris.ru), "Education and Innovations in Russian regions" information-analytic portal (www.regions.extech.ru), "Innovation and Entrepreneurship" (www.innovbusiness.ru); economic zones' innovation index, potential innovation and formation innovation development indicator system fields. Usually, adopted potential innovation estimation methodology based on the legislation of that country. Therefore, unexplained significant differences establish when the standard estimation methodology applied in the European Union countries. While the international standards are being prepared, it is impossible to consider all countries' specific features, generalized indicators system is accepted in the international approach, the countries' political aims are not considered.

Recent days, requests have increased to the scientific policy and strategy-technology planning. This concludes with the improving of decision-making process information provision in the level of national and economic zone. As we noted that, governments and indicators system is not reflect various states' national innovation systems features that made by UNESCO Statistic Institution located in Montreal. Reports prepared in the Electron Information System borders on the Norway are examples for this. Accepted indicator system and innovation policy analysis methods must not be applied to the country[10]. Therefore, in every country investigations are done on the making of innovation development indicators system relevant to it. Information provision possibilities on the gathering and processing of the information in the making of indicators system, directing to the solution of issues on the country development considered as main criterion. In this field, investigations do not give range in Azerbaijan. Taking into consideration that, socio-economic condition of Azerbaijan's economic areas is different, every economic region has its own specific features and sharing of potential innovation is non-proportional. Innovation oriented development of Azerbaijan economy reflected about 30 high legislation documents accepted by government. Various scientists on the estimation of some ingredients did investigations. For example: [5; 3; 4; 6] works of Z.M Najafov, F.A Gasimov, T.M Aliyev, S.Abbasova, A.Muradov etc. However, these scientists approached to this issue individually and they did not research complex indicators system and its information provision. Investigations of Russian Sciences Development Issues' Academy of Sciences, Science Investigation and Statistic Center, Belorussian Scientific-Technological Field System Investigation and Information Provision Institution (Belize), Kazakhstan Scientific-Technology Information Center considered basic. Considering the Russian experiment in this field, in the estimation and investigation of scientific-technological field in Azerbaijan "Russian regional scientific-technology complexes: the estimation of investigation scheme and methodology considered as a key in the estimation of indicators and comparative investigation methods" [**Error! Reference source not found.**]. Azerbaijani national and specific features, statistic indicators in this field, collected and processed information, considering potential innovation of economic regions and areas it clarified, indicator system changed and estimated for Azerbaijan. Based on the methodology applied, the overall structure of indicators for evaluation and comparative analysis of the changed scientific and technological and innovation activities in Azerbaijan is given[**Error! Reference source not found.**]. All the data required for the calculation of the index of innovation have not yet been reflected in the statistical indicators of Azerbaijan. Since the data from different sources were not used to calculate the index of innovation, the data from the Azerbaijan Statistical Committee's book were selected and the calculations were made based on them.

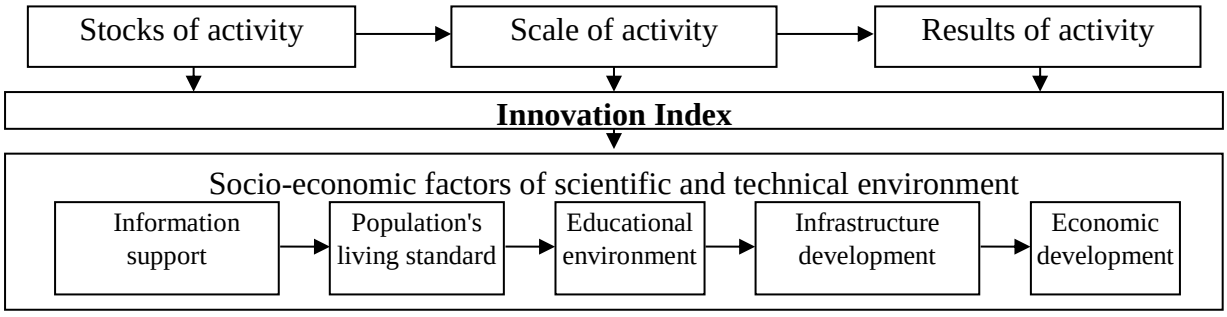


Figure 1: Innovative performance indicator system

The innovation index is calculated based on the indicators characterizing the organization's innovation activity. Indicators of socio-economic environment are considered as external factors. External factors have a direct impact on the formation of the index of innovation.

4. EVALUATION OF THE ECONOMIC ZONE OF THE INNOVATION INDEX

Creating a database that is consistent with the structure of the selected indicators. As an experimental base, we take eight zones from the ten economic zones of Azerbaijan (*Figure 2*). Because there are no scientific potential in the two zones (Upper Karabakh and Kalbajar-Lachin zones are under occupation).



Figure 2: Economic zones of Azerbaijan

The list of economic zones is based on the list of Azerbaijan State Statistical Committee. Based on the methodology, additional 6 initial data were used to calculate the specific indicators of innovation development and the overall index. The calculations were carried out using the SPSS 17.0 package. As we have shown, some of the indicators characterizing the activity of the economic zone are not placed in the official statistical data of the Azerbaijan State Statistical Committee (not elaborated). Therefore, we have to reduce the indicator system slightly. The normalization of the indicators is done by linear scaling method. After completing the methodology, we get Table 1. As a result, economic zones are ranked according to innovation development. As we carry out calculations on economic zones, their number is limited and there is no need to divide them into clusters.

Table 1: Innovation index according to economic zones for innovation development

Indicators	I1	I2	I
Sheki-Zagatala	*0,037363*	*0,145204*	*0,091283*
Guba-Khachmaz	*0,087007*	*0,17371*	*0,130358*
Ganja-Gazakh	*0,109372*	*0,225259*	*0,167315*
Absheron	*0,117459*	*0,234816*	*0,176137*
Aran	*0,120869*	*0,104973*	*0,112921*
Lankaran	*0,143004*	*0,129577*	*0,13629*
Nakhchivan	*0,248108*	*0,228631*	*0,23837*
Upper-Karabakh	*0,312987*	*0,048597*	*0,180792*
Baku	*0,355347*	*0,40469*	*0,380019*

Calculations made to normal data allow for the initial sharing of economic zones on the selected indicators system. As can be seen from Figure 3, the Baku city differs sharply from the content of the index of innovation, then it is possible to separate the Nakhchivan, Guba, Absheron, Ganja-Gazakh, Nagorno-Shirvan, Aran economic zones, Kelbajar-Lachin, Lankaran and Upper-Karabakh economic zones . Upper-Karabakh and Kalbajar-Lachin are under occupation today and can't be analyzed. Thus, the economic zones are divided into three groups.

Figure following on the next page

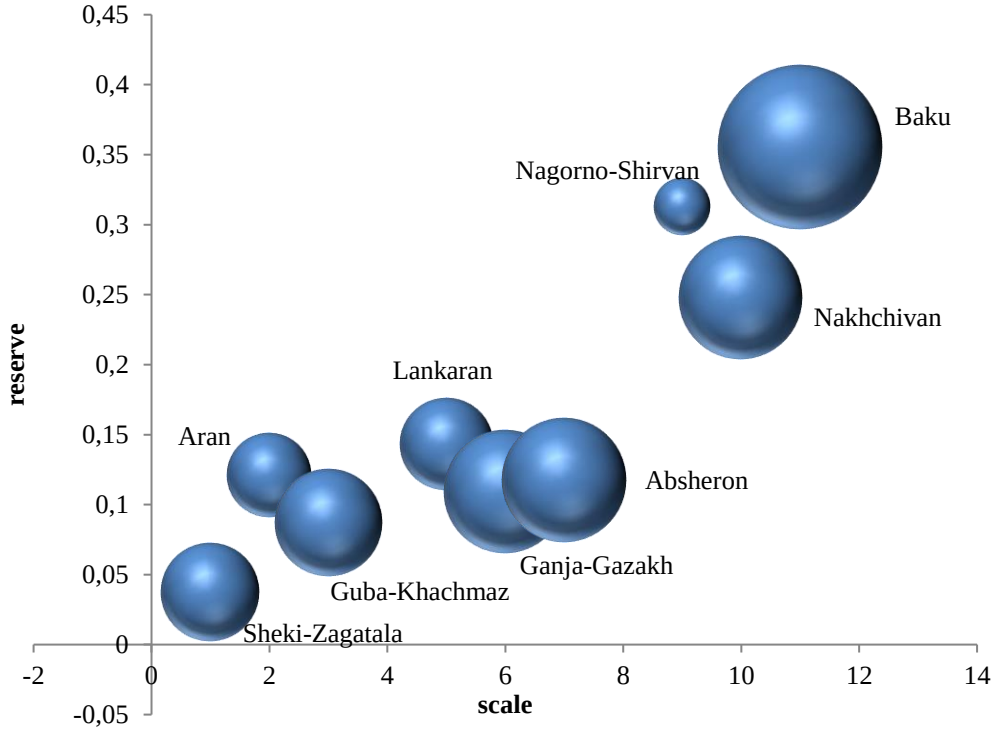


Figure 3: Distribution of economic zones by integral part of innovation index

The cluster analysis of SPSS-17 once again reaffirmed what we have said above. Let's look at the ranking of economic zones according to the division.

Table 2: Grouping of economic zones according to innovation development level

Economic Zone	**Special indexes**					**Innovation index**
	Reserves			**Scale**		
	Cadre	Material-technical base	Special index	Science	Special index	
Cluster 1						
Baku city	*0,475369*	*0,235326*	*0,355347*	*0,809379*	*0,809379*	*0,582363*
Cluster 2						
Nakhchivan	*0,26705*	*0,229167*	*0,248108*	*0,457262*	*0,457262*	*0,352685*
Absheron	*0,105454*	*0,129464*	*0,117459*	*0,469632*	*0,469632*	*0,293545*
Ganja-Gazakh	*0,187493*	*0,03125*	*0,109372*	*0,450519*	*0,450519*	*0,279945*
Guba-Khachmaz	*0,06464*	*0,109375*	*0,087007*	*0,347419*	*0,347419*	*0,217213*
Average price	*0,156159*	*0,124814*	*0,140487*	*0,431208*	*0,431208*	*0,285847*
Cluster 3						
Nagorno Shirvan	*0,125974*	*0,5*	*0,312987*	*0,097194*	*0,097194*	*0,205091*
Lankaran	*0,254758*	*0,03125*	*0,143004*	*0,259154*	*0,259154*	*0,201079*
Aran	*0,210488*	*0,03125*	*0,120869*	*0,209946*	*0,209946*	*0,165408*
Sheki-Zagatala	*0,043475*	*0,03125*	*0,037363*	*0,290408*	*0,290408*	*0,163885*
Average price	*0,158674*	*0,148438*	*0,153556*	*0,214176*	*0,214176*	*0,183866*

In the table economic zones are the index and index of innovation indexed for groups and subgroups on clusters, average values for each cluster are given. As you can see, Baku is ahead, because the main scientific potential is accumulated in this city.
The importance of economic zones in the cluster occupies a special place in Azerbaijan. In addition to scientific potential in these zones, techno parks and free economic zones are created in Absheron, and special attention is paid to innovation development in every field and management in the Nakhchivan Autonomous Republic. The other two zones: Ganja-Gazakh and Guba-Khachmaz, as well as economic zones in the cluster 3, have the inverse proportion on the prices of special indicators. In other words, the material technical base of the zones with high staffing value is low. The added external factors allow the analysis of the innovation development level of the economic zones. Let's analyze the impact of the socio-economic environment on innovation development.

5. ANALYSIS OF THE IMPACT OF THE SOCIO-ECONOMIC ENVIRONMENT ON THE SCIENTIFIC-TECHNICAL COMPLEX OF ECONOMIC ZONES

At this step the selection of the indicators goes through two stages. In the first stage, the statistics are excluded from the initial data, and then on the basis of the correlation matrix, indicators are discarded does not meet the economic content of the relationship interchangeable dependency ratio. Other non-select indicators are then used to calculate the relevant indexes for the groups of factors. The prices of all calculated indicators are given in Table 3. Here, the economic zones have risen in the increasing order.

Table 3: Factor Index

№	Economic Zone	Index			
		Innovation	***Education***	***Level of life***	***Infrastructure***
9	***Guba-Khachmaz***	*0,1353314*	*0,01552*	*0,150648*	*0,23982595*
8	***Sheki-Zagatala***	*0,1552562*	*0,032513*	*0,165321*	*0,26793471*
7	***Lankaran***	*0,1619498*	*0,04267*	*0,176193*	*0,26698667*
6	***Nagorno Şirvan***	*0,1659169*	*0,030055*	*0,134221*	*0,33347475*
5	***Aran***	*0,1839129*	*0,025665*	*0,166893*	*0,35918047*
4	***Ganja-Gazakh***	*0,2595628*	*0,191951*	*0,253392*	*0,33334487*
3	***Nakhchivan***	*0,2817092*	*0,237058*	*0,198661*	*0,40940835*
2	***Absheron***	*0,4974446*	*0,283127*	*0,209206*	*1*
1	***Baku city***	*0,9176619*	*1*	*1*	*0,7529858*

The average value of Baku's factor index is sharply different from the other zones. The remaining clusters also differ from each other by factor values. At the next stage, regression models, which show dependence on the indicators included in the various factor groups of innovation activity, are established. As a result, the equation was established on all blocks. As you know, regression analysis determines dependence between dependent and non-dependent variables. SPSS software has been used to set regression equations. Here, the result variable is given by the factor change. At the exit:

1. Correlation matrix;
2. Regression equality ratios;
3. R quadratic equality ratios;
4. Prices that determine the importance of the model.

The received regression equations and statistics are given in Table 4.

Table 4: Linear regression equations for the group of factors

Group of factors	***Linear regression equation***	***Determination coefficient***	***Darbin-Wotson coefficient***
Education level	$İ=0,15+0,80I_{edu}$	$R^2=0,93$	1,575
Population's well-being	$İ=0,11+0,82I_{well\text{-}being}$	$R^2=0,76$	0,831
Infrastructure development level	$İ=0,03+0,60I_{inf}$	$R^2=0,56$	1,530

It should be noted that, the determinant coefficient depends entirely on the index of the index of innovation, and the Darbin-Wotson ratio is smaller than 2, which means that autocorrelation for equity indicators are adequate. The determinability ratios of the innovation coefficient education level, the level of well-being of the population, and the level of infrastructure development depend on the indicators included in the innovation index model: the highest levels of education (93%), at least the level of development of the infrastructure (56%).

6. RESULT

Territorial distribution of scientific and technological potential in the formation of the MIS in the country and management of innovation development are important issues. The formation of the MIS in Azerbaijan envisages the establishment and development of the regional modules of the system. Regions play a decisive role in the formation of innovation infrastructure, the formation of knowledge and the establishment of a system of interaction with enterprises, and the utilization of scientific and technical achievements. MIS content consists of subsystems. We can divide these subsystems into 2 parts: manager and managed. Scientific-technological complex managed subsystem, scientific and technological policy is the subsystem that manages. These subsystems have a complex structure. Regional scientific and technological policy - the ruling subsystem - is under the influence of three equal forces: regional policy, scientific and innovation policy, regional socio-economic policy. The combination of these three elements leads to the establishment of a regional scientific and technological complex. This, from the other side, ensures economic growth in the region and, another side, the country's innovation development. Science-technology area should be improved in Azerbaijan today. The development of scientific and technical potential and innovation in the economic zones during the development of the national innovation system in the country is one of the main issues. Formation of the national innovation system requires the development of economic zones. As a result of the research, two methods were adapted and calculations to Azerbaijan: evaluating the development of scientific-technical complex and methods of analysis of the development of scientific and technological complex. Both methods are based on the system of indicators characterizing the internal and external environments and factors of the scientific-technological complex. The proposed methodologies are widely used in the international arena. The author has studied the work carried out on the basis of inter-country and interregional comparison in the international arena, based on those models; the system of characteristic indicators for Azerbaijan was selected and calculated. The innovation index has been formulated based on the internationally accepted principles for the evaluation of scientific and technological development. A comparative assessment of the scientific and technological potential of Azerbaijan has been found in the index of innovation for each economic zone, which has been classified and clustered for zoning. The selected indicator system allows evaluating the level of innovation development of different areas and analyzing the factors affecting the innovation index in the economic zones. We divided the economic zones into clusters and analyzed the

factors. Method of measuring innovation potential was prepared with the method of fuzzy clusters based on factors.

Innovative activity of economic zones was measured on the basis of the selected indicators system allowing the country to share the scientific and technological potential of the country and to analyze the cluster.

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STATISTICAL ASPECTS OF TRADE RELATIONS BETWEEN AZERBAIJAN AND GEORGIA

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ABSTRACT

Georgia's strategic partner is very important for Georgia to continue close cooperation with the Republic of Azerbaijan in politics, both export and import economics, energy, transportation and cultural spheres. The main trading trends between Georgia and Azerbaijanis revealed in the article. The methods of statistical observation, grouping and analysis were used in the research process. According to both export and import, ten countries are included. It is noteworthy that the commodity structure of export and import has not changed in dynamics. According to the data of 2017, Georgia is in the second place by Azerbaijan, followed by Russian Federation and its index is 9,9%, which is 4,6 percent behind Russia; The volume of export to Azerbaijan in 2007-2013 increased by 13% compared to the previous year and by 417% in 2007; Export goods are very profitable. Among them: alcoholic drinks, potatoes, non-alcoholic beverages, exports of non-alcoholic drinks, curry fruits, cigarettes, ferro alloysetc. As for Azerbaijan, it is in the fourth place according to import countries. It should be noted that export goods are very profitable. Among them: electricity, oil and oil products , oil gases, ores and concentrates , vegetable oiletc.The article has a great practical significance, since the tendencies of trading economic cooperation expressed here can be used to estimate correct aspects of trade relations between Georgia and Azerbaijan.

Keywords: *export, import,trade, transportation, relation, oil products,economic cooperation*

1. INTRODUCTION

Today, the globalization has become a crucial issue in the everyday political, economic, social and cultural life. From the strategic point of view, it is very important for Georgia to enhance the world trade - economic, financial and other kinds of relations, especially when it is in the foreign interests of the country to share the advanced European values and experiences and join the European Union. In order to form the right economic policy of the country, it is necessary to conduct a theoretical and practical research of integration of Georgia with the world economy, to study the foreign economic contacts quantitatively, to reveal the major developmental trends, to calculate their predictive indices, to estimate the results correctly and to develop appropriate political-economic proposals and preventive measures (N. Abesadze,2016,pp.11). Within the background of the globalization processes taking place in the world economy, one of the principal preconditions for the development of Georgian

economy is the availability of highquality statistical data depicting the integration processes. This, surely, means the perfection of the activity of the National Statistics Office and its maximum harmonization to the international standards. In-depth changes and rapid development of the socio-economic life have made it necessary to see the theoretical issues of statistics in a new light and develop scientifically proven methodological principles compatible with practice (Abesadze, 2015, p 333). Active involvement of the Georgian economy in the process of integration, leads the country to the economic system in order to harmonize national standards with international standards. Globalization is the object of everyday political, economic and social life. The situation was different in the past. Georgia has been actively engaged in trade-economic relations with different countries in different historical periods. After the collapse of the Soviet Empire it inherited a violated economic system with full experience of market relations and similar legislative basis that caused a lot of problems for the country. Provision of sustainable economic development of Georgia is impossible without improving foreign trade balance. To achieve this, it is important to increase the export potential of the country, depending on the supportive measures of export, local staging, the policy pursued by the country etc. Foreign trade will be reflected positively on economic growth when export turns to imports or we have a positive trade balance. Statistics creates a general picture of the position of development of national economy and covering the economic and socio-political processes in the regions, using different statistical methods. Georgia's strategic partner is very important for Georgia to continue close cooperation with the Republic of Azerbaijan in politics, trade, economics, energy, transportation and cultural spheres. Consider the statistical characteristics of trade relations with Azerbaijan. Purpose: The main goal of the work is to reveal the main trading trends between Georgia and Azerbaijan. Research methodology: qualitative and quantitative methods of data analysis applied in the article are widely accepted in economic science (Gelashvili, S., Abesadze, N., Abesadze O., 2015): the methods of statistical observation, grouping and analysis were used in the research process. The graphical expression method is widely used.In addition, the methods of induction, deduction, analysis and synthesis, selective observation were used in the research process. Comparative indicators of the structure, dynamics and comparison were calculated. Accordingly, the aim of our research is to distinguish the major problems of the integration of Georgia into the world economic sphere, to reveal the tendencies characterizing to foreign trade, to calculate the prognosis of the main indices of the foreign trade turnover of Georgia with the purpose of working out the further conclusions and recommendations. (N. Abesadze,2014, pp. 167)

2. FINDINGS

It should be noted that according to the data of 2017, Georgia is in the second place by Azerbaijan, followed by Russia and its index is 9,9%, which is 4,6 percent behind Russia. Turkey occupies third place with 7,9%. The volume of export to Azerbaijan in 2007-2013 increased by 13% compared to the previous year and by 417% in 2007.

Figure following on the next page

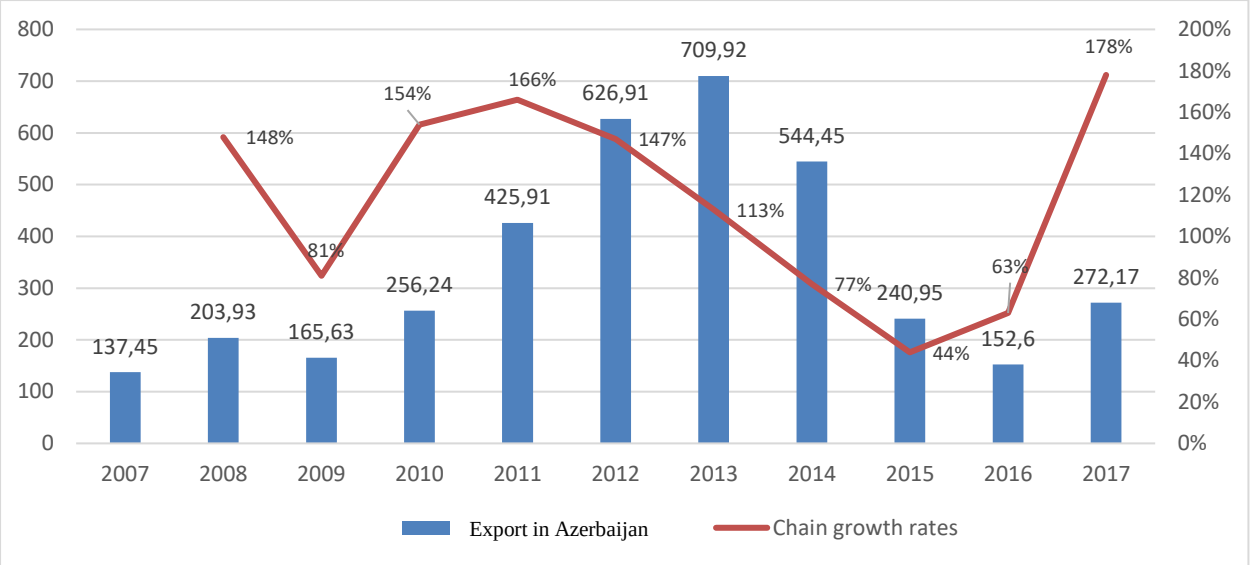


Figure 1: Export performance in Azerbaijan 2007-2017(Million USD)
Source: National Statistics Office of Georgia

After 2013 the export index starts to decline,decline trend after 2016. In 2017, the export flows sharply increased comparing to the previous year. It is enough to point out that in 2017, only Expo Azerbaijan increased by 78% in comparison with the previous year. Average volume of exports amounted to 272.17 mln. US dollars.

2.1. What is the export trademark with Azerbaijan?

It should be noted that export goods are very profitable. Alcoholic drinks - Exports totaled 126.6 mln USD at the end of last year, from CIS countries to 82.6 mln. US dollars. Azerbaijan has a 6% market for spirits, and specifically 9% of the CIS market. Exports of alcohol in Azerbaijan in 2017 were 7.1 mln. USD. Potatoes - Exports in CIS countries amounted to 5.2 million US dollars, from which export flows were mainly made in the following countries: Azerbaijan (97%) - 5.04 mln. US dollar, Russia (2%), Armenia (1%) - 0.05 million. USD. Non-alcoholic beverages - volume of exports amounted to $ 17.9 million in 2017, including 15.7 million in CIS countries US dollars. Exportation of non-alcoholic drinks to Azerbaijan to 6 million at the US Dollar rate. Theexport of live poultry - in 2017, 1.2 million USD, 93% of which were made in Azerbaijan.Curry Fruits - Export Volume 4.4 million US dollar was estimated at 4% - 0.2 mln. US dollars were exported to Azerbaijan.Cigarettes - Export of the product to the last data was 41.8 mln. US dollar, the majority of which is 59%, was transferred to Azerbaijan.Ferro Alloys - the CIS market in 2017 was implemented by 135.5 million. Exports of US Dollar Ferro-Alloys, 4% - 5.42 million US dollar was exported to Azerbaijan.Exports of automobiles are still active, with a volume of 234.9 million US dollars in 2017. The main exporter of this product is Azerbaijan, with the volume of exported products amounting to 88.2 million. US dollar amounted to 38% of total exports and 48% of the CIS market. Exports of trucks in CIS countries were 12.2 million USD. of which 23%were exported to Azerbaijan. The volume of exports of medicines is quite large. In 2017 the export volume of the product is 140.6 million. USD, 22.3 million of which was exported to Azerbaijan, representing 17% of the entire market and 16% of the CIS market.- 6 million in the CIS market. US dollar cyanides and oxyxian exports, 62% of which were made in Azerbaijan. A total of 4.7 million USD cosmetic products were exported in 2017, of which Azerbaijan's share was 10%. Exports of rubber pneumatic salts from Georgia amounted to 5.4 mln. US dollar amounted to Azerbaijan's share of 90%. etc. It is interesting, what is the export share for Georgia and Azerbaijanin GDP? According to the data of 2016, this figure is 46,45%, while export in Georgia is 43,48%.

If we analyze the dynamics, we will see that from 2011 to 2015 the share of export to Azerbaijan was gradually reduced in GDP, but in 2016 it increased by almost 10 percent and in different cases in Georgia. Since 2011, the share of export share in GDP is systematically growing.Compared to the previousyear, it is decreased by 1.3% in 2016.

2.2. What is interesting about the importing commodity structure?

According to the data of 2017, the volume of imports in Georgia is 7939.3 mln. US dollars.As for Azerbaijan, it is in the fourth place according to importing countries. The diagram below shows the dynamics of import data with Azerbaijan, where there is a more or less tendency to be observed. If from 2009 to 2013, import from Azerbaijan increased by 97 million US dollars, an average of USD 54 million has been reduced from 2013 to 2016. In 2017, however, it increased by 16% compared to the previous year.

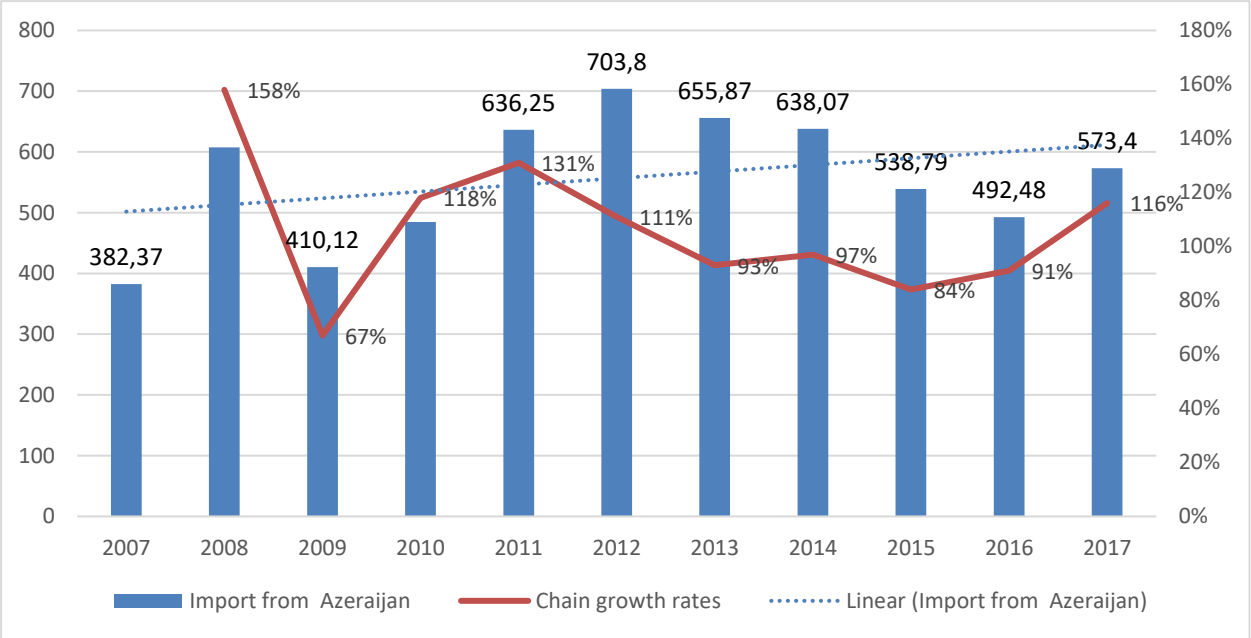


Figure 2: Imports from Azerbaijan to 2007-2017 (Million USD)
Source: National Statistics Office of Georgia

Electricity - main importers of this product are Azerbaijan (71%), Russia (20%) and Armenia (9%). In 2017, 66.7 million. US Dollar imported electricity from which the import markets were presented. In 2017, Georgia imported 696.6 million.USD oil and oil products, including the volume of oil products imported from Azerbaijan by 112.5 million. US dollar. And it is amounted to 16% of the total market and 31% of the CIS market. It should be noted thatthevolume of oil gases, which amounted to $ 350.4 billion in 2017, mainly two countries accounting for 91% of Azerbaijan (318.9 million USD) and Russia with 9%. The volume of ores and concentrates is low, it is important to note that in 2017 the import of this product is 383.3 million US dollar and amounted to 8% of which transfered from Azerbaijan. Its volume is only -19.8 mln. US dollar and amounted to 5% of the total market. The size of import of vegetable oil from Azerbaijan is quite small (6%) in total volume of imports. For statistical analysis it is necessary to consider the foreign trade turnover of the countries of the South Caucasus. The chart below shows the volume of trade turnover of Georgia, Azerbaijan and Armenia for 2007-2017 years. While analyzing the above table, it is clear that foreign trade turnover is characterized by a divergent tendency in the interval of 2007-2017. During this period, it is noteworthy that sharp increase or decrease in concrete years have been revealed. However, 2013 is the maximum foreign trade turnover for both countries in a ten-year interval.

In 2014-2016, foreign trade turnover decreased, which is likely to be caused by the current currency fluctuations in the world, but in 2017 we have an increase in comparison with the previous period.

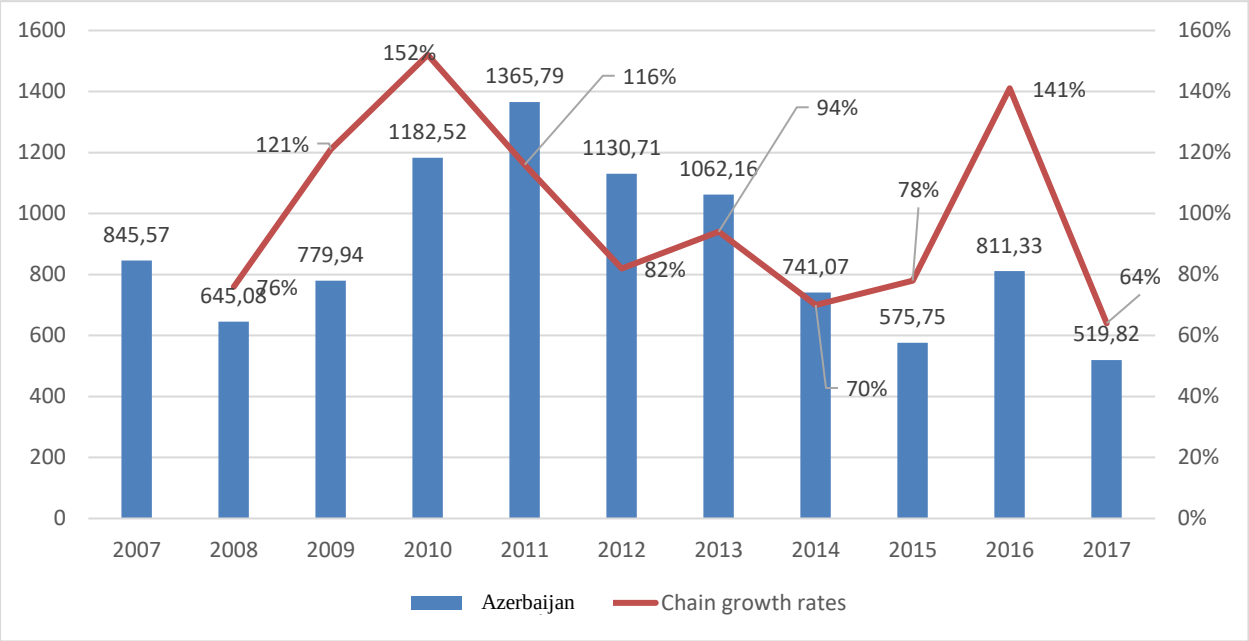


Figure 3: Foreign trade turnover with Azerbaijan2007-2017 ((Million USD)
Source: National Statistics Office of Georgia

Cooperation in the field of energy and transportation between Georgia and Azerbaijan is strategically important. Projects such as "Baku-Supsa" and "Baku-Tbilisi-Ceyhan" oil pipelines, "Baku-Tbilisi-Erzurum" gas pipeline and Azerbaijan-Georgia Interconnector aim to supply Caspian Basin energy resources to Europe market and "Baku-Tbilisi-Kars" Railway project of Azerbaijan and Georgia with the European Railway Network are of great geostrategic importance of the Black Sea and the Caspian region. Due to the above, Georgia is especially important for its strategic partnership in close cooperation with the Republic of Azerbaijan, in politics, trade, economic, energy, transportation and cultural spheres. Further development of good neighborly relations and mutual cooperation between countries is also very important.

3. CONSLUSION

- Georgia's strategic partner is very important for Georgia to continue close cooperation with the Republic of Azerbaijan in politics, trade, economics, energy, transportation and cultural spheres.
- The trade volume of Georgia is increasingly growing with Azerbaijan;
- It should be noted that according to the data of 2017, Georgia is in the second place by Azerbaijan, followed by Russia and its index is 9,9%, which is 4,6 percent behind Russia;
- The volume of export to Azerbaijan in 2007-2013 increased by 13% compared to the previous year and by 417% in 2007;
- Export goods are very profitable. Among them :alcoholic drinks, potatoes, non-alcoholic beverages, exports of non-alcoholic drinks, curry fruits, cigarettes, ferro alloys and etc.
- As for Azerbaijan, it is in the fourth place according to import countries
- It should be noted that export goods are very profitable. Among them:electricity,oil and oil products, oil gases, ores and concentrates , vegetable oil etc.

Practical importance - The article has great practical significance, since the tendencies of trading economic cooperation expressed here can be used to estimate correct aspects of trade relations between Georgia and Azerbaijan.

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THEORETICAL AND PRACTICAL ASPECTS OF THE PARTICIPATION OF CIVIL SERVANTS IN DECISION-MAKING AFFECTING BUSINESS ACTIVITIES

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ABSTRACT
Achievement of the goals of social and economic development and the modernization of the governance process require the establishment of mechanisms for more effective management of relations between business and the state. The article theoretically analyzes the necessity of making changes in decision-making process on regulating entrepreneurship during the reforms in the state governance model. Directions of relationships between civil servants and entrepreneurs, mechanisms of conflict of interests have been clarified. Various approaches to the degree of involvement of entrepreneurs, civil servants and political leaders in decision-making affecting entrepreneurial activity, the stages of sequencing the decision-making process, and the opportunities and freedoms granted to civil servants in the decision-making process has been analyzed. The role of human factor in decision-making process, the requirements of the administrative management apparatus, the existing problems in assessing the implementation of decisions has been explained, the systematic approach and the difficulties encountered in the use of situational analysis methods have been indicated. The complexity of grouping existing attitudes and relationships in various structures of the administrative management system, the effects of decisions and goals of the sub-divisions in public bodies on the decision and purpose of the overall state, and the shortcomings that arise during the execution have been identified. In the research process, attention was paid to the experience of different developed countries, comparative analysis, logical summarization and grouping, synthesis methods have been used. Recommendations on improving effectiveness in public administration were put forward, practical proposals were made regarding the preparation, acceptance, implementation and monitoring of enforcement of decisions within the competence of state bodies belonging to the civil service system.
Keywords: *Civil Servants, Decision-Making, Business Activities, Economic Development, Effective Management*

1. INTRODUCTION

Achieving the goals of socio-economic development and modernization of the economy based on innovation, requires finding more effective mechanisms of management of mutual relations and activities of society, business and the state. The formation of a multi-vector system is based on the consideration of the interests of these three, as well as on the harmonization of attempts to meet them. The state, preparing, working out and implementing its policy, is trying to enlist the support of business structures that can influence the social, economic and political processes taking place in society. And entrepreneurs who want to get certain advantages within their interests are trying to get help and patronage of state structures. Obviously, both sides are aware of their dependence on each other and are trying to turn this dependence to their advantage. Currently, the refusal of excessive positions and duties in the state power, as well as the transfer of management in a number of areas to the private sector, is an example of a reassessment of vertical integration. Because, if economic development makes it necessary to conduct a series of changes in business structures, and if these changes are carried out, the invariability of state administrative power will lead to the formation of inconsistencies in the overall organization,

as well as to the formation of even greater problems in administration. The objectives of the state's economic policy coincide with the objectives of state regulation only if the main goal of the economic policy is to solve only those problems that the market itself cannot solve. The importance of economic policy reflects the essence and technology of public administration. Engaged in studying the role of group interests and characteristics of bureaucratic management in the economic policy of the state, L. Mises, F. Hayek and J. Schumpeter attract public attention to the fact that not adjustable government control can be dangerous. Particularly, J. Schumpeter in his work "Capitalism, Socialism and Democracy" assigns a large place to the role of political institutions. Representatives of neo-institutionalism, although they note that increasing the role of the state in the economy leads to a slowdown in the effective development of the market, they nevertheless accept that the implementation of complex forms of exchange, compliance with the terms of agreements and protection of property rights requires state intervention. But there are also thoughts that the state creates inefficient institutions, and even that particularly interested groups change the "rules of the game" of the market in their favor and get political rent. Having criticized the Keynesians and casting doubt on government intervention in the economy, in the 50-60-ies of the last century the foundations of a new Theory of Public Choice were laid. Supporters of the theory of public choice (D. Black, K. Arrow, E. Downs, J. Buchanan, G. Tullock, M. Olson, D. Muller, R. Tollison, U. Niskanen), having built analogies between the state and the commodity market, analyze the state in terms of the market of a special form (Nureev, 2011, p.2). Since participation in public decision-making and the allocation of public resources often leads to people competing for a place in the management hierarchy, citizens who elect representatives to the highest state administration bodies; deputies who pass laws and officials who enforce and monitor the implementation of these laws are considered as particularly interested persons. At the same time, the political mechanism is considered as a means of reaching a compromise in the clash of interests of various groups (Hardin,1991;1995). Proponents of the theory of public choice, widely using the methods of classical liberalism and marginal analysis, began to explore the impact on the economy of government decision-making processes, which, in turn, are areas of research in political science, sociology and law. Thus, a similar analysis between the individual and the state was conducted by K. Arrow in 1951 and 1963 in his book "Social Choice and Individual Values", and between the market and the state in 1962 by J. Buchanan and G. Tullock in the monograph "Calculation of the Agreement: The logical foundations of constitutional democracy." And the relationship between the citizen and the state they considered from the point of view of the "service for service" approach (quid pro quo) (Hardin, 1995; Nureev, 2005). Continuing research in this direction, in 1985, G. Brennan and J. Buchanan in their work "Principles of Rules" compared market and political ordinal rules. The analysis of political "games without rules" and "games by rules" was carried out by commenting on the contractual basis of society (Buchanan, Brennan, 1985). It was noted that, in consequence, in a democratic society, the economy will deter the incessant growth of the state apparatus, and the work of the public administration apparatus will be monitored by civil society. Today, socio-economic and institutional changes occurring in a number of countries indicate the implementation of this approach. "In general, it seems that all reforms, changes and new developments have still not found their way into the mind of citizens. Public organizations and civil servants' stereotypes still continue even though they were shaped in a world that no longer exists. Until now, many have the perception that civil servants work in an environment that is clearly separated from the private sector. In addition, many see civil servants as bureaucrats who lack flexibility and adhere to rules and processes and who are not inclined to serve the individual or citizens' interests. In addition, another popular stereotype is that civil servants are not performing as they should, but are nevertheless receiving preferential treatment in terms of pay and working conditions in general." (Demmke, 2005, p.5)

2. MUTUAL CONNECTION OF THE STATE AND OWNERS

At present, the concept of public choice, which is widely used in economic research, is in some cases interpreted as state, social and public control (Nureev, 2005). Although, speaking of public choice, we mean the choice made by society, i.e. voters (citizens). Also, the concept of public policy is understood as the political sphere of government controlled by society, i.e. not the choice of a socio-economic system by society, but the general choice and interests of all citizens (not groups, but the people as a whole). In fact, state structures are not interested in sharing power with others (owners, citizens), most decisions are prepared and made in a closed environment, and in this case it is impossible to observe the principles of transparency and freedom of choice. But the activity of the state apparatus is always under the keen interest of society, and the bureaucracy acts as an agent producing public services. For this reason, political rent and its features become objects of discussion (4, p. 27). According to V.Tyan, "Political regulators, within the framework of their authority, intervene in the formation of the state apparatus, in particular, in the implementation of official activity by the institutions of state service. Change or complete replacement of staff to improve the efficiency of public services - is the right of government. Either Inefficiency or rationality in government activity is determined by its nature (character) and the terms of the manifestations of this nature (structure)" (Tyan, 2016). A. Bentley and D.Truman offer to look at politics (the political approach of the authorities) as a sphere of competition for various interest groups. In recent years, as a result of the analysis of modern comments, it was concluded that in the scientific and economic space, neither Western nor post-Soviet countries that have become part of the CIS, there are no holistic, generally accepted ideas about such concepts that are put on the agenda in the research as "lobbyism", "GR" (government relations), "PA" (public affairs). Of course, there are much more research related to "GR" and "PA", and each researcher, depending on the subject (citizens, NGOs, political parties) and object (government bodies and any institution that influences decision making) impact, and level of impact when interacting with the state, comments on these terms in different ways. At the moment, gradually replacing lobbyism and becoming more relevant "GR" and "PA" comprehensively characterize the relationship between government and owners. Thus, GR departments of large companies monitor legislation, the activities of legislative bodies and base their work on building mutual relations and communications between all departments of the company and government bodies. As a result, top managers of some large companies continue their activities in government bodies, and government officials are invited to high positions in large companies. In a number of companies, despite the creation of GR departments, the responsibility for communication on important issues lies with managers. In recent years, there has been a tendency to strengthen and stabilize the mutual communication link between the state and business (public servants and owners).

2.1. Relationships between government officials, political leaders, and owners: a conflict of interest

Building a government based on a constitution and capable of introducing an adequate policy in accordance with changing requirements is one of the basic conditions for the process of creating a government. The development of the economy, the definition of the "rules of the game" of market actors requires the creation of an appropriate legislative framework. The transition to a new economic system is associated with the creation of appropriate democratic institutions, the formation of an economic way of thinking of the population and the national mentality in accordance with the new requirements. This can be achieved without creating opportunities for bureaucratic arbitrariness, corruption and other negative cases (8, p.52). The relationship between the public service and the owners should be built on trust, in which both parties are interested. "The public sector as well needs to change its way of thinking.

We must avoid contrasts between public and private sectors. A modern public administration must support growth and competitiveness of the private enterprises. Today the public sector is a burden for the economy. Bureaucracy, high taxation, hyper-regulation, regulatory uncertainty, inefficiency, inability in understanding the problems facing enterprises, inability in understanding how the markets work, delays in the decision processes. Too often we find in the public approach, in the behavior of single civil servants, and in the legislation, hostility towards our world." (13) At the moment, there is a need for the law to have the maximum opportunity for direct impact. But in conditions of economic reality, this has not been fully achieved yet. The newly adopted laws as well as the previous ones are supplemented by a number of regulations, various rules, orders, instructions, etc. As a result, in addition to the law, a large number of documents are applied to it, which create conditions for the occurrence of artificial obstacles, misunderstandings due to lack of information, deviations from laws and other negative situations. Existing gaps in the laws, as well as the lack of articles to regulate a number of relationships, leads to certain difficulties in managing the economy. On the other hand, ineffective, untimely and unbiased state intervention in the economy can disrupt the general balance. This feature should always be taken into account by the state. Therefore, for the direct impact of the law, its execution and perception, it must be as consistent as possible, detailed enough to regulate the relevant relationships. The list of important tasks for the state service includes: expanding the legal, information and other bases for the development of a democratic state; protection of the institution of special property; assistance to large, hearty and small ownership through the creation of a competitive environment; improving the quality of public services; prevent corruption, combat these incidents and much more. Therefore, in regulating certain economic relations, instead of detailing, there is a need to apply the principles "can do all that is permitted by law" for civil servants and "can do anything that is not prohibited by law" for owners. This approach prevents the exertion of influence beyond the scope of authority, and also allows members of society to make choices, giving them freedom in their activities. Thus, the transition to legal regulation is carried out regardless of the state and government officials and their instructions, as it was in the administrative system of management of the society and its representatives; and by complying with the requirement that in the conditions of market relations, any "activity should be controlled and regulated only by law". Systematization of legislation, taking into account the country's existing customs and the economic and political situation, depends on the interests and will of the legislator, who forms the system and tries to effectively resolve public relations in this area. Basically, the implementation of economic policy is influenced by the way of thinking of the population, decision-makers, owners, and finally, scientists, researchers. "The human factor has a huge impact on management processes, preparation of decisions, assessment of the decisions of the existing management and assessment of the results of its execution." (Shahbazov, Hasanov, Mammadov, Nasibov, 2014, p.66) The course of economic processes indicates the growth of economic consciousness, i.e. observes the growth of intelligent behavior adequately real economic condition. The experience of recent years shows that the presence in the country of a sufficient number of factors influencing the formation of the national economy does not ensure the automatic realization of its superiority at the world level. "Public agency missions and operations are also influenced by political philosophies and political philosophies can change dramatically from one election to another and it is often difficult to shield public employees from undue political influence. Markets cause disruptions too of course, but usually not of the politically partisan nature. In addition, there is no natural mechanism such as the pursuit of profit in the public sector to align the incentives of civil service employees with those of the elected political leaders" (Tosterud, p.2). Ultimately, the materialization of superiority is also linked with the fulfillment of promises made by the state.

Studies related to the relationship between business and government structures, as well as changes in political life indicate that political leaders (heads of state) are confronted with the fact that large political groups, whose actions and interests could be foreseen, are currently divided into a large number of small groups. These small groups can very quickly, in a very short period of time, unite, disintegrate, forming for a time, rally around some problem, and it can be difficult to predict. F.Goudnau and V.Wilson tried to reveal the features of a bureaucratic model capable of producing positive results in a democratic society (between the legislative and executive authorities). At the same time, were made attempts to identify the differences between politicians (people holding political positions) and administrative employees (government officials holding executive and management positions). In their opinion, "For the development of democracy, politicians must control the activities of administrative workers, and such subordination should be consolidated at both the individual and collective levels. In this case, the administrative staff will not be able to intervene in politics and will only be able to act in the direction that the politicians indicated to them, to follow the instructions." (8, p.2) The presence of an internal threat to democracy, the formation of new structures of national culture and economy, the emergence of problems of fanaticism and ethnic minorities, the raising of the economy to a new level make it necessary to apply various styles and methods of management.

3. DIFFICULTIES IN ASSESSING THE EXECUTION OF INSTRUCTIONS, A SYSTEMATIC APPROACH AND ANALYSIS OF THE SITUATION

The state makes it necessary to analyze the factors of administrative management complexity and its multidimensionality, not separately, but from the point of view of integrity and interaction, as one derivative of the other. Despite the fact that in the administration of the state, each element has a specific function and purpose, they should be studied as an integral system. On the one hand, this system should be considered as acting, sufficiently resistant for existence in any conditions; on the other, as changing, by virtue of its development. However, in the systems approach there are moments that cannot be explained and analyzed. This is due to a specific mechanism explaining the integrity of the public administration system and determining the type of links in the system. Determining the presence of bonds of various types is not enough. It is necessary to group these connections from the logical point of view as similar and analyze them, bringing them to the form "connection-operation"; however, in practice it is a difficult process. Cause in various structures of state administration it is not always possible to fix these connections. In this case, it is very important to analyze the complexity of the system, its criteria and the importance of these criteria. The problem is considered wholly, taking into account the interrelation and results of relative, individual decisions, which, in turn, is the cause of solving problems by alternative means. One of the basic conditions is the non-contradiction of the decisions and goals of individual downstream departments to common solutions and goals. Although, in practice, in some cases, such contradictions are observed. And this affects the quality of reforms in any area. For this reason, when building a model on the basis of a systematic approach, it is necessary to take into account all factors and relationships (and in some cases, various situations that may arise under the influence of these factors) that may collide in real life when a solution is implemented. When building such a model, one of the main goals is to study how much an action may affect the overall result, as well as how many of which resources and funds may be needed. Despite the need for resources and costs, with a view to continuous development, you need to spend them with savings. At the same time, both external and internal influences must be considered. From this point of view, systemic, consistent and decisive measures recently conducted in the republic with a view to developing the environment of ownership are positively assessed. In addition to the positive, there are a number of factors that impede the implementation of economic policy.

In order for the implemented economic policy to produce the expected result, first of all, it is necessary to get rid of the constraints that are negatively affecting the development of the economic thinking of the people: political ideological, class, religious, psychological, etc., based on common national characteristics. Another obstacle is the inability to correctly calculate the phase of time periods.

3.1. Inability to correctly calculate the phase of time periods

It is obvious that for the implementation of economic reforms it is necessary to conduct a series of specific actions in a certain period of time. Economic processes do not occur instantly and for the implementation of reforms in addition to resources, time is needed for a number of activities. Therefore, in the implementation of reform measures, delays occur, which, in turn, leads to the formation of a length of time that removes the final result from the goal. In general, the governing bodies should know not only the results of economic reforms, but also when they occur, i.e. how long does it take to achieve these results.

3.1.1. The stage of confirming the problem

The time frame that indicates the stage of recognition of a problem is the length of time necessary for politicians and government officials to accept the fact that there is a problem requiring government intervention. But in reality, in most cases, this time span covers more time than necessary. Especially in some cases, the slowness of officials, politicians, scientists, proprietors, researchers in defining and publicizing a problem, their fear to openly admit and report a problem or unwillingness to accept a situation as a problem leads to the fact that this period of time increases, and the problem itself reaches large in size, distributed in society and in the economy, deepens.

3.1.2. Stage of finding a solution

The next step in finding a solution is the time interval between the stage of recognizing a problem and making decisions for its resolution. After the fact that there is a problem, it takes time to prepare and adopt the necessary legal acts, and especially laws. And although the media associate this situation with leaders in power (politicians), the truth is that even a high-ranking leader can become a hostage to the system. The system here means not capitalism, socialism, a market or an administrative body, but bureaucracy. In all democratic countries (England, France, Germany, etc.), the day-to-day work of the authorities, necessary for the adoption of bills, the documents submitted for signature are not prepared by people elected for their posts democratically, but by bureaucrats (people in leadership and administrative public service positions) (Toffler, 2003, p. 311). Political leaders often express their dissatisfaction with bureaucrats and talk about how many difficulties and obstacles they face when executing their plans. And as a cause of discontent are indicated the late reaction of bureaucrat, the accumulation of problems and the inability of bureaucrats to solve them. Studies related to the mechanism of power have shown that managers face the problem of choice only if civil servants cannot agree among themselves. Of course, there are decisions that must be made by the first person (for example, decisions in emergency situations that require increased secrecy) and which are not allowed to be discussed by government officials. But in everyday life, such situations are rare, and usually civil servants choose between several suggested options. In addition, leaders (political leaders) have a more superficial understanding of the problems than government officials (bureaucrats). Social and technical changes lead to problems related to combining several activities. And civil servants (bureaucrats) in some cases, mainly when the problem is related to the direction of activities of several bodies, cannot solve the problem in a fruitful way due to the impossibility or unwillingness to transfer their funds to the budget, authority and rights to others.

As a result, there is not a high-quality performance of the work and the solution of the problem in a fruitful way, but a competitive struggle for the appropriation of state funds. Note that in practice, various special commissions are often organized as a measure for resolving difficult situations. In reality, as well as in the business sphere, the need for the reorganization of public administration is increasing. In such cases, only leaders (political leaders) are able to take power from the hands of state employees (bureaucrats). For example, in the Republic of Azerbaijan, as a result of direct attention to the process of creating a favorable business environment of President Ilham Aliyev and meetings with businessmen, controlling the problem, and also coming into force to eliminate existing provisions that caused discontent, the Law of the Republic of Azerbaijan "On Suspending inspections in the field of entrepreneurship" from November 1, 2015, gaps in the legislation were eliminated (1).

3.1.3. The stage of decision-making and implementation by the public authorities

Decision-making and implementation of measures by public authorities largely depend on the extent to which the public administration body effectively operates. The need for the development of new approaches to decision-making in business development and public administration is growing. The following stages, which are important in the civil service system, should be considered:

1. 1.Collection, processing and analysis of the information essential to the situation analysis; revealing negative and positive aspects;
2. determination of goals and sort by the degree of importance;
3. analysis of the availability of resources needed to achieve the objectives and capacity assessment;
4. choosing the most optimal way of achieving goals, developing alternatives, analyzing and evaluating efficiency;
5. decision making and its implementation, coordination;
6. performance analysis, removal of obstacles and shortcomings;
7. evaluation of results.

One of the issues in the broader media market is the refinement of good politics. The main issue discussed in the economic policy is that states are pre-defined and supported by precautionary measures for each trafficked person, or because of the absence of such cases or the support of the actors to act according to the situation at every stage. "Predefined Guidelines" or "discrimination" in the application of "state-imposed" policies pursuant to economic changes. The key point to be taken into consideration is that if uncertainty arises from the effects of the illness, it must be exploited or abandoned, and that their effects should be considered in advance and timely, ie delayed action should be taken. Other factors that hinder the implementation of economic reform are expectations that are unaccountable and inadequate, inadequate and uncertain. Assessment is complicated and problematic, making it necessary to consider a number of points. This is primarily due to the fact that the repetition of a number of situations is a threat to the short-term existence of insecurity in a long-term period, mainly due to the reputation of the population and its credibility. In other words, the realization of a single decision is affected by the consequences of the occurrence of different moments and the smaller decisions made. Sometimes the adoption of the normative-legal act does not result in its functioning and implementation. Therefore, special measures are needed to implement the decision. For example, as a result of the adoption of the Law of the Republic of Azerbaijan "On suspension of entrepreneurship inspections", the inspections carried out in the territory of the Republic of Azerbaijan for 2 (two) years have been suspended and the General Prosecutor's Office of the Republic of Azerbaijan " On Additional Measures for the State Regulation of the Implementation of the Law of the Republic of Azerbaijan, Laws of the Republic of Azerbaijan

on the Implementation of the Law and Inspections in the Field of Entrepreneurial Activity ", to investigate information on violations of the requirements arising from the Decree of the President of the Republic of Azerbaijan No 660 of 26 October 2015 and to ensure that appropriate measures are taken to detect violations, the Republic of Azerbaijan It is recommended that regular information be provided to the President of his ward (2). Recent research shows that in developed countries, the interaction of business with the authorities is not developed on the basis of individual interviews with civil servants (officials), but rather towards the creation of more stable, long-term communication systems. The development of information technologies in turn creates new opportunities for the business to formulate and implement a strategy for interaction with government agencies. Also, new communication technologies also lead to change in hierarchy of government. That is, some structural units lose their relevance and become unnecessary. Apparently, economic development requires the development of interaction between business and government authorities. As a result, both of them need to take and apply certain features. This in turn leads to structural changes in the background of changes in one.

4. CONCLUSION

The influence of human characters and motives on decisions made at the time of the model of management should always be discussed. The following steps should be taken into account during the administrative decision-making process:

- After the problem has been analyzed, a structured-functional analysis of the decision-making must be carried out, a motivation model should be selected, and methods of restoration, quantitative decision-making and other approaches (methods) should be selected when motivation changes occur;
- The positive and negative aspects of the selected method should be predicted in advance, pre-requisite preparations should be made for negative parties, and measures to alleviate their impact strength should be determined. At the same time, the decision-maker should evaluate the situation correctly and determine which factor is important in this situation and how the outcome of the change (one or more) consequences will ultimately result;
- The person making the decision should have the tools, techniques and skills to achieve the goal.

In a systematic approach, there is a need to define the place and function of social elements (e.g., age, education, gender, lobbying and others), that is, the elements of social interaction, in the public administration system, mostly in structural-functional analysis. In most cases, it is attempting to determine the degree of dependency between the management activity and the interaction of these social factors. Also, the governance of the management activity is not static, but dynamic, with the possibility of relationships between management activity and social factors, i. e., depending on the situation (as the events occur) and the possibility of change. The struggle between civil servants (bureaucrats) and political leaders is inevitable for the management of the system, which leads to the radical reorganization of the bureaucracy, resulting in a change in the relationship between political leaders and civil servants (bureaucrats). Communication plays an important role in this process. Given how much information and knowledge are used in management, more and more society becomes "information and knowledge society", making the management more difficult. Unlike the jurisdiction system, the legislative system is fundamentally subjective. Thus, the texts of the normative acts reflecting them are drawn from the point of view of practical expediency by legislators (law-abiding, often civil servants). Despite the fact that a number of recent events have yielded positive results, the gap between the laws of each of the system and in some cases, contradictions necessitates more attention to the improvement of the law enforcement and

monitoring systems. Thus, the study of the application of the legislation should be systematically implemented, and proposals for improvement of the legislation should be in line with the findings of the legislative basis for the implementation of the legislation, as well as the findings of violations and shortcomings, should be taken into account in order to eliminate gaps in legislation.

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CAPITAL MARKETS UNION AND EUROPEAN COVERED BONDS INITIATIVE FOR UPGRADING CAPITAL MARKETS IN THE NEW MEMBER STATES

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ABSTRACT

Covered bonds represent one of the oldest European financial instruments. Covered bond market started with a need to finance the agriculture and was later focused on a real estate. Today, the covered bond market is one of the largest debt market in the world with EUR 2.5 trillion in outstanding amounts, representing a cost-effective source of funding for banks in facilitating the financing of real estate loans and public sector loans. It is active in more than twenty different European countries and growing at the rate of 20% annually outside the European Economic Area. Following these trends, the European Commission has identified new set of building blocks for the Capital Markets Union to enhance more efficient cross-border investments across the EU that could support the real economy and job creation. One of these policy measures concerns a regulatory proposal for the European Covered Bond, to be harmonized on the EU level. Based on the analysis of secondary data, this paper aims to serve two purposes. First, it is to disentangle the effects of the proposed EU covered bonds legislation on the European financial system. Second, to research potential costs and benefits for the Central Eastern and South Eastern European financial markets with regard to harmonisation of the European covered bonds legislation at the EU level.

Keywords: *capital markets regulation, Capital markets union, European covered bonds, Central Eastern and South Eastern European capital markets*

1. INTRODUCTION

The covered bond represents one of the oldest European financial instruments. They are rooted all the way back to ancient Greek mortgages followed by Italian and Dutch bonds. Further development has been recorded in 18th century in Denmark and Prussia, followed by most European countries in the 19th century (Schwarcz, 2011, p. 563-564). Covered bond market started with a need for finance the agriculture and was later focused on real estate. Documents state that in the past (as well as the present time) covered bonds proved an important factor for the stability of the financial system. Although covered bond market had experienced a decline during the mid-20th century, due mostly to the strong development of the deposit base (which remained the trend in some Central Eastern and South Eastern European countries to present time) from the mid-1990s covered bonds are experiencing a renaissance, mostly due to the introduction of the single currency and low interest rates (European Covered Bond Council, 2018, p. 131-140). Today, the covered bond market is one of the largest debt market in the world with EUR 2.5 trillion in outstanding amounts, representing a cost-effective source of funding for banks in facilitating the financing of real estate loans and public sector loans. It is active in more than twenty different European countries and growing at the rate of 20% annually outside the European Economic Area, e.g. Australia, Canada, New Zealand, Singapore, etc. (European Commission 2018b, p. 5-8; European Covered Bond Council, 2018, p. 131). Following these trends, the European Commission has identified new set of building blocks for the Capital Markets Union to enhance more efficient cross-border investments across the EU that could support the real economy and job creation. One of these policy measures concerns a regulatory proposal for the European Covered Bond, to be harmonized on the EU level. The purpose of this paper is to research the policy developments under the Capital Markets Union,

taking special emphasis on the latest policy proposal on the European Covered Bonds legislative initiative by the European Commission and the effects it might bring for the European capital markets. The paper also examines more closely the possible outcomes the initiative might generate for the new Member States, namely Central Eastern and South Eastern European countries and their capital markets. Following short introduction, the paper provides an overview of the Capital Markets Union and European Covered Bond legislative initiative while the third part explores potential costs and benefits of this policy action. The fourth part examines trends on the Central Eastern and South Eastern European capital markets with regard to European covered bond market developments while chapter five summarises the main conclusions.

2. THE CAPITAL MARKETS UNION AND THE EUROPEAN COVERED BONDS LEGISLATIVE INITIATIVE

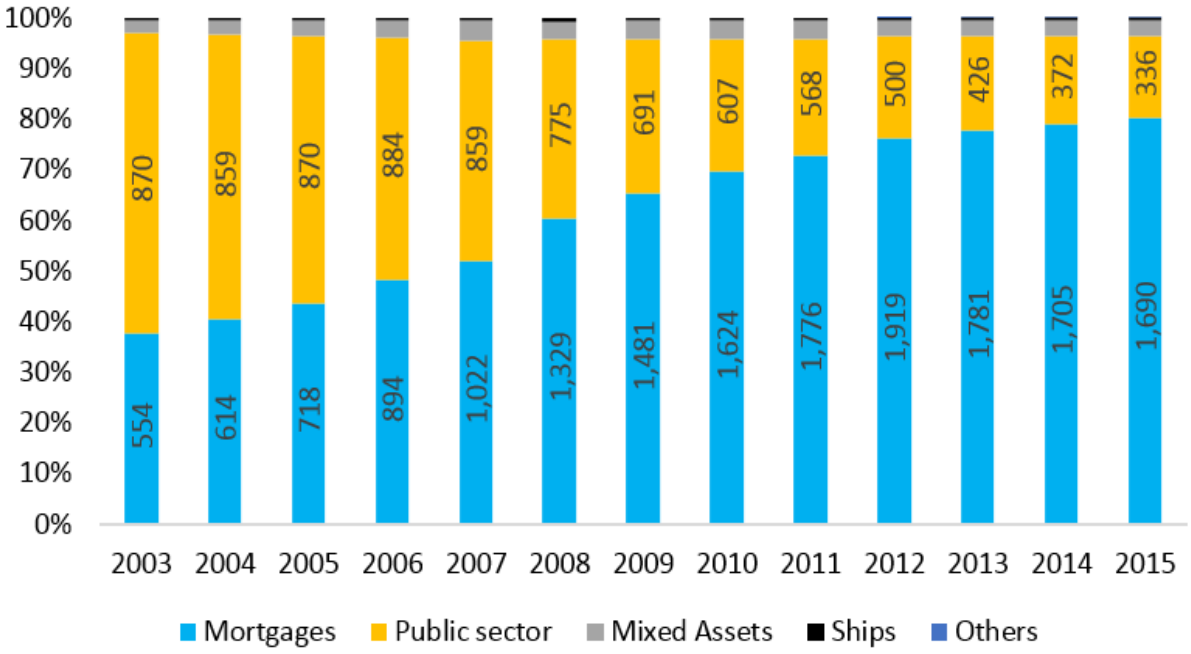
After many decades of minimum harmonisation in the EU (Ferran, 2004: 1-7; Moloney 2008: 11-16) for various reasons and obstacles (e.g. Shuangge, 2013), the 1990s represent a new trend of integration process (Bieling, 2006; European Central Bank 2009). The Capital Markets Union is an initiative by the European Commission's President Juncker (2014) to further stimulate European financial integration (European Commission, 1999, 2005, 2009). The Capital Markets Union is an European Commission's policy initiative to develop and promote integrated European capital markets, with its goals identified in the Action plan, to: (i) provide new sources of funding for businesses, especially for small and medium-sized enterprises (SMEs), (ii) reduce the cost of raising capital, (iii) increase options for savers across the EU, (iv) facilitate cross-border investing and attract more foreign investment into the EU, (v) support long-term projects and (vi) make the EU financial system more stable, resilient and competitive (European Commission, 2015a, 2015b). Additionally, the Mid-term review of the Capital Markets Union Action Plan states that three legislative initiatives have been agreed between European Commission, the European Parliament, and the Council of the European Union, namely: new Prospectus regulation, review of European Venture Capital Fund Regulation and European Social Entrepreneurship Funds Regulation and amendments to Solvency II Directive (European Commission, 2017, p. 6-9). Furthermore, there are nine more legislative initiatives pending for the agreement between three above-mentioned European institutions (ibid.). Furthermore, European Commission has identified three new building blocks for the Capital Markets Union. Firstly, European covered bonds, a new regulatory proposal with a goal of promoting cover bond markets as an important source of relatively cheap and long-term funding for banks in order to stimulate market financing (ibid, p. 5-7). Secondly, Commission has legislative initiative to endorse cross-border distribution of investment funds (ibid., p. 15-16). Thirdly, there is an initiative to promote legal certainty in cross-border transactions in claims and securities (ibid., p. 6). Following the Commission's call for advice at the end of 2013, European Bank Authority (EBA) monitored and analysed the functioning of the covered bonds market in the period of two years under the best practices principle and based on two reports, the EBA gave recommendation for legal harmonization of covered bonds at the EU level (Proposal for a Covered bonds Directive, COM(2018) 94 final, p. 6-7). Following the Mid-term review of the Capital Markets Union Action Plan, European Commission conducted series of public consultations and hearings from September 2015 to the end of 2017 with key stakeholders as a preparation phase for the Directive and Regulation Proposal, along with meetings with the Expert Group on Banking, Payments and Insurance and the Financial Services Committee. Consultations confirmed support for principal based legal harmonisation, with certain concerns regarding "one size fits all" model as an obstacle to flexibility of well-functioning national systems (Proposal for a Covered bonds Directive, COM(2018) 94 final, p. 5).

In July 2017, the European Parliament issued a report giving support to the EU legislative initiative. In March 2018, the European Commission launched the Proposal for the Covered Bond Directive. In the following chapters, we will focus more closely on the issue of the European covered bonds and its contribution to the integration of European capital markets through the Capital Markets Union.

3. PROPOSED EUROPEAN COVERED BONDS LEGISATION AND ITS IMPACT ASSESMENT ON THE EUROPEAN CAPITAL MARKETS

The proposed Covered Bonds Directive provides common definitions on the issue of covered bonds and covered bond public supervision (art 3), also the structural features of covered bonds (art. 4-17), covered bond public supervision and rules regarding use of the "European Covered Bonds" label (art. 18-27). The proposed Covered Bonds Regulation (European Commission, 2018a, COM(2018) 93 final) is amending art 129 of the Capital Requirements Regulation and aiming to strengthen the requirements for covered bonds in the area of preferential capital treatment. Proposal for a Covered bonds Directive defines covered bonds as "a debt obligation issued by a credit institution and secured by a cover pool of assets which covered bond investors have direct recourse to a preferred creditors" (art. 3(1), COM(2018) 94 final). Covered bonds are most commonly issued by banks and represent an important source of cheap and long-term wholesale funding for these credit institutions. Furthermore, covered bonds play an important role in facilitating the financing of real estate loans and public sector loans. Regarding investors, European Commission states that covered bonds represent safe investment because of their "dual recourse" mechanism, i.e. investors are covered by both the assets in the cover pool and also they are entitled as ordinary creditors for any amount not settled with the liquidation of the cover assets (European Commission 2018b, p. 2; Packer, Stever and Upper, 2007). Cover pool frequently comprises of high quality assets, such as mortgage loans and public sector debt (Figure 1). The composition has been shifting in the past 15 years from the public sector debt to more mortgage debt.

Figure 1: Composition of the cover pool in EU countries' outstanding covered bonds (2003-2015). Figures in bars are in € billion

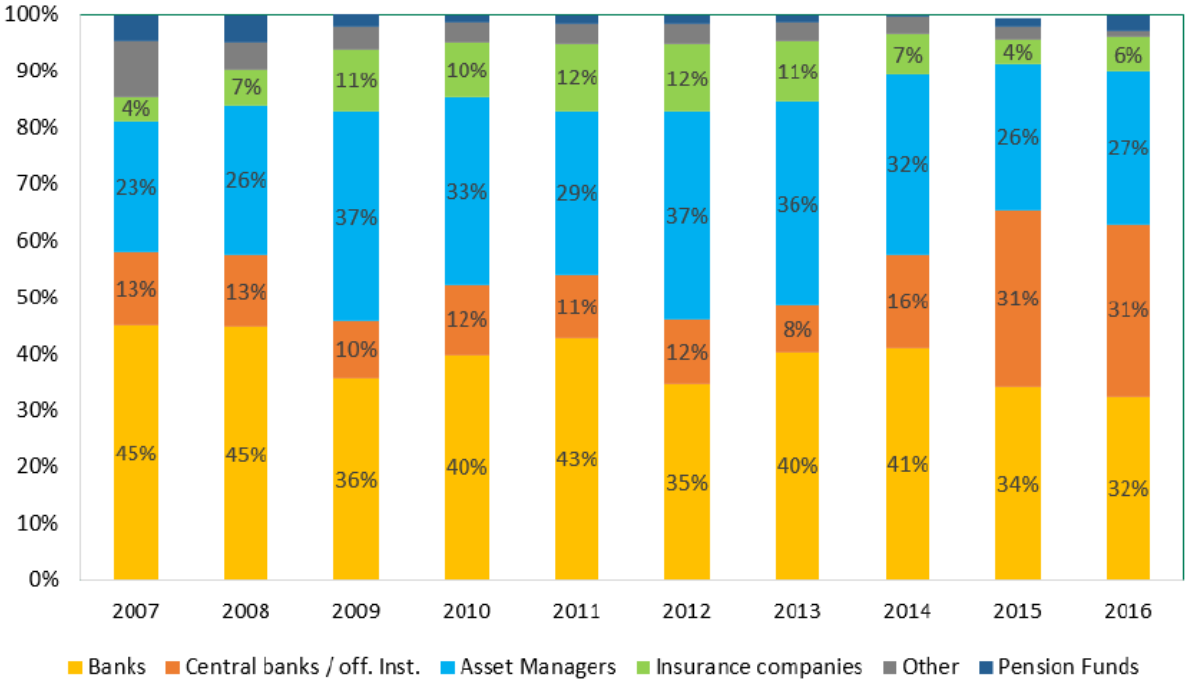


Source: ICF (2017) Covered Bonds in the European Union: Harmonisation of legal frameworks and market behaviours, April 2014, p. 24.

European Commission states two general and other specific objectives of the European covered bonds legal harmonization process: firstly, to support Capital Markets Union by allowing banks to support wider economy: (i) to support development of covered bond markets in all EU Member States, (ii) to diversify investor base (see also Figure 2), (iii) enhance cross border investments, (iv) attract investors from outside the EU. Second objective is focused on prudential rules regarding covered bonds: (i) to align structural characteristics of covered bonds across the EU with the risk features underlying the EU preferential treatment, (ii) expand requirements for capital preferential treatment and (iii) address new risk from new liquidity structures (European Commission 2018b, p. 25-27). In the terms of the size and the nature of the market, covered bonds are still dominantly an EU financial instrument accounting for 84% of the global market, although in the last 15 years non-European Economic Area markets had a growth rate of 20% annually. Covered bond markets are active in 23 European countries, while Baltic and few Eastern European countries are preparing to implement proposed EU legislation, Croatia included. Outside the European Economic Area, Australia, Canada, New Zealand, Singapore, South Korea (and recently Turkey) have active covered bond market. Over the past few decades, covered bond market has become one of the most important debt market in the EU, with around EUR 2.5 trillion in outstanding amounts at the end of 2017 and more than 260 issuers (European Covered Bond Council, 2018, p. 131; European Commission 2018b, p. 5-8). Germany represents the largest covered bonds market (EUR 384 billion, in terms of outstanding volume) with around 80 issuers, followed by Denmark (EUR 383 billion), France (EUR 323 billion), Spain (EUR 281 billion), Sweden (EUR 222 billion), Italy (EUR 131 billion), and the UK (EUR 121 billion). The four largest EU covered bonds markets account for around 2/3 of the EU market (European Commission 2018b, p. 6). Although cross-border investments represent around 60% of total investment, these investments mostly take place between countries with similar covered bonds and mortgage legislation, e.g. between Nordic countries (Ibid., p. 19). As shown on Figure 2, banks and central banks represent the largest investors in cover bonds, with central banks raising their share, while investors such as asset managers and insurance companies have somewhat lowered their share, but it still amounts to up to a third. This is mostly due to European Central Bank's quantitative easing policy through asset purchase programmes, which was originally designed to boost liquidity in the banking market, but has also consequently lowered yields, resulting in reduction of asset managers', pension funds' and insurance companies' share in the investor base at the covered bonds market. There is a noticeable lack of retail investors in the covered bonds market, due mostly to high investment costs (minimum denomination is around EUR 100.000), however they are indirectly present through investments in insurance and investment funds (ibid., p. 8).

Figure following on the next page

Figure 2: Investor distribution by investor group (by year)



Source: ICF (2017) Covered Bonds in the European Union: Harmonisation of legal frameworks and market behaviours, April 2014, p. 26.

There is a vast majority supporting the harmonization of rules regarding covered bonds at the EU level, in agreement that integrated capital markets provide many benefits. Conducted Impact Assessment identified following benefits: (i) reduction in regulatory fragmentation, (ii) reduction in asset and liability side duration mismatches, (iii) improved process of conducting due diligence and credit analysis of covered bonds, (iv) supporting integrated European capital markets, (v) improved monetary policy transmission, (vi) enhance capital market access to small-medium issuers and (vii) reduce investor's reliance on external ratings (European Commission 2018b, p. 49-54). In quantitative terms, the Impact Assessment has calculated lower borrowing cost, i.e. general annual savings estimated between EUR 1.5 and EUR 1.9 billion (Ibid., p. 42-43). Generally, it is quite expensive to set up and run a covered bond programme. Firstly, direct administrative one-off costs include: IT system set up, cost of prospectus, application and registration fees, investment bank and rating agencies' fees. On average, they range between EUR 590.000 and EUR 1.8 million (cheapest in Poland at approx. EUR 400.000 and most expensive in Denmark up to EUR 3.8 million per programme). Secondly, direct administrative recurrent costs include: staffing costs, back office, cost of cover pool monitor, professional associations (e.g. European Covered Bond Council), registration fee, annual fee for the label, Bond and Security Trustee. On average, they range between EUR 300.000 and 475.000. Finally, supervisory costs are estimated between EUR 70.000 and 100.000 per covered bond programme (ibid., p. 45-49). Regarding potential threats, there were concerns that harmonized EU rules might weaken efficiency and flexibility of the already well-functioning markets (Proposal for a Covered bonds Directive, COM(2018) 94 final, p. 5). In the terms of costs, they include transition costs, e.g. administrative costs for issuers in implementing changes in legal documentation and IT systems. In addition, there are new costs for issuers of the new covered bonds (European Commission 2018b, p. 52). Another downside of the covered bonds market is that it is limited mostly to larger banks, due to high costs of issuing procedure. Additionally, undiversified investor base (Figure 2) means more credit risk that stays within the banking sector.

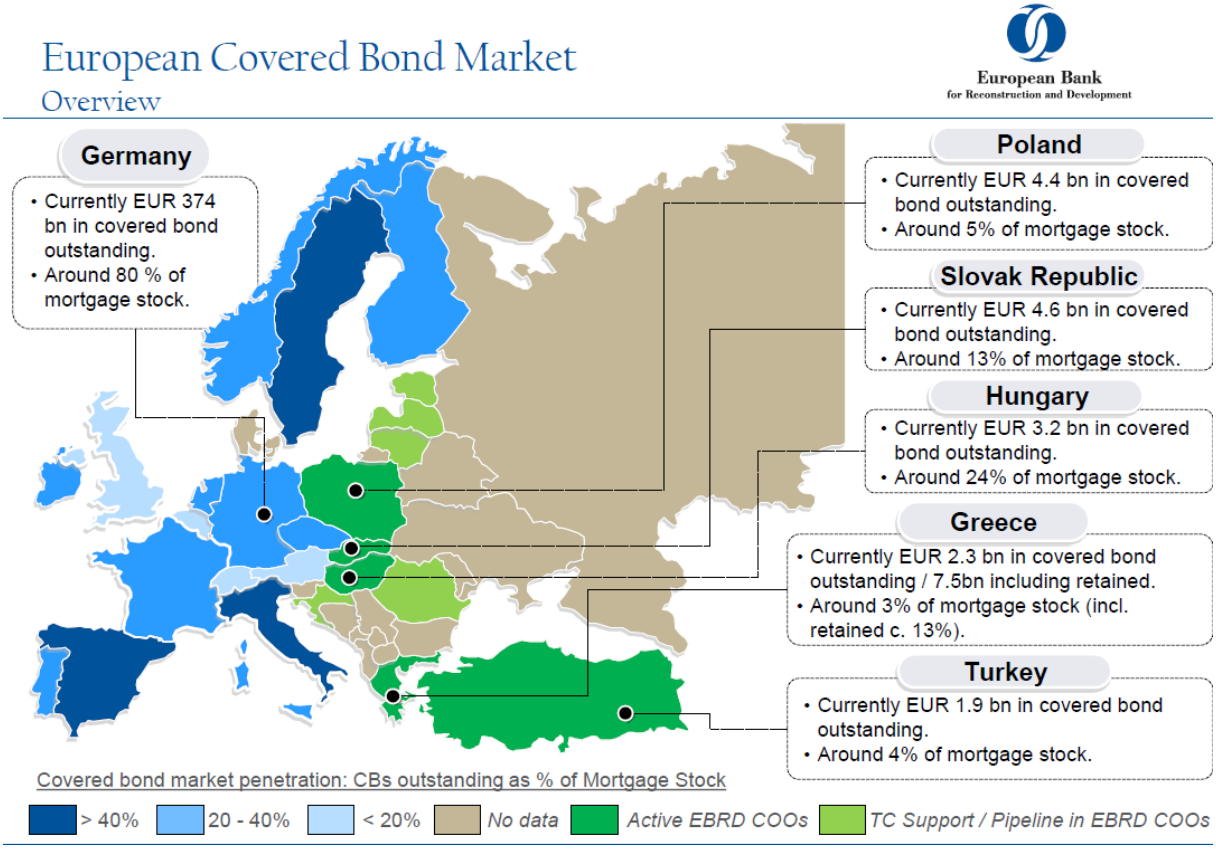
Furthermore, new risks are arising from new financial innovation, i.e. the increased conversion of existing bond from "hard bullet" to "soft bullet" structures extending scheduled maturities and therefore changing structural characteristics of the covered bonds (Ibid., p. 22-23). The regulators aim to address the above-mentioned issues through harmonisation of covered bonds legislation across the EU hoping to promote the trend of diversification of the covered bonds investors' structure, support more cross-border investments, as well as investments from outside the EU and development of covered bonds markets in all remaining EU Member States (Ibid., p. 14-23).

4. NEW MEMBER STATES PERSPECTIVES – POTENTIALS FOR THE CENTRAL EASTERN AND SOUTH EASTERN EUROPEAN CAPITAL MARKETS

Covered bonds markets are unevenly developed across the EU with four Member States (Germany, Denmark, France and Spain) representing 2/3 of the EU market. In countries like Denmark, covered bond market is more than 200 years old and all real estate mortgages are financed through covered bonds. While some Member States have long-standing tradition of covered bonds markets, most of the new EU Member States have underdeveloped or non-existing covered bonds market. There are three EU Member States having no legal framework nor active covered bonds market: Estonia, Malta and Croatia, while six Member States have legislation in place but no active market: Bulgaria, Cyprus, Latvia, Lithuania, Romania and Slovenia (European Commission 2018b, p. 15-17). The European Commission recognises a big opportunity in advancing capital markets in Central Eastern and South Eastern Europe, stating that these new Member States count for 20% of Europe's population, 8% of GDP but only 3% of its capital markets (European Covered Bond Council, 2018, p. 85). European Commission's analysis shows that there is a correlation between level of development of the covered bond market and the size of national banking sectors in the EU. However, the level of development of the covered bond market has no correlation with the ownership structure of the banking sector, i.e. whether the banks are domestically or foreign owned (Ibid., p. 16). Banking sector in the Central Eastern and South Eastern European countries historically has a very strong deposit base system, which makes banks less attentive to alternative sources of additional funding (Breyer, 2004; European Commission, 2018b, p. 17), which was a situation for the old Member States in the mid-20th century. European Commission (2018b, p. 17) stresses that International Monetary Fund and Bank for International Settlement warn that more diversified span of funding sources is needed for banks to be more resilient in cases of financial crisis. The European Commission estimates the benefits from additional issuance of covered bonds at around EUR 63 billion (out of EU total of EUR 342 billion) from the new Member States activating its covered bond market (Ibid., p. 41-42).

Figure following on the next page

Figure 3: European Covered Bond Market - Overview



Source: EBRD, ECB, Thomson Reuters, in EBRD presentation "New EU Covered bonds framework – What's in it for Croatia", organised by the EBRD and Croatian National Bank on 20th November 2018, Zagreb, Croatia.

Figure 3 provides an overview of covered bond market in the Central Eastern and South Eastern European capital markets in which European Bank for Reconstruction and Development (EBRD) has conducted projects to support development of the covered bond markets. Poland had an unfavourable regulatory architecture, which allowed only for mortgage banks to issue covered bonds. The EBRD provided technical assistance and new legislative framework was set up in 2016 to create a modern platform for investments, also backed up by EUR 115 million of the EBRD's investment in Polish covered bonds market. The EBRD has made other investments in the covered bond market: Greece EUR 110 mil., Slovak Republic EUR 80 mil., Hungary EUR 45 mil, etc., supporting the legislative processes as well (EBRD, 2018). A positive example of a new Member States approach to European covered bonds market creation is an initiative by the Baltic States to form the Pan-Baltic covered bond project. This project is a part of a larger agenda in which at the end of 2016 Estonia, Latvia and Lithuania have decided to create a common capital market. They will act within their national legislation implementation process in a way to be aligned with one another in the area of both regulation and supervision to build efficient and integrated cross-border covered bond market (European Covered Bond Council, 2018, p. 90-92).

5. CONCLUSION

Today, roughly 30% of Europe's mortgages are funded through covered bonds system (EBRD, 2018). In some European countries like Denmark, it is almost a 100% rate, although this is an example of a long tradition of efficient covered bond market. Most Western European countries are taking advantage of this sophisticated financing mechanism that provides system with more

liquidity, in which Germany, Denmark, France and Spain hold more than 66% of the market, although the covered bond market is growing rapidly in the non-European Economic Area, such as Australia, New Zealand, Singapore and Turkey. Covered bonds have couple of important features, they represent valuable source of cheap and long-term funding for banks while simultaneously playing an important role in facilitating the financing of real estate loans and public sector loans. They are considered a safe investment because of their "dual recourse" mechanism. They have also proven to be significant factor for stability of the financial system. Following EBA's advice for harmonisation of the covered bonds regulation at the EU level, the European Commission has proposed a directive and regulation on this matter, taking principle based approach in order to allow flexibility of already well-functioning national systems. Initial impact assessments are generally positive, predicting reduction in regulatory fragmentation and more cross-border transactions, better investor protection and more integrated European capital markets. In quantitative terms, European Commission predicts annual savings in lower borrowing costs between EUR 1,5 and 1,9 billion, although there are potential risks arising from new financial innovation and it is generally quite expensive to set up and run a covered bond programme, therefor limiting the market issuers to big players such as banks. European Commission recognises big potential for new Member States, Central Eastern and South Eastern European countries since they amount for only 3% of European capital markets. Although banking sector in these EU Member States historically has a very strong deposit base system, alternative sources of additional funding are known to promote financial stability. The European Commission estimates the benefits of developing covered bonds market at around EUR 63 billion and the EBRD has played a an important role in the region of setting up a modern legislative framework and also investing significantly into numerous Central Eastern and South Eastern European capital markets.

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THE CURSE OF TRANSFERS? MODELLING FISCAL POLICY EFFECTIVENESS IN AZERBAIJAN

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ABSTRACT

The article aims to provide a new approach to the modelling of fiscal policy effectiveness in Azerbaijan. Thanks to its natural resource wealth, the country has enjoyed oil boom period during 2005-2015, accompanied with huge revenues which are accumulated in the State Oil Fund of Azerbaijan Republic (SOFAZ). Government of the country started to inject resource revenues to the national economy through fiscal channels massively after 2008. Large amount of oil revenues is transferred to the state budget from SOFAZ. In this article, it is argued that those transfers sharply declined the impact of budget expenditures over non-oil sector economic performance, so called fiscal policy effectiveness. Application of various break point tests to the period of 2000Q1-2018Q1 presents existence of break in 2009Q3. Therefore, periods of 2000Q1-2009Q3 and 2009Q3-2018Q1 are taken separately to assess long-run fiscal policy effectiveness in Azerbaijan. Fully Modified Ordinary Least Squares (FMOLS), Dynamic Ordinary Least Squares (DOLS), Canonical Cointegration Regression (CCR), and Autoregressive Distributed Lag Bounds Testing (ARDLBT) cointegration techniques are employed to estimate long-run models in both periods. Empirical results all together supports the proposed claim that fiscal policy effectiveness has decreased significantly in the second period compared to the first. It is argued that the sharp fall is mostly due to the use of easy gained revenues, so called "the curse of transfers". Results of the study are fairly useful for policy officials to consider while preparing budget proposals under the pressure of low oil prices.

Keywords: *Azerbaijan, direct transfers, fiscal policy effectiveness, non-oil sector, oil revenues, resource curse*

1. INTRODUCTION

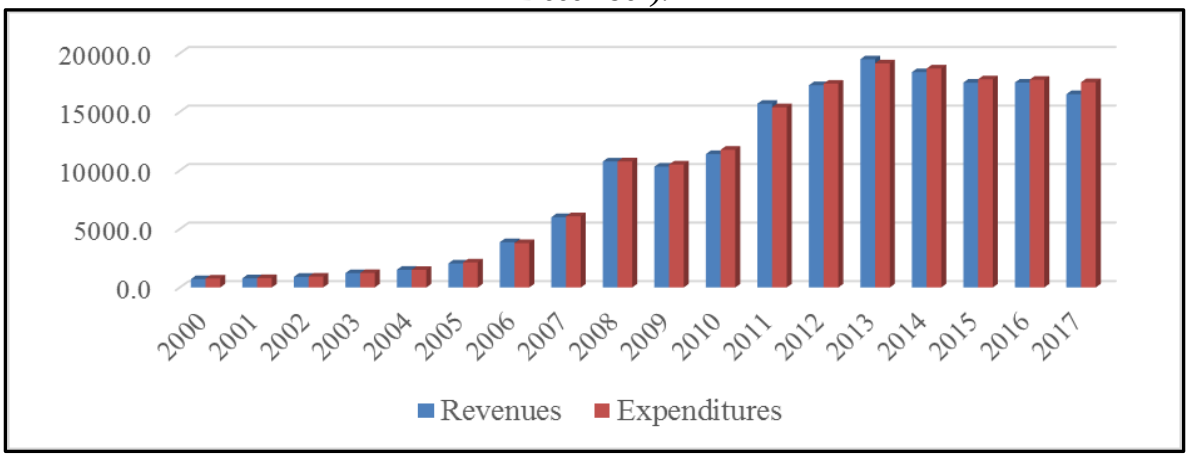
To achieve sustainable economic growth performance is one of the main goal of governments in modern economies Fiscal policy tools are the major channels to stimulate economic growth in the context of Keynesian hypothesis. This may happen through either increasing public expenditures or decreasing tax rates. However, implementation of excessive expansionary fiscal policy can affect fiscal balance and the sustainability of public debt in economies (Afonso and Furceri, 2010). Although the goal is to stimulate economic growth, increasing role of government may affect adversely due to inefficiencies, crowding-out effects, the excess burden of taxation and the distortion of incentive systems (Afonso et al., 2005, 2011). That is effective use of fiscal tools is essential for successful policy implementation. However, that is a challenging issue which is also strongly depend on political-institutional factors (Talvi and Vegh, 2005; Kaminsky, Reinhart and Vegh, 2005; Alesina, Campante and Tabellini, 2008) and corruption level (Dietz, Neumayer, and Soysa, 2007; Andersen and Aslaksen, 2008). Achieving and maintaining effectiveness of fiscal policy implementation is even more complicated in resource rich economies where there is easy gained resource revenues in the hands of government. In such economies, governments provide tax concessions and injects more resource revenues generously to the economy due to their political interests which decreases efficiency and increase dependence from extractive industries (Aliyev and Gasimov, 2018a). This reminds the notion of "paradox of plenty" which could end with being unproductive of

even productive expenditures (Devarjan et al., 1996). From this point of view, negative impact of transferred natural resource revenues over fiscal efficiency should not be surprising. As a resource rich country, Azerbaijan received large amount of oil revenues especially after 2005. The state budget welcomed some portion of resource revenues in the form of taxes and other payments immediately while major part are accumulated in the national sovereign fund, the State Oil Fund of Azerbaijan Republic (SOFAZ). Meanwhile the state budget also received direct transfers from SOFAZ which expanded sharply since 2008 and the increase in budget expenditures are mostly finances by the transfers (Aliyev and Gasimov, 2018b). How this changed the impact of budget expenditures over non-oil sector is disputable. In the context of "paradox of plenty" approach, here, it is argued that fiscal policy effectiveness sharply decreased after 2008 due to excessive fiscal expansion backed by the transfers. Previous studies on Azerbaijan did not consider possibility of break point, just estimated the strength of short and long-run causality from public expenditures to non-oil economic growth (Hasanov, 2013a, 2013b; Aliyev et al., 2016; Dehning et al., 2016; Aliyev and Nadirov, 2016; Aliyev and Mikayilov, 2016; Hasanov et al., 2016; Hasanov et al., 2018; Mukhtatov et al., 2018; Jabrayilova and Aliyeva, 2018; Abbasov and Aliyev, 2018). Only Dehning et al. (2016) have made an attempt to differentiate the impact as before-and-during the oil boom by employing a dummy interaction term. However, fiscal policy efficiency does not immediately respond to oil boom, operates with some lag. Therefore, this approach is a new one which will give more information about fiscal policy effectiveness during 2000Q1-2018Q1 in Azerbaijan.

2. BACKGROUND

To understand the main trend in fiscal policy implementation process of Azerbaijan, it is noteworthy quickly overview dynamics of the state budget indicators during the investigation period. Clearly observed that fiscal tendency has been sharp expansionary after the launch of oil boom until 2013, which turned to be slight contractionary later.

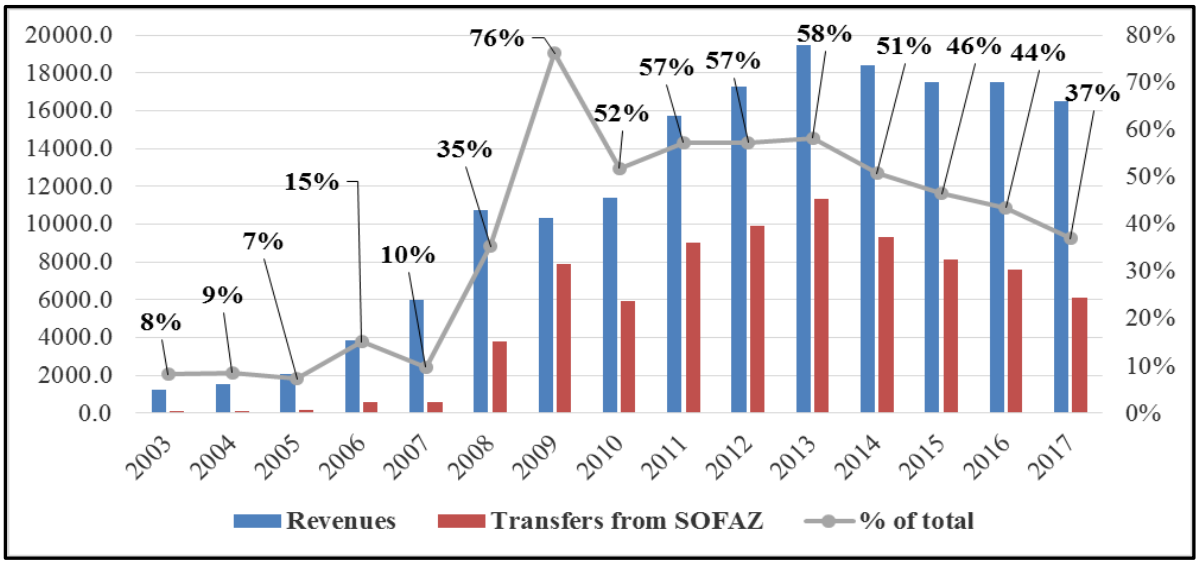
Figure 1: Dynamics of state budget indicators (million AZN) (Adapted from "Statistical Database" by the State Statistical Committee of the Republic of Azerbaijan (2018, December).



Retrieved from https://www.azstat.org/MESearch/search?departament=10&lang=en)

However, substantial change in amount of public expenditures has not been due to revenues from sustainable sources. Indeed, expenditures are mostly financed by natural resource related revenues in the form of direct transfers from SOFAZ as well as tax revenues from oil&gas sector (see Musayev and Aliyev (2017) for detailed description of dependence). Figure 2 displays how the share of direct transfers from SOFAZ in total budget revenues has changed overtime.

Figure 2: Share of SOFAZ transfers in total budget revenues (Adapted from "Statistical Bulletin" by Central Bank of Azerbaijan (2018, December).



Retrieved from https://www.cbar.az/page-40/statistics-bulletin?language=en , "Reports archive: quarterly statements" by State Oil Fund of the Republic of Azerbaijan (2018, December). Retrieved from and http://www.oilfund.az/index.php?page=hesabat-arxivi&hl=en_US)

It is clearly observed that the share has been so small before 2008 when has climbed to 35% and 76% in the following years respectively. Reminding sharp expansionary tendency, change in shares also should be considered as substantial increase in volume of transfers. Thus, volume of transfers has been increased approximately 6.5 time in 2008 and 2.07 times in 2009 compared to the previous year. Reminding "paradox of plenty" issue (Devarjan et al., 1996), it can be expected that effectiveness of budget expenditures to stimulate non-oil economic growth has declined significantly which stands at the center of this research. Results of Dehning et al. (2016) supports this expectation. Therefore, a break in the model after 2008-2009 should not be unexpected.

3. DATA AND METHODOLOGY

The study covers 2000Q1-2018Q1 period. *GDP* is the dependent variable which stand for the amount of total quarterly non-oil&gas output in the country. *BE* displays total state budget expenditures for each corresponding quarter. Another independent variable, *nt_rev* represent total amount of budget revenues left after subtracting the amount of direct transfers from SOFAZ. In other words, *nt_rev* show quarterly amount of non-transfer budget revenues. Remaining two indicators included as control variables are *oprc* and *oprn* denote average quarterly oil price in world market and average oil production amount in the economy for each quarter. Note that *GDP*, *BE* and *nt_rev* are measured as million AZN, converted to real values according to Consumer Price Index (CPI) method at 2000Q4 prices. *Oprc* is in USD and *oprn* is calculated as thousand barrel per day. Descriptive statistics of the variables are given in the table 1.

Table following on the next page

Table 1: Descriptive statistics of variables

Variables	No. of obs.	Mean	Minimum	Maximum	Std. dev	Sum
GDP	73	1926.76	514.95	3617.65	921.62	140653.1
BE	73	1037.82	141.58	2914.85	697.36	75760.63
Nt-revenue	73	598.34	149.39	985.46	262.73	43679.07
Oprc	73	62.63	19.30	121.10	29.57	-
Oprn	73	693.52	274.00	1066.00	275.98	50626.86

To determine if there are breaks in regression models, Bai-Perron tests (Bai and Perron, 2003), Quandt-Andrews unknown breakpoint test (Andrews, 1993), and Chow Breakpoint Test (Chow, 1960) are employed for robustness. To estimate long-run association, Fully Modified Least Squares (hereafter FMOLS) developed by Phillips and Hansen (1990), Dynamic Least Squares (hereafter DOLS, Stock and Watson, 1993), Canonical Cointegrating Regression (hereafter CCR) of Park (1992), and Autoregressive Distributed Lag Bounds Testing (ARDLBT) Approach (Pesaran et al. 2001) are employed. Note that FMOLS is corrected for endogeneity and serial correlation effects while DOLS is corrected for potential simultaneity bias among regressors, and CCR allows to provide asymptotically efficient estimators (Narayan and Narayan, 2004). To identify existence of cointegration relationship in the estimated models by FMOLS, DOLS and CCR, Engle-Granger (Engle and Granger, 1987) and Philips-Ouliaris (Phillips and Ouliaris, 1990) tests are employed. First of all, order of indegration of variables is determined by employing three different unit root tests - Augmented Dickey Fuller (hereafter ADF, Dickey and Fuller, 1981), the Phillips-Perron (hereafter PP, Phillips and Perron, 1988), and Kwiatkowski-Phillips-Schmidt-Shin (hereafter KPSS, Kwiatkowski et al., 1992). Note that ADF and PP tests the null hypothesis of "there is unit root problem". In contrary, the null hypothesis is "series are stationary" in KPSS.

4. EMPIRICAL RESULTS

Empirical output of the research should start with defining the break dates as this takes the biggest role in the research hypothesis. Results of various breakpoint tests are presented in table 2. Tests altogether identify only 2009Q3 as the break date. Therefore, the period before-and-after 2009Q3 is taken separately as the adopted methodology.

Table 2: Breakpoint test results

	Number of breaks	F-statistic	Scaled F-statistic	Break date	
				Sequential	Repartition
Bai-Perron tests of L+1 vs. L sequentially determined breaks	0 vs. 1*	13.672	95.703	2009Q3	2009Q3
	1 vs. 2	2.029	14.206		
Bai tests of breaks in all recursively determined partitions	0 vs. 1*	13.672	95.703	2009Q3	2009Q3
	1 vs. 2	2.029	14.206		
*Quandt-Andrews unknown breakpoint test***					
	Value		Prob.		
Maximum LR F-statistic	13.672		0.0000	2009Q3	
Maximum Wald F-statistic	95.703		0.0000	2009Q3	
Chow Breakpoint Test: 2009Q3					
F-statistic	13.672		0.0000	2009Q3	

*Note: * Significant at the 0.05 level; Bai-Perron (2003) critical values are used; Trimming 0.15, Max. breaks 5, Sig. level 0.05; ** Probabilities calculated using Hansen's (1997) method; Trimming 0.15.*

Due to estimation of different models, existence of unit root in series for 2000Q1-2009Q3 and 2009Q3-2018Q1 periods is also examined separately. For the first period, PP and KPSS find all variables I(1) without trend while ADF is inconclusive for oprn. When trend is included, ADF finds oprc stattionary at level and others I(1). Despite of small confusion, it is possible to conclude that all variables are I(1) for the first period.

Table 3: The unit root tests results

	Variable	The ADF test			The PP test			The KPSS test	
		Level	**k**	**First difference**	**k**	**Level**	**First difference**	**Level**	**First difference**
					2000Q1-2009Q3				
Intercept	*GDP*	1.793	3	-10.45***	2	-1.931	-12.938***	0.698**	0.228
	BE	1.885	3	-7.477***	2	-1.666	-20.777***	0.644**	0.161
	Nt_rev	-1.236	0	-6.360***	0	-1.160	-6.416***	0.631**	0.107
	Oprc	-1.229	2	-4.573***	3	-1.306	-5.925***	0.618**	0.174
	Oprn	0.528	0	-1.187	4	0.829	-5.229***	0.674**	0.287
Trend and intercept	*GDP*	-0.189	3	-11.12***	2	-4.54***	-13.829***	0.153**	0.218***
	BE	-0.988	3	-4.603***	4	-3.868**	-21.689***	0.185**	0.157**
	Nt_rev	-1.961	0	-6.294***	0	-1.961	-6.345***	0.104	0.104
	Oprc	-4.11**	1	-4.435***	4	-2.245	-5.696***	0.096	0.173**
	Oprn	-1.735	0	-6.000***	1	-1.593	-7.261***	0.174**	0.263***
					2009Q3-2018Q1				
Intercept	*GDP*	-1.953	4	-3.169**	3	-4.27***	-17.308***	0.698**	0.248
	BE	-1.495	3	-9.464***	2	-5.85***	-21.562***	0.227	0.182
	Nt_rev	-2.391	4	-9.451***	2	-6.25***	-30.841***	0.409*	0.304
	Oprc	-1.021	0	-4.598***	0	-1.230	-4.598***	0.368*	0.213
	Oprn	-1.041	0	-6.071***	0	-0.934	-6.134***	0.633**	0.115
Trend and intercept	*GDP*	-2.249	4	-11.79***	2	-5.41***	-18.404***	0.124*	0.146**
	BE	-1.945	3	-9.632***	2	-5.92***	-21.532***	0.171**	0.127*
	Nt_rev	-2.345	4	-9.233***	2	-6.68***	-30.093***	0.099	0.175**
	Oprc	-1.896	0	-4.524***	0	-1.978	-4.5241***	0.146**	0.157**
	Oprn	-2.201	0	-5.956***	0	-2.259	-6.0057***	0.129*	0.095

*Notes: ADF, PP and KPSS denote the Augmented Dickey-Fuller, Phillips-Perron and Kwiatkowski-Phillips-Schmidt-Shin tests respectively. Maximum lag order is set to 4 and optimal lag order (k) is selected based on Schwarz criterion in the ADF test; ***, ** and * indicate rejection of the null hypotheses at the 1%, 5% and 10% significance levels respectively; The critical values are taken from MacKinnon (1996) and Kwiatkowski-Phillips-Schmidt-Shin (1992) for the ADF, PP and KPSS tests respectively.*

For the second period, alternative unit root test results creates some level of confusion. According to ADF test results, all variables are I(1) regardless the trend factor. PP test concludes that *GDP*, *BE*, and *Nt_rev* are stationary at level. Considering KPSS results, only *BE* is stationary at level when trend is not included. It is possible to take ADF results for the upcoming empirical stages. However, employing ARDLBT approach which allows also to work with combination of I(0) and I(1) series will remove any doubtness over the results due to order of integration confusion. Next stage in the empirical estimation process is to test for existence of cointegration or long-run association among the variables. Table 4 tabulates Engle-Granger and Phillips-Ouliaris cointegration test results for FMOLS, DOLS, and CCR as well as bounds test outcomes for ARDLBT.

Table 4: Results of the cointegration tests

	Engle-Granger Cointegration test		**Phillips-Ouliaris Cointegration test**	
	Tau-statistic	*z-statistic*	*Tau-statistic*	*z-statistic*
		2000Q1-2009Q3		
FMOLS	-7.682 ***	-46.427 ***	-7.666 ***	-49.443***
DOLS	-7.682 ***	-46.427 ***	-7.666 ***	-49.443***
CCR	-7.682 ***	-46.427 ***	-7.666 ***	-49.443***
		2009Q3-2018Q1		
FMOLS	-4.662 *	-26.145*	-4.712*	-25.307*
DOLS	-4.662 *	-26.145*	-4.712*	-25.307*
CCR	-4.662 *	-26.145*	-4.712*	-25.307*

F-bounds test for ARDLBT

The sample F-statistic	Sig. level	Pesaran et al. (2001) critical values ($n = 1000, k = 4$)		Narayan (2005) critical values ($n = 35, k = 4$)	
		Low bound	Upper bound	Low bound	Upper bound
2000Q1-2009Q3: F_W = 8.0838	1%	3.29	4.37	4.09	5.53
	5%	2.56	3.49	2.95	4.09
2009Q3-2018Q1: F_W = 10.6435	10%	2.2	3.09	2.46	3.46

*Notes: Null hypothesis for both tests is: variables are not cointegrated; ***, ** and * indicate significance of the coefficients at 1%, 5% and 10% significance level respectively; Optimal lag length is selected based on the Schwarz criterion taking 4 lags as a maximum; p-values are MacKinnon (1996) p-values for tau-statistic.*

Both employed cointegration tests provide strong evidence about existence of long-run relationship in the estimated models by FMOLS, DOLS and CCR for the first period. Confidence level is always greater than 99% in all cases. Nevertheless, test results indicate weak cointegration for the models of the second period. Null hypothesis of "*no cointegration*" is rejected only at 10% level of significance. Because confidence level is greater than 90%, it is possible to decide that cointegration also exists in the models by FMOSL, DOLS and CCR for the second period. For ARDLBT, estimated F-statistic value is greater than both Pesaran et al. (2001) and Narayan (2005) critical values at 1% significance level. This means cointegration exists in the estimated model by ARDLBT for both period. Therefore, we can proceed with interpretation of long-run equations which are tabulated in Table 5. Note that residual diagnostics are checked in all estimated models. Residuals are not serially correlated and homoscedasticity assumption is maintained. Meanwhile, there is no functional form misspecification problem. Results of all cointegration methods supports the research hypothesis that there is sharp fall in fiscal policy effectiveness after the launch of massive direct transfers from SOFAZ. Thus, findings reveal that the impact of budget expenditures over non-oil economic growth has been substantially large in the first period compared to after 2009Q3. According to empirical results, 1% increase in the volume of total budget expenditures has triggered economic growth during 2000Q1-2009Q3 by 0.77-1.13%, in average, holding other factors fixed, which all are statistically ($p\ value < 0.01$) and economically significant. Compared to the first period, the impact of 1% increase in the second period has been just around 0.16-0.19%, neither economically, nor statistically significant ($p\ value > 0.10$). Only FMOLS result display weak significance ($0.05 < p\ value < 0.10$).

Table 5: long-run equations

Independent variables	FMOLS		DOLS		CCR		ARDLBT	
	1st period	*2nd period*	*1st period*	*2nd period*	*1st period*	*2nd period*	*1st period*	*2nd period*
log(BE)	0.777***	0.166*	1.127***	0.169	0.825***	0.169	0.797***	0.185
log(nt_rev)	-0.026	0.243	-0.129	0.595*	-0.053	0.332	-0.127	1.11***
log($oprc$)	-0.108	-0.012	-0.182*	-0.063	-0.107	-0.026	0.022	-0.078
log($oprn$)	-0.38***	-1.13***	-0.714***	-0.770**	-0.42***	-1.029***	-0.41***	0.261
C	5.249***	12.86***	6.005***	8.299***	5.337***	11.62***	5.471***	1.001
@seas(1)	-0.040	-0.19***	-0.199***	-0.26***	-0.035	-0.184***	-0.25***	-0.20***
@seas(4)	-0.095*	-0.016	0.197***	-0.042	-0.104*	-0.024***	0.032	-0.054
Sample (adjusted)	*2000Q2 - 2009Q3*	*2009Q3 - 2018Q1*	*2000Q2 - 2009Q3*	*2009Q3 - 2018Q1*	*2000Q2 - 2009Q3*	*2009Q3 - 2018Q1*	*2000Q4- 2009Q3*	*2009Q3- 2018Q1*
No. of observ.	*38*	*35*	*38*	*35*	*38*	*35*	*36*	*35*
R-squared	*0.892*	*0.858*	*0.968*	*0.892*	*0.890*	*0.844*	*0.944*	*0.949*

*Note: ***, ** and * indicate significance of the coefficients at 1%, 5% and 10% significance level respectively;*

Considering revenue related channel of fiscal policy, the coefficient of *nt_rev* allows to have an idea. Logically and theoretically, the impact should be negative in the context of tax multiplier issue. For the first period, the impact is always found to be negative as expected, but statistically insignificant ($p\ value > 0.10$). However, for the second period, results reveal "positive" causality from between non-transfer budget revenues to non-oil economic growth. Clearly, this outcome is due to large share of oil sector in generation of non-transfer budget revenues (see Musayev and Aliyev, 2017). Meanwhile, large tax concessions are applied to specific sector of the non-oil sector, for example, agriculture (see Aliyev and Gasimov, 2017) In other words, tax channel has not played a substantial discouraging role in the second period.

5. CONCLUSION

Fiscal policy implementation in Azerbaijan is strongly linked to the performance of natural resource sector. Share of oil related revenues in the state budget is substantially large. Especially, there is sharp increase in amount of direct transfers from SOFAZ to the state budget after 2008. In this context, the article investigates Azerbaijan's fiscal policy effectiveness and attempts to reveal how the increase in amount of direct transfers affected effectiveness of budget expenditures in terms of stimulating non-oil sector growth over 2000Q1-2018Q1. Because employed break point test results indicate existence of break at 2009Q3, before-and-after the break date is considered separately by employing 4 cointegration techniques: FMOLS, DOLS, CCR, and ARDLBT. Results from all used methods support each other and show the large fall in fiscal policy effectiveness after 2009Q3 compared to previous period. It is found that the impact of public expenditures over non-oil economic growth in Azerbaijan has been

economically and statistically significant within the first (2000Q1-2009Q3) period while neither statistically nor economically significant after 2009Q3, in average. More precisely, long-run response of non-oil sector growth to 1% increase in amount of total budget expenditures is 0.77-1.13% within the first period while it is just around 0.16-0.19% in the second one. The change is substantially large. What is the major reason? Note that the impact of oil price fluctuations and production amount is considered and these indicators are included to the model as control variables. Therefore, "Dutch Disease" effect should not be an influential factor behind fiscal policy effectiveness change. Reminding institutional effects of resource abundance, the major can be the fall in governance quality which was triggered by direct transfers of "easy gained revenues" from SOFAZ to the state budget, in other words, curse of transfers. The research makes very strong contribution to the existing literature with its new approach to analyse fiscal policy effectiveness in Azerbaijan. Policy officials and responsible institutions should carefully analyse expected effectiveness of public spending while preparing budget proposals and determining volume of direct transfers from SOFAZ for the next year.

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A GLANCE THROUGH TWO DECADES OF SLOVENE-RELATED RESEARCH IN AUDITING

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ABSTRACT

Research in auditing is "on the rise". Globally research papers related to auditing in top-tier scholarly journals have been growing rapidly from nineties onwards. This paper presents an overview of the existing papers in the field of auditing in relation to Slovenia since auditing has started in Slovenia in 1993 and nothing is known about research related to auditing, its profession and auditing practices in Slovenia. Our overview focuses on any Slovene-related studies in auditing published in journals either in English or Slovene language in period 1993–2018. It seems as from 1993 up to 2010 there existed a "research vacuum" in the field of auditing in relation to Slovenia. There is practically no research papers. Reasons for such a state can only be estimated, i.e. data unavailability, unwillingness to participate in studies, lack of research funding etc. But afterwards from 2011 until 2018 there has been a "(little) boom" in amount of research papers (totally 13 papers) which do contribute to the auditing literature. We discuss some obstacles and limitations and other reasons for this state-of-the-art in the field of Slovene-related research in auditing. Since the existing body of Slovene-related auditing research is not large and varied it can be concluded that a large plethora of research questions are and remain unanswered. These are relevant questions. Some areas where research can provide additional information and add to our knowledge of auditing in Slovenia are listed and some possible future directions of research are given. This overview of existing research is of interest to researchers, especially prospective doctoral students in the field of auditing in relation to Slovenia.

Keywords: *auditing, literature review, research, Slovenia, studies*

1. INTRODUCTION

Scholarly research related to financial statements audits is relatively new (Simunic and Wu, 2009). Globally amount of research papers related to auditing in top-tier scholarly journals has been growing rapidly from nineties onwards (Simunic and Wu, 2009). From 2000 onwards the amount and quality of publication of auditing related research papers has been (dramatically) accelerating year by year (Maijoor and Vanstraelen, 2012; Simnett et al., 2016). Beside unique characteristics and complexities that auditing has (see Simunic and Wu, 2009, for more detailed explanation) for growth in auditing research there exists various reasons: more data availability related to auditing, audit-related market changes, audit-related new technologies and nevertheless additional (renewed) interest in auditing from various stakeholders. In can also be speculated that reasons for growth in auditing-related research are also: availability of practically unlimited computational power, establishment of new scholarly journals, especial growth in number of new specialized journals in the auditing field, and existence of publishing

requirement for doctoral students in the field of auditing and for university professor tenure. Research papers are usually dealing with various economic issues such as auditing market or its segments, audit pricing, audit quality, litigation against auditors, audit practices and also corporate governance and earnings management in relation to auditing. In last few years there has been a number of various literature review papers. Lesage and Wechtler (2012) provided a global overview of auditing research up to 2012. They conducted a content analysis of more than 3 thousand abstracts of auditing research papers from 25 top-tier scholarly journals. They confirm that auditing research is "on the rise". Furthermore, in the last decade there were various research papers that give in-depth view of state-of-the-art in specific auditing-related field, i.e. research in the field audit quality (Knechel et al., 2013), audit reporting model (Mock et al., 2013), going-concern reporting (Carson et al., 2013), audit fee/pricing (Hay, 2017), auditing at the partner level (Lennox and Wu, 2018), auditors' professional skepticism and judgement (Hurtt et al., 2013, Nelson and Tan, 2005), archival auditing research (DeFond and Zhang, 2014). These review papers usually not only give an overview of previous research but also suggest future research opportunities. Possible research directions are also given in papers such as Simnett et al. (2016), Sunderland and Trompeter (2017), Olsen and Gold (2018), Gepp et al. (2018); especially for countries in EU region in Schilder (1996), Maijoor and Vanstraelen (2012). All these lists are not exhaustive. These literature review papers provide a useful global overview of the development of auditing research and specifically in its various related fields, but nothing is known about research related to auditing in Slovenia and its environment. Auditing has started is Slovenia in 1993 and there exist no knowledge about how auditing research has developed and evolved since then in Slovenia. The purpose of this paper is to provide overview perspective of Slovene-related auditing research from 1993 up to 2018. We will shortly overview auditing research over the last two decades in relation to auditing, its profession and auditing practices in Slovenia. We shortly review Slovene-related auditing research from various international scholarly and domestic journals either in English or Slovene language. The remainder of this paper is organized as follows. We start with a glimpse of historical development of auditing in Slovenia and its current state accompanied with some statistical figures. Then we in tabular form shortly present papers that have appeared in various journals and deal with Slovene-related auditing issues. This is followed with discussion including listing of examples of obstacles and limitations for researchers. We conclude with some possible future directions of auditing research in relation to Slovenia.

2. A GLIMPSE OF THE STATE OF AUDITING IN SLOVENIA

Slovenia declared its independence in 1991. Afterwards in 1993 Companies Act was passed which required mandatory auditing of financial statements at least for large and medium-sized companies. Following adoption of Companies Act was the passage of Auditing Act in the same year. Auditing Act laid ground structure and system rules and principles of Slovenian auditing profession. These events mark the start of (modern) auditing in Slovenia and therefore logically auditing (in current form) and auditing profession has a relatively short tradition in Slovenia (Zaman et al., 2017). Before these events there was no (modern) auditing (but note: according to Turk (2009) there was another form of auditing before 1993). In accordance with first Auditing Act principal "guardian" of auditing profession and its development was given to the Slovenian Institute of Auditors (www.si-revizija.si). The Institute did not prepare special national auditing pronouncements, i.e. national auditing standards. Instead IFAC's International Standards on Auditing (ISA) were enforced and are translated in Slovene language. These later became obligatory under EU pronouncements; Slovenia became European Union (EU) member country in 2004. Since auditing was "new" in Slovenia in 1993 there was no (certified) auditors. Since then the Institute prepares and maintains educational program for training and examination of certified auditors.

The Institute also licenses certified auditors and sets necessary requirements to maintain active license. One of main requirements is continuing professional education of certified auditors. To state bluntly first Auditing Act did not require any public oversight of auditing profession. Amendment of Auditing Act in 2001 changed this and a form of peer-to-peer review was introduced under the supervision of the Slovenian Institute of Auditors. Later in 2008 this form of supervision was abandoned with amendment of Auditing Act that enforced establishment of states' Agency for Public Oversight of Auditing (www.anr.si) in 2009. Reason for amending Auditing Act was in recent changes of EU pronouncement. Since 2009 the Agency has to carry out public supervision over the quality of audit services (Zaman and Valentinčič, 2011). Since 1993 until 2018 audit market has changed considerably. To give some statistics. Currently there is around 50 audit firms (51 on cutoff date 31st December 2017); number of audit firms was constantly slowly raising until around 2010. Audit firms together employ 465 people. There is around 140 active certified auditors (183 active and inactive certified auditors on cutoff date 31st December 2017). Currently is size of audit firms' revenues in Slovenian audit market around 29 million EUR (according to data for year 2016); the highest was in 2009 at 37 million EUR but since then revenues are slowly declining. Two thirds of audit firms' revenues are from (mandatory) financial statements auditing. Ten largest audit firms make around three quarters of all revenues. They also employ around three quarters of all personnel working in auditing sector; but only around 44 percent of active certified auditors. Brief overview of historical development and state of auditing and statistics in relation to auditing give some insight but do not reveal much of auditing, its environment and auditing practices in Slovenia. Auditing research related to Slovenia would give more in depth knowledge and understanding. Therefore we conduct a search for Slovene-related research in auditing.

3. SLOVENE-RELATED RESEARCH IN AUDITING

Our overview focuses on any Slovene-related studies in auditing published in (mostly) scholarly journals in English and Slovene language. Our method of identifying research is the following. Overview of scholarly journals includes overview of top-tier journals in the fields that are related to accounting and auditing. We use web-based search engines among various databases that usually include English-only language entries (i.e. metaiskalnik.izum.si, using the following combination of key words for search: audit* AND Slovenia*). Since our decision was to conduct a wider range overview we also include overview of studies published in Slovene language in various local journals. These journals are not included in before mentioned databases and therefore not reachable with the use web-based search engines. Our overview includes following journals in Slovene language: Revizor, Journal of auditing (published jointly by: Slovene Institute of Auditors and Association of Accountants, Treasurers and Auditors of Slovenia, 1990–2012); SIR*IUS, Journal for the theory and practice of auditing, accounting, taxation, finance, valuation, and other related fields (www.si-revizija.si/publikacije/revija-sirius; published by: Slovene Institute of Auditors, from 2013 onwards, superseded journal Revizor); and IKS, Journal for accounting, taxation and finance (www.revijaiks.si; published by: Association of Accountants, Treasurers and Auditors of Slovenia; from 1974 onwards). Since first Auditing act in Slovenia was in 1993 our time span was set between 1993 and 2018. Our search for Slovene-related research in auditing is comprehensive. We focus our overview on studies of public accounting profession and external auditing in relation to Slovenia; research papers in related fields of audit committee (i.e. Zaman and Valentinčič, 2011), tax audit (i.e. Jagrič and Lešnik, 2017) and state audit are excluded. Robustness of our search was confirmed with additional search for auditing-related research papers through bibliography among reputable Slovenian authors in the field of auditing, mostly university professors of accounting and auditing (that is University of Ljubljana and University of Maribor). Slovenia is a small country (see various data here); in the specific field researchers and authors are usually well

known. For search among professors we used specialized web-based search engine SICRIS (Slovenian current research information system, www.sicris.si) to retrieve personal bibliographies. For other authors we used general librarian web-based search engine COBISS (www.cobiss.si). Nevertheless we have to add that our search did not include any papers, presentations and proceedings from various local conferences, symposiums, meetings and other form of gatherings. We assume that research papers of sufficient quality first presented at conferences etc. have been later published as papers in any of before mentioned journals. And furthermore, our overview presentation does not encompass various students' theses (i.e. masters' degree thesis and bachelors' diplomas). Since around 2005 in Slovenia students' theses/diplomas are usually publicly available via online university's repositories (i.e. Digital library of University of Maribor, dk.um.si, and The Repository of the University of Ljubljana, repozitorij.uni-lj.si) but are in our overview considered as unpublished research. We assume that any students' thesis of sufficient quality has been later published as paper in any of before mentioned journals. Our search did not reveal and to the best of our knowledge there has not been insofar any doctoral dissertation thesis in the field of auditing (and especially in relation to auditing in Slovenia). As shown in Table 1 (publications are distributed by language and by year) the last five years has witnessed a steep upwards in the number of Slovene-related studies in auditing (from 1 publication by the end of 2011 to total of 13 by November 2018). Panel A of Table 1 shows 6 studies are published in English language in 5 journals; panel B of Table 1 shows 7 studies are published in Slovene language in 3 journals.

Table following on the next page

Table 1: Slovene-related research in auditing (1993–2018; source: own research data)

Year	Published research with short abstract	Journal	Theme
A.	**Published research in English language***		
1	2015	*Zdolšek et al. (2015).* *Study of possibility of forecasting qualification of auditors' reports in relation to the circumstances in the company's economic situation that lead to the qualification.*	*Economic Research-Ekonomska Istraživanja***	*Forecasting model, qualified report*
2	2015	*Slapničar et al. (2015).* *Study using between-subject experiment for exploring effectiveness of oversight on selected determinants of auditor's biased opinion.*	*Economic and Business Review*	*Bias, financial incentives, personal relationship*
3	2016	*Zaman and Salihović (2016).* *Study of audit market concentration for period 2008–2011 in segments of listed and non-listed large auditees. (Study is based on Salihović and Zaman (2015), published in Slovene language.)*	*East-West Journal of Economics and Business*	*Audit market, concentration*
4	2017	*Zaman et al. (2017).* *Study of the effect of the financial crisis on audit fees in the audit market for the large segment of non-listed companies.*	*Economic Research-Ekonomska Istraživanja***	*Audit fees, panel model, financial crisis*
5	2017	*Štager and Odar (2017).* *Study on audit fees data about possible existence of various audit market segments in relation to size of audit company. (Study is based on Čokelc and Štager (2016), published in Slovene language.)*	*Journal of Global Economics*	*Audit fees*
6	2018	*Štager (2018).* *Study on audit fees data for period 2008–2014 about their in- or decrease and possibility of (permanent) existence lowballing effect. (Study is based on Čokelc and Štager (2016), published in Slovene language.)*	*Scientific Annals of Economics and Business*	*Audit fees*
		Total number: ***6***		
B.		**Published research in (only) Slovene language**		
1	2011	*Skitek (2011).* *Study of audit fees at initial audit engagements (on sample from period 2003–2005).*	*Revizor*	*Audit fees, initial audits*
2	2014	*Pikelj and Slapničar (2014).* *Study of audit reports for auditor's signal of going-concern doubt on sample of distressed companies in period 2009–2013.*	*Bančni vestnik*	*Qualified report, going-concern opinion*
3	2015	*Salihović and Zaman (2015).* *Study of audit market concentration for period 2008–2011 in segments of listed and non-listed large auditees.*	*SIR*IUS*	*Audit market, concentration*
4	2016	*Čokelc and Štager (2016).* *Study on audit fees data for period 2008–2014 about their in- or decrease and possibility of (permanent) existence lowballing effect.*	*SIR*IUS*	*Audit fees*
5	2016	*Vrtačnik and Zaman (2016).* *Study of audit fee determinants at initial audit engagements (on sample of large auditees from period 2011–2013).*	*SIR*IUS*	*Audit fees, initial audits*
6	2018	*Črepinšek and Zaman (2018).* *Study of audit tenure length as possible determinant of auditors' report qualification (on sample of large auditees in 2014).*	*SIR*IUS*	*Audit tenure, auditor's opinion*
7	2018	*Čokelc and Štager (2018).* *Survey collected data based study of perception of auditees about the quality of financial statements audit and possible determinants of audit quality.*	*SIR*IUS*	*Audit quality, determinants*
		Total number: ***7***		

*Notes: * – Excluded from Slovene-related auditing research is paper of Zdolšek and Jagrič (2011) because it is not related to Slovenia. Their research is based on data from UK and Ireland.*

*** – Journal with impact factor (according to Journal Citation Reports, Clarivate Analytics).*
Source: own research data (cutoff date: 3rd of December 2018).

As shown by this overview (see Table 1), the existing body of Slovene-related auditing research is not large and varied. Until 2011 there has not been any published papers; it seems as from first Auditing act in 1993 up to 2010 there existed "research vacuum" in the field of auditing in relation to Slovenia. It could be concluded that there exists no written facts/knowledge about the auditing and auditing profession in Slovenia for this time period. Reasons for this state of vacuum can only be estimated. To conduct a research in the field of auditing, researcher has to deal with some common research problems such as unavailability of data (in relation to auditing). Researcher has no access or has only limited access to data in relation to audits and auditing that are possessed by audit firms, auditors and/or regulator (i.e. oversight agency). Even if access is made possible usually audit firms, auditors and/or regulator characterize all data in relation to audits and auditing as sensitive data and therefore do is not allow their disclosure (i.e. even in abbreviated form). Second, correlated with data (un)availability is willingness of audit firms and/or auditors to participate in research. They are usually averse to participate in a study. For researcher this is a problem considering that Slovenia has currently (only) around 50 audit firms and around 140 active (certified) auditors; numbers were even lower in the past. Third, for a researcher there is "always-present" problem of research funding. Usually in the field of auditing there is none, which leaves researcher with a problem of how to conduct research with no funding or with very limited funding. These were and are a few reasons why there is only merely a handful of research in the field of auditing in Slovenia. The list is not comprehensive. Additional reasons can be only be speculated as for example the following: gap in awareness of problem issues in auditing, methodological issues, including lack of capabilities to tackle with them etc. As already pointed out, there is not any doctoral dissertation thesis in the field of auditing in relation to Slovenia. The field of auditing urgently needs at least few doctoral students who will cope with auditing-related research and publish their papers. Nevertheless this problem is not only present in Slovenia but also in many other (larger) countries (i.e. see Plumlee et al., 2006; Fogarty and Holder, 2012; Plumlee and Reckers, 2014; Boyle et al., 2015). Lack of auditing-related research can also be attributed to the state in Slovenia where until around 2005 there has not been any need for university professors to publish in (non-domestic) top-tier scholarly journals in Slovenia. There was no incentive therefore logically there does not exists any published paper. Additionally, researcher from Slovenia (or any other country) is possibly also struggling with the following issue: why publish ones paper in English language in "foreign" (non-local) journal, usually not widely available to local public. Researcher's struggle can be summed up in next phrase: "what good will it come from publishing in non-local journal" … Nevertheless since 2006 onwards for "newcomers" criteria for achievement of professor position are raising, including with requirement to publish in top-tier scholarly journals. Struggling or not to achieve professor position publishing papers in top-tier is necessary for "newcomers". After 2011 until 2018 there has been a "(little) boom" in Slovene-related research in auditing (see Table 1). In our opinion these group of initial research papers have a (latent) main purpose to increase our knowledge about the auditing and auditing profession in Slovenia. Nevertheless first research papers do contribute to the auditing literature. Slovenian auditing environment, its institutional factors and evolving audit market is an environment where variety of various topics are waiting to be addressed. A variety of topics and issues raised in various research papers (i.e. see Maijoor and Vanstraelen, 2012; DeFond and Zhang, 2014; Simnett et al., 2016; Sunderland and Trompeter, 2017; and other research papers in this papers' bibliography) have not yet been addressed. To add, almost all published studies are archival studies, except for Slapničar et al. (2015) and Čokelc and Štager (2018). In general researchers of Slovene-related auditing issues have not used methodologies such as questionnaire surveys (except for Čokelc and Štager, 2018), behavioral experimental studies (except for Slapničar et al., 2015) and analytical modeling studies. Use of these methodologies is (urgently) warranted.

4. DISCUSSION AND CONCLUSION

While globally in last few years there has been a number of various literature review papers of auditing research there is nothing known about research related to auditing in Slovenia and its environment. Therefore the purpose of this paper is to provide overview of Slovene-related auditing research papers from various international scholarly and domestic journals published either in English or Slovene language in period from 1993 up to 2018. Our overview reveals there until 2011 was a "research vacuum" in the field of auditing in relation to Slovenia. There has not been any published papers. After 2011 there has been a "(little) boom". Number of published research papers has increased from 1 publication by the end of 2011 to total of 13 by November 2018 in ether English (6 studies) or Slovene language (7 studies). Nevertheless we can conclude that number of Slovene-related auditing research is not large. Almost all published studies are archival auditing studies; auditing research that is qualitative in nature is practically unaddressed. This paper further gives some examples of obstacles and limitations for researchers, i.e. data unavailability, unwillingness of various stakeholders to participate in studies, lack of research funding etc. Additional purpose of this paper is also to point out some possible research opportunities in auditing in relation to Slovenia. Research papers can help advance our knowledge about auditing and can be informative for public policy debates (Maijoor and Vanstraelen, 2012). But caution is needed because lack of empirical evidence should preclude conclusions reached without data to support them. Globally auditing research studies provide various outcomes and findings. But researchers, regulators and practitioners need to exercise caution when interpreting the conclusions of extant studies (Lennox and Wu, 2018). This is especially true when interpreting conclusions reached on a data for a large country (i.e. USA) to a small country (i.e. Slovenia). Therefore Slovene-related studies in auditing must have a general need to make meaningful contributions to the existing literature in the field. Studies can encompass various research questions that in relation to auditing in Slovenia have never been tested but are warranted. In example in the following areas: audit quality, audit market and its concentration, audit pricing, demand, audit firm practices and governance, segmentation and differentiation at various levels, auditor partner practices, education and skills etc., employee turnover problems and public oversight of auditing. This list is not exhaustive. Researchers can cope with research questions in various other fields that are relation to auditing in Slovenia. Any additional research can help advance our knowledge and provide at least some information. We hope this short overview will build awareness of the challenges in undertaking research in relation to auditing in Slovenia and help researchers coping with such research. We aim to start and encourage an upwards trend of Slovene-related auditing research.

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DO RESEARCH AND INNOVATION STIMULI IMPROVE THE COMPETITIVENESS OF PRIVATE FIRMS? EVIDENCE FROM THE SLOVAK REPUBLIC

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ABSTRACT

The paper analyses financial indicators of 550 R&I-intensive Slovak firms receiving support from the European Structural and Cohesion Funds (SF and CF) in the period 2009–2014. The research tests the hypothesis that assistance from the SF and CF improves economic performance of the supported firms. The research combines data from public and private resources. It applies the Difference-in-Differences evaluation method with the Propensity Score Matching (PSM) technique. The PSM technique was used to create comparable structures of the treatment and control groups. The selection of performance variables reflected their economic importance and data availability. The most important variables included sales, gross operating surplus (profit), total assets, and own capital. Development in financial indicators for supported/unsupported firms between the periods 2012–2014 and 2009–2011 was compared via the t-test. Results of the evaluation indicated that enterprises receiving support from the European resources accounted for better financial results than those of enterprises receiving no support from the SF and CF. The increase in sales in the period 2012–2014 compared to the period 2009–2011 was the most important indicator of improved competitiveness. Sales accounted for the best availability of data. Sales are also a more realistic indicator than profits in the annual accounts of the Slovak companies. Profits are more prone to manipulation in the enterprise accounts. The evaluation exercise was commissioned by the Government Office of the Slovak Republic. Results of the evaluation exercises were transferred to policy recommendations for the 2014–2020 programming period. Firms applying for support from the national public and/or European resources must provide good-quality data on their past R&I spending and financial performance. As to compare the performance of supported and unsupported firms, data on sales and employment seem to be more useful than data on profits, as well as the return on assets and equity.

Keywords: *European Structural and Cohesion Funds, Research and Innovation, Firm Performance*

1. INTRODUCTION

1.1. The case for public support to research and innovation

There are many barriers to research and innovation (R&I) in the private sector. There is substantial uncertainty about future trends in technology and product development. Many firms lack clear awareness with respect to the importance of R&I for long-term competitiveness and profitability. Some firms understand the importance of R&I but have to cope with short-term problems such as genuine credit constraints and/or sudden changes in business cycles. The state can address the abovementioned market failures in many ways. The EU member countries design and apply hundreds of support measures for support to R&I. The vast majority of the support measures take the form of financial support. There are two major forms of financial support to R&I: (a) direct support (grants, subsidies) and (b) indirect support (tax deductions and tax breaks). The ultimate goal of the public assistance to R&I is to improve the competitiveness of companies. Such competitiveness, in turn, is reflected in the improved financial performance of supported firms (i.e. increase in sales and profitability). The national system of innovation of the Slovak Republic accounts for moderate levels of development (Baláž, Frank and Ojala, 2018). The Slovak policymakers used assistance from the European resources to improve R&I performance of the Slovak businesses. The Slovak businesses considerably benefitted from the European Structural and Cohesion Funds (SF and CF). The support was provided under three Operational Programmes: the Operational Programme Research and Development (OPRD), the Operational Programme Competitiveness and Economic Growth (OPCEG) and the Operational Programme Bratislava Region (OPBR). Total support to R&D and innovation-related activities amounted to €427.53m in the period 2007–2015. Did the European assistance improve the competitiveness of supported firms? If yes, what indicators accounted for major improvements? This paper analyses the financial indicators of 550 R&I-intensive Slovak firms receiving support from the SF and CF in the period 2009–2014. It applies the Difference-in-Differences evaluation method with the Propensity Score Matching technique. It combines data from public and private resources. The evaluation exercise was commissioned by the Government Office of the Slovak Republic. Results of the evaluation exercise were transferred to policy recommendations for the 2014–2020 programming period.

1.2. Evidence from evaluation of public policies in research and innovation

There is rich evaluation literature on the effects of public support on R&I, as well as research and development (R&D). The literature is used to focus on synergies between the public and private resources for R&D. Some literature also deals with the effects of public support on performance by private businesses, such as sales, exports, employment and patents. The traditional stream of evaluation supported the view that public support crowds out private resources and, therefore, is inefficient. Public support, at best, may dissipate in higher R&D wages instead of stimulating real private R&D spending (Lokshin and Mohnen, 2013). Wallsten (2000) evaluated the effects of the US Small Business Innovation Research (SBIR) programme in small enterprises. Small enterprises with more employees and that appeared to conduct more research were more likely to receive an SBIR grant, but the grants did not affect employment. Moreover, the grants crowded out firm-financed R&D spending dollar for dollar. More recent evaluation literature points to the complexity of evaluating the effects of public support to R&D. Zúñiga-Vicente, Alonso-Borrego, Forcadell and Galán (2014) conducted a meta-analysis of 77 evaluations in the USA, Europe and other OECD member countries. Approximately 60% of the studies found that public subsidies are complementary and, thus, 'add' to private R&D investment, 20% found a crowding-out effect, and 20% no significant effect of public support on increases of private funding for R&D. Zúñiga-Vicente pointed to vast differences in methodology of evaluation by particular studies.

Most evaluations used panel data and/or considered short-run effects. Few studies examined long-run effects. There are significant data limitations. Few studies were able to distinguish between total and own expenditure on R&D by firms. Some studies targeted high-tech industries only, while others considered all industries. González and Pazó (2008) used a matching design to test the hypothesis that public support to R&D crowds out private investments (sample: 9,455 Spanish industrial enterprises). Their study indicated the absence of "crowding-out", be it full or partial, between public and private spending. They also found that some firms — mainly small and operating in low-technology sectors — might not have engaged in R&D activities in the absence of subsidies. The firms added public resources to their own resources. Own resources, however, would have been used anyway. Becker's meta-analysis (2015) came to similar conclusions (2014). Clausen (2009) analysed data from the third wave of the Community Innovation Survey (CIS3) in Norway in 1999–2001. He compared 278 supported firms to 741 unsupported firms via instrumental variable regression. Clausen found that "research" subsidies stimulated private R&D activity mainly by increasing research expenditure, while "development" subsidies in comparison substituted private R&D activity mainly by decreasing development expenditure. Czarnitzki and Lopes-Bento (2013) analysed the potential crowding-out effect on a sample of 3,019 projects supported by the public resources in Flanders in 2004–2010. The authors used both econometric methods and detailed discussions with representatives of the public agency administering the innovation policy instruments in Flanders. Czarnitzki and Lopes-Bento (2013) concluded that (i) the support policies were not subject to full crowding-out, (ii) the treatment effects were stable over time, (iii) receiving subsidies from other sources in addition to the programme under evaluation did not decrease the estimated treatment effect, and (iv) repeated reception of grants did not decrease the magnitude of the treatment effects either. Klette and Møen (2011) examined longitudinal data for 192 Norwegian firms in high-tech industries in 1982–1995. Temporary R&D subsidies seemed to stimulate firms to increase their R&D investments even after the grants had expired. The authors explained this effect via the learning-by-doing R&D activities of the supported firms. Supported firms are more willing to invest in R&D in the future as well. The abovementioned meta-analyses and individual evaluations indicate the complex relationship between public support and private spending on R&I. The relationship may reach from synergic effects via simple complementarity to substitution. Effects of the public support to R&I on private R&I spending may differ according to the (a) type of support (grants versus tax incentives), (b) firm size, (c) ownership type (domestic versus foreign owners), (d) type of financial resources, (e) internal structure of R&D spending (research versus development), (f) history of support, and (g) industry type. Data limitations usually do not allow for identifying all relevant factors impacting upon private spending for R&D.

1.3. Identifying causal effects between intervention and behavioural change by target group

The behaviour of economic agents is impacted by the high number of external and internal factors. Identifying causal relationships therefore is no easy task in social and economic science. Quantitative approaches mostly rely on econometric methods such as matching design, instrumental variable regression and/or Granger causality in time series (Imbens and Wooldridge, 2009). The econometric methods aim at establishing and quantifying causal relationships between economic and social policy measures and behavioural change by specific economic and social target groups ('economic agents'). In most cases economic agents are individuals, specific social classes, firms, regions and/or countries. A comparison of two agent groups ('matching') is a classical method for evaluating causal relationships. The treatment group was a target of an intervention (e.g. firms receiving subsidies from the SF and CF), while the control group received no treatment.

There is a rather strong assumption that firms in control and treatment groups do not differ in most important aspects, such as size, industry sector, previous experience with research, etc. Such an assumption sometimes is difficult to prove. Specific industries account for different profit rates, shares of university-educated workers and/or research and innovation intensities.
There is an option to use some statistical techniques, such as Propensity Score Matching (PSM), and match each agent from the treatment group with a 'mirror agent' from the control group (for more details on 'matching design', see Pearl (2009) and Miteva, Pattanayak and Ferraro (2012). The PSM method increases comparability of the treatment and control groups in respect of the observable variables. There, of course, is another strong assumption that different behaviour by treatment and control groups is generated solely by the policy interventions and/or observable variables, and there are no unobservable variables in play.

1.4. Research hypotheses, data sources and research methods

Slovak firms supported by the Structural Funds do not provide data on their past R&I expenditure. It is therefore impossible to tell whether the Structural Fund interventions contributed to an increase in business expenditure on R&I. It is, however, possible to test the hypothesis that assistance from the Structural and Cohesion Funds improved economic performance of the supported firms. Improved competitiveness is the ultimate goal of public support to R&I.

1.5. Data sources, data structure and data cleaning

We accessed the National Strategic Reference Framework database to obtain data on firms and projects receiving support from the SF and CF. We identified some 550 firms receiving support for 589 projects. The R&I-related projects were implemented under the OPCEG 1.1 and 1.3, OPBR 2.1 and OPRD 2.2 and 4.2 Policy Measures. The abovementioned 550 firms formed the treatment group. We compared economic and financial data of the treatment group with data for firms receiving no support (control group). The FinStat database contains annual data on 240,000 companies. The database is managed by a private company. It collects financial data from the public registries. The data include annual accounts and financial statements of all Slovak LTD and PLC-type companies. Historical financial data are not available for the vast majority of Slovak companies. The total database includes a sub-sample of several thousand companies whose annual accounts are available from 2009. The sub-sample partly overlaps with the list of 550 Slovak businesses supported by the OPCEG 1.1 and 1.3, OPBR 2.1 and OPRD 2.2 and 4.2 Policy Measures. We commissioned an extract of the financial data for the control and treatment groups. The total sample had 550 firms in the treatment group. Complete data on all financial indicators, however, were available for a limited number of firms in the FinStat database. Sales accounted for the best coverage, while profit accounted for the weakest one. Complete data on sales were available for 117 enterprises, but complete data on return on equity for 87 firms only (Table 1). The effective size of the treatment group therefore varied between 87 and 117 firms depending on the specific financial indicator. The FinStat database also provided data on 4,645 non-supported firms in the period 2009–2014 (control group). We excluded multinational companies (TESCO, Samsung, Volkswagen, etc.) from the control group so as to eliminate the outliers. We also excluded some other companies with extreme increases/decreases in sales and/or profits (outliers). The final sample of the control group contained 4,551 firms.

1.6. Research methods

We used the Difference-in-Differences method to examine effects of the European resources on economic efficiency of the Slovak businesses. Difference in Differences (DiD) is a statistical technique used in econometrics.

It attempts to mimic an experimental research design using observational study data. It calculates the effect of a treatment (i.e. an explanatory variable or an independent variable) on an outcome (i.e. a response variable or a dependent variable) by comparing the average change over time in the outcome variable for the treatment group to the average change over time for the control group.

2. COMPOSITION OF TREATMENT AND CONTROL GROUPS

The DiD method is based on (i) definition of the appropriate time period, (ii) selection of appropriate variables, and (iii) construction of treatment and control groups.

2.1. Time periods

Two periods were chosen to compare the development of economic efficiency in the treatment and control groups over time: 2009–2011 (pre-test period) and 2012–2014 (post-test period). The first calls for innovation and R&D projects were launched in 2008, but spending was extremely slow. The OPRD 2.2 and 4.2 Policy Measures, for example, accounted for a 9% spending rate by the end of 2011. The period 2009–2011 therefore is considered the period with no or minimal intervention. Each of the two abovementioned periods also captured different phases of the economic cycle: boost (2009 and 2013) and boom (2010, 2011, 2012 and 2014) respectively. The average GDP growth was 0.9% in 2009–2011, whereas it was 1.9% in the 2012–2014 period.

2.2. Performance variables

The selection of variables reflected their economic importance and availability in the FinStat database. The most important variables included sales, gross operating surplus (profit), total assets, and equity (Table 1).

2.3. Construction of treatment and control groups

The PSM method was used to create comparable structures of the treatment and control groups. In the statistical analysis of observational data, PSM is a statistical matching technique that attempts to estimate the effect of a treatment, policy or other intervention. The PSM method attempts to find a 'mirror member' in the control group in relation to each member in the treatment group. PSM attempts to reduce the bias due to confounding variables that could be found in an estimate of the treatment effect obtained from simply comparing outcomes among units that received the treatment versus those that did not. If one, for example, compares firms with and without support from the Structural Funds, the comparison is likely to generate biased results. Firms participating in the Structural Fund schemes are different from the non-participating firms. Participating firms likely have a higher share of the PLC-type companies. They also account for higher sales and profits (so as to pay for elaboration of the project proposal) and have a longer corporate history than that of non-participating firms. The propensity score allows one to design and analyse an observational (nonrandomised) study so that it mimics some of the particular characteristics of a randomised controlled trial. In particular, the propensity score is a balancing score: conditional on the propensity score, the distribution of observed baseline covariates will be similar between treated and untreated subjects (Austin, 2011). In this evaluation firms in the control group should have similar characteristics to those of businesses in the treatment group (i.e. those supported by the OPCEG 1.1 and 1.3, OPBR 2.1 and OPRD 2.2 and 4.2 Policy Measures). The following variables were tested for inclusion in the PSM score[1]:

[1] As to achieve best matching between treatment and control groups the maximal difference between the sample scores („*caliper*") was set to 0.05. For more details on caliper setting see: (Austin, 2011).

- Enterprise size by no. of employees (21 categories)[2];
- Enterprise size by sales, assets and equity;
- Technology intensity of an industry (NACE, two digits)[3];
- Length of doing business in years;
- Indicators of returns on sales and assets (enterprises with higher profitability use to have more resources for R&I activities);
- History of participation in the national programmes of the Research and Development Agency (RDA, binary variable);
- History of participation in the FP7 projects (binary variable);
- History of participation in the SOPIS 1.3 DM a 1.3 SP Policy Measures in the programming period 2006–2008 (binary variable)[4];
- The R&D stimuli awarded in the period 2009–2014.

The selection of factors was impacted by their relevance and also by the data availability. Enterprise history, enterprise size (by number of employees), participation in the RDA projects, some sectoral variables (medium-low-tech manufacturing, medium-high-tech manufacturing, high-tech manufacturing), and average assets in the period 2009–2014 proved to be significant at the 0.05 level.

3. RESULTS OF EVALUATION

Development in financial indicators for supported/unsupported firms between the periods 2012–2014 and 2009–2011 was compared via the *t*-test (Table 1). The increase in sales in the period 2012–2014 compared to the period 2009–2011 was the most important indicator of improved competitiveness. Sales accounted for the best availability of data. Sales are a more realistic indicator than profits in the annual accounts of the Slovak companies. Profits are more prone to manipulation in the enterprise accounts. Average annual sales increased by €748,541 in supported firms but decreased by €8,752,041 in unsupported firms (Table 1). Both supported and unsupported firms reported decreasing profits in the period 2012–2014 compared to the period 2009–2011. Supported firms reported a decrease in average annual profits by €148,529 and unsupported firms by €382,246. Supported firms reported an increase in average annual assets by €799,603, but unsupported firms a decrease by €2,514,745. An increase in assets impacted upon the return on assets (ROA) in supported firms by 9.61% between the periods 2012–2014 and 2009–2011. ROA increased by 6.48% in supported firms. Average annual equity increased by €341,357 in supported firms but decreased by €219,520 in unsupported firms. Average return on equity increased by 12.13% in supported firms but decreased by 40.53% in unsupported firms in the period 2012–2014 compared to the period 2009–2011. An increase in sales, assets and return on assets was significant at the 0.05 level (Table 1). Computations on equity and return on equity must be observed with care. These indicators accounted for high numbers of missing data.

[2] Enterprise sizes by number of employees was coded in following way: (0) = 0 employees, (1) = 1 employee, (2) = 2 employees, (3) = 3-4 employees, (4) = 5-9 employees, (5) = 10-19 employees, (6) = 20-24 employees, (7) = 25-49 employees, (8) = 50-99 employees, (9) = 100-149 employees, (10) 150-200 employees, (11) = 200-249 employees, (12) = 250-499 employees, (13) = 500-999 employees, (14) = 1000-1999 employees, (15) = 2000-2999 employees, (16) =3000-3999 employees, (17) = 4000-4999 employees, (18) 5000-9999 employees, (19) = 10000 – 19999 employees (20) = 20000+ employees.

[3] There are six technology classes of enterprises on the NACE 2-digit level: low-tech manufacturing (NACE 10-18, 31, 32), medium-low tech manufacturing (NACE 19, 22-25, 33), medium-high tech manufacturing (NACE 20, 27-30), high-tech manufacturing (NACE 21 a 26), less knowledge intensive services (NACE 45-47, 49, 52, 53, 55, 56, 68, 77, 79, 81, 82, 94-99) and knowledge intensive services (NACE 50, 51, 58-66, 69-75, 78, 80, 84-93). Source: Eurostat, 2018.

[4] The SOPIS stands for the Sectoral Operational Programme. The SOPIS 1.3 DM Policy Measure supported small (*de minimis*) projects on innovation in 2004-2006. The SOPIS 1.3 SP Policy Measure allocated state aid to the R&I projects.

Table 1: Financial indicators for firms receiving/not receiving support from the SF and CF (authors' computations based on the FinStat database data)

Variable	Firm type	N	Average	Std. deviation	*t* [(a)]	Sig. (2-tailed) [(a)]
Firm history (years)	unsupported	114	17.38	6.410	-0.288	0.773
	supported	117	17.61	5.680	-0.288	0.774
Firm size (21 categories)	unsupported	114	7.30	3.100	-1.498	0.135
	supported	117	7.85	2.523	-1.494	0.137
Increase in sales (€)	unsupported	114	-8,752,041	8,803,249	-10.921	0.000
	supported	117	748,541	3,281,397	-10.814	0.000
Increase in profit (€)	unsupported	101	-382,246	1,469,520	-1.458	0.146
	supported	112	-148,529	804,486	-1.418	0.158
Increase in assets (€)	unsupported	113	-2,514,745	13,947,615	-2.491	0.013
	supported	115	799,603	2,995,757	-2.471	0.015
Increase in equity (€)	unsupported	112	-219,520	7,844,266	-0.720	0.472
	supported	115	341,357	2,830,754	-0.713	0.477
Difference in ROA %	unsupported	97	-40.53	189.17	-2.332	0.021
	supported	107	12.13	130.48	-2.292	0.023
Difference in ROE %	unsupported	87	6.48	60.99	1.369	0.173
	supported	93	-9.62	92.48	1.387	0.167

Source: authors' computations. Notes: (a) the t-values and significance levels are quoted separately for assumptions on equal and unequal variances.

3.1. Limitations of research

The abovementioned computations have some important limitations. Financial data were available for the minority of enterprises in the control and treatment groups. It is impossible to say how the availability of data impacted upon the structure of the control and treatment groups. It can be assumed that the best data were available for medium-sized and large enterprises with a medium-long and long corporate history. Such enterprises likely have better financial results than those of small and/or new businesses in both samples. The PSM results may be biased by hidden variables ('unobservables'). The competitiveness of enterprises may be impacted by a number of factors, such as (1) external factors of sales and costs within specific industries (e.g. prices of inputs), (2) the quality of management in specific businesses, (3) state aid provided to enterprises directly or indirectly (e.g. via re-qualification of employees), (4) the ownership structure and potential for knowledge transfer (domestic versus foreign owners), (5) the position of enterprises within a group of enterprises, (6) the dependence of an enterprise on regional transport infrastructure, and (7) the availability of human resources and other production inputs within a region and/or in international markets.

4. CONCLUSIONS

The results of the evaluation indicated that enterprises receiving support from the European resources accounted for better financial performance than that of enterprises receiving no support from the SF and CF. The evaluation exercise also examined the availability and quality of data. Financial data were collected from external resources and were available for the minority of supported firms. Most Slovak firms try to minimise the tax burden via tax optimisation and/or tax avoidance[5]. Data on sales are much more difficult to manipulate than those on profits. Data on profits and returns on assets and equity therefore should be observed with greater care than those on sales and assets.

[5] Number of firms claiming no tax liability increased by 40,000 (from 52,000 to 92,000) in period 2006-2012. Trend in tax avoidance continued in later years. The FinStat database indicates that no tax liability claimed 52.3% Slovak firms in 2013 and 43.8% in 2014 (total sample 115,501 firms).

Good-quality data are essential for a meaningful evaluation. For some reasons, Slovak R&I-intensive firms applying for assistance from the SF and CF had no obligation to provide data on their past financial performance. The firms also were not asked to provide data on their past R&I spending. The evaluation exercise therefore could not analyse changes in R&I spending after allocation of the European support. The evaluation exercise implied the following policy recommendations:

- Public intervention improved the competitiveness of supported firms.
- Firms applying for support from the national public and/or European resources must provide good-quality data on their past R&I spending and financial performance.
- As to compare the performance of supported versus unsupported firms, data on sales and employment seem to be more useful than data on profits, as well as return on assets and equity.

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IMPACT OF ECONOMIC DIGITIZATION ON THE DEVELOPMENT OF ENTREPRENEURIAL ACTIVITY

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ABSTRACT
This paper reviews development of entrepreneurial activity and investigates government input for creating favourable environment to businesses. Economic development and business environment are the most important factors in explaining entrepreneurial choice. However, we find that government's systematic reforms most likely digitalization also matter.
***Keywords*:** *digital economy, digital trade hub, entrepreneurship*

1. INTRODUCTION

In the light of recent economic developments in the world, the development of the country's economy, the protection and further improvement of the investment and business environment, the creation of favorable conditions for the expansion of the entrepreneurship sector, increasing the export potential of the non-oil sector, import substitution, and the strengthening of state support to local entrepreneurs is strategic tasks. Systematic, complex steps have been taken in this direction, state programs have been adopted. As a result, according to the World Bank's Doing Business 2019 report, Azerbaijan's position is on the 25th place among 190 countries in comparison with 2017, 32 step forward in 2018, leaving behind many countries in the world leading positions among the Commonwealth of Independent States rising to the world's most reforming country. As a result of more than 70 reform measures, the position of most indicators has increased to a higher level. Significant progress has been made in eight out of ten indicators falling to the top ten in the business start up indicator. These indicators have not been changed in the last two years on the indicator of foreign trade only. This has resulted in increase of attention by the state to that area. At the same time, building of a digital economy is also a strategic task of our country. These decisions include reform measures to promote Institutional Reform and Investment Promotion, as well as to improve the business climate and improve the country's position in international ratings.

2. CREATING FAVORABLE ENVIRONMENT

In recent years Azerbaijan put great efforts in creating business environment for start ups and entrepreneurial activities in non-oil sector. These events includes the establishment of the Economic Reform Analysis and Communication Center on the basis of the Presidential Decree of 8 April 2016, in accordance with the Order of the President of the Republic of Azerbaijan "On the Establishment of www.azexport.az internet portal - Unified Database of Goods Manufactured in the Republic of Azerbaijan" signed on 21 September 2016, creation of "EnterpriseAzerbaijan.com" portal with the Presidential Decree of December 6, 2016, "Strengthening the position of the Republic of Azerbaijan as a Digital Trade Crossroad and Decree No. 1255 of the President of the Republic of Azerbaijan dated 22 February, 2017 "On Additional Measures to Expand Foreign Trade Operations", the establishment of a Single Window Support Center, the State Program on Digital Payments Expansion in the Republic of Azerbaijan in 2018-2020, signed by President of the Republic of Azerbaijan on 26 September 2018, have a major importance. The objectives of the reform of the Center for Economic Analysis and Communication is prepare forecasts for the medium and long-term period, to provide state bodies and institutions with those forecasts, and to organize the promotion of the achievements of the Republic of Azerbaijan in various fields of economy along with macro and

microeconomic analysis and research to ensure sustainable economic development of the country. Among the complex measures undertaken to improve the country's position in international ratings and to increase the business and investment climate availability within the framework of large-scale economic reforms aimed at specific objectives, the Economic Reforms Analysis and Communication Center has launched a single database of goods produced in Azerbaijan - www.azexport.az creation a portal has particular importance. Azexport.az's mission is to provide information on products of Azerbaijani origin and create a favorable platform for their domestic and foreign markets. To carry out this mission, the leading global and local transport and logistixs companies integrated into Azexport.az. “Azexport.az integrates with the world's most popular electronic sales networks and exports goods to the world and offers fast and secure payment via VISA, Master Card and American Express card holders. The Azexport.az portal offers a new service to entrepreneurs. Thus www.azexport.az portal selects the most appropriate among tens of thousands of ads on public and private procurement portals and presents them to Azerbaijani entrepreneurs. Entrepreneurs can now clearly see and enjoy the tenders and orders announced in different countries. At the same time, the portal provides relevant support for participation in such tenders. One of the main priorities of the development of entrepreneurship, which is one of the main directions of the new economic policy, is the expansion of exports, the promotion of non-oil products by the Azerbaijani brand and its sale to foreign countries. The Azexport.az portal's technical capabilities have enabled entrepreneurs to address key issues such as supply chains, low logistics capabilities, and high production costs. The Digital Trade Hub of Azerbaijan ("Digital Trade Hub of Azerbaijan ") project, was created which allows registering as a taxpayer in the Republic of Azerbaijan as a taxpayer and their foreign business partners in the electronic form and signing of contracts as well as transboundary electronic services in real-time mode. In terms of entrepreneurs' access to global markets and the use of new technologies, the Digital Trade Hub has an important role. Digital Trade Hub of Azerbaijan is the e-government-private partnership platform designed to further develop the infrastructure of electronic commerce in the country and to strengthen the position of the Republic of Azerbaijan as a digital commerce interconnector in the region. Opportunities of Digital Trade are - the online unified export petition, customs declarations on the opportunities created by the digital trade junction for the business; e-promotion promotion; Free Sales Certificate; transboundary operations; mutual recognition and validation of signatures. The Portal recommends that all procedures required to meet export incentives for entrepreneurs to promote domestic non-oil products be transmitted electronically through the Digital Trade Hub. The service is also done faster and easier through the Online Single Export Application. The Digital Trade hub, which provides a free sales certificate, is based on X-Road technology. This technology is the safest and most secure protocol for data exchange. It is necessary to have a Free Sales Certificate for export of Azerbaijani products to many countries. The Free Trade Certificate is a relatively new regulatory control mechanism in international trade. Azerbaijan is the third country in the CIS that offer this type of certificate. The certificate is compulsory in many countries and is used to secure the safety of products such as food, cosmetics, textile, medical equipment, hygienic means, etc. that are in contact with the human body. The free sale certificate is a document certifying that the exported goods are freely circulated in the Republic of Azerbaijan, certified by the relevant public authorities and bodies and meets the standards. The acquisition of this certificate is voluntary and is made on the basis of the exporters' application only for the goods produced in the Republic of Azerbaijan. Exporters may obtain a free-of-charge certificate in electronic form or on a paper carrier. The procedure for issuing a certificate is not monitored by any additional labs or tests. A range of documents are required for the free sale certificate, including a list of goods required for a free sale certificate, a certificate of conformity and quality certification, a license for the production of goods (under the law), international

identification number - barcode, 2-3 clients, invoices, checks or tax invoices), and so on. Contracts signed with ISESCO, FutureTrust, GazinformService, Asecco, Microsoft, Eastern Partnership Center and Orientswiss contribute to transboundary operations, recognition of mutual signatures, and thereby improving business relations among countries, facilitating E-Commerce and E-Commerce development. Majority of portal users which is total of 1.5 billion visitors integrated into international electronic sales portals Www.go4worldbusiness.com, the Gulf and Oceania countries, www.tr4worldbusiness.com, www.tradeindia.com, www.indiamart.com, covering the Indian market, and www.agrorubo.com, specializing in selling agrarian products in CIS countries in recent years. The portal www.enterpriseazerbaijan.com was created by the Economic Reform Analysis and Communication Center (ITICM) in order to ensure sustainable development of entepreneurial activity as one of the main priorities of the state's economic policy in the Republic of Azerbaijan and to support competitive domestic production in the non-oil sector. The purpose of the portal is to further enhance the attractiveness of the country's investment and increase the availability of alternative funding sources for the development of the economy. The portal is a database of investment projects, startups, property, stock, land and other assets in Azerbaijan, which is regularly updated, easy to use, accessible, safe, fast and affordable. Project developers looking for potential investors and potential investors looking for a job to invest come together at the EnterpriseAzerbaijan.com portal. "EnterpriseAzerbaijan.com" portal has integrated into the Azexport.az, Digital Trade HUb, and "One Window" Export Support Center. "One Window" Export Support Center , which operates under the "Azexport" portal from May 25, 2017, is a joint venture in the Republic of Azerbaijan for the registration and signing of documents, including contracts with taxpayers as well as their foreign business partners, as well as real-time transboundary electronic services. Representatives of state agencies integrated into the Center operate in the service center and exchange information in real-time with information resources. The Center is planning to issue a number of certificates: export certificate for animals, animal origin products and international veterinary, Phytosanitary (re-exported phytosanitary) certificate for export (re-export) of plant and plant products, Quality certificate for exporting food products to European Union countries, certificate of origin of goods origin, Permit for the export of wild fauna and wild flora species, which is at risk of extinction, protection certificate for export of cultural assets, the consent of the export of religious literature (paper and electronic carriers), audio and video materials, goods (products) and other materials of religious content. As a result of these reform measures, several achievements have been achieved to improve the business environment in Azerbaijan. Thus, according to the State Customs Committee information , export of the Republic of Azerbaijan for January- October 2018 amounted to $ 16.3 billion. During this period, growth in the non-oil sector export was observed in the Republic of Azerbaijan, and exports for the first 10 months of the current year amounted to $ 1 billion 351 million in non-oil sector. Exports from the non-oil sector increased by $ 132 million or 11 per cent in January-October 2018 compared to the same period of 2017. In January-October of the current year, exports to Russia amounted to 467.2 million dollars, to Turkey - 293.8 million, to Sweden 114,4 million, to Georgia – 106,5 milion and to Kazakhstan - 38.4 million US dollars. In comparison with the same period of the previous year, non-oil exports to Russia increased by 11 per cent to Russia in 10 months, Turkey by 20 per cent, Switzerland to 10 per cent, China to 75 per cent, and to Georgia by 2.6 per cent. In the list of commodities of non-oil sector exported during January-October 2018, tomatoes were the leader with export value of 150 million US dollars. In this list, gold was the third ($ 68 million) of the first form of polyethylene ($ 100 million), which was not used in coin cutting and the second and special mass was less than 0.94 with special increase of 15%. Exports of tomatoes increased by 14% compared to the same period last year. In this list with compare of previos year same period polyethylene (68.5 million), with a 2% increase in gold compared to last year, with a

second and a 15% increase in gold (other non-finished forms - 100 million US dollars). Generally, exports of fruits and vegetables totaled 405 million dollars in January-October 2018, which is 8% increase of previous year, exports of plastics and finished products amounted to 95.7 million, exports of aluminum and finished products - 97.2 million, electricity exports - 60 million, ferrous metals exported goods amounted to 64.3 million, cotton fiber exports - 65 million, export of chemical products - 47 million, cotton export - US $ 19 million. Compared to last year, these products accounted for 2.5 times the cotton fiber. In November of the current year export of non-oil sector was 144 million US dollars. In the list of the most non-oil exported countries in September 2018 the top five countries were Turkey (34.5 million US dollars), Russia (22 million USD), Switzerland ($ 13.9 million), Ireland $ 10 million) and Georgia ($ 7.2 million). Azercosmos has been exporting services to 22 countries of the world . During 9 months of this year, Azercosmos OJSC has earned $ 16.7 million in sales of satellite and communications services. In addition to products, there was an increase in the export of various services. Azerkosmos has exported 22.4 million worth of services to 23 countries worldwide. Implemented. During 10 months of this year, Azercosmos OJSC has earned $ 16.7 million in sales of satellite and communications services. During the first 10 months of 2018, the value of export orders to Azexport portal amounted to $ 433 million. Compared to the same period of 2017, this is a 15% increase. In general, the value of export orders from Azexport.az to 106 countries from January to 2017 amounted to $ 908 million. Additionally, in the first 10 months, 2420,600 Azerbaijanis from 194 countries of the world, or 6.4 percent more foreigners and stateless persons came to Azerbaijan compared to the same period of the previous year, the value of their transactions through bank cards amounted to 1119 million manat, compared to the same period last year, the value of these transactions increased by 205 million AZN or 25 percent. It should be noted that in January-October 2018, the cost of export through the "One Window" Support Center was more than $ 124.5 million. At present, more than 10% of the country's non-oil exports are documented at the "One Window" Export Support Center. Physical and legal entities operating in our country are mainly engaged in steel pipes, steel reinforcing rolled steel, steel platinum, precious metal ingots, oxygen bacon, hazelnut kernel, fruit, fruit juices, barley, rootstock, tomato straw, tobacco, frozen slices and shells, sheep bowel, lamb, Dagestan tour, magazines and so on. the relevant documents required for the export of products were submitted. Certified products has been exported to various countries such as Turkey, Georgia, Austria, Russia, Kazakhstan, Iran, Canada, Germany, USA, Turkmenistan, Qatar, Austria, Ukraine, Lithuania, Switzerland, Belgium, Canada, New Zealand, China, Ghana, Malaysia, Uzbekistan, Italy, Israel. During the first 10 months of 2018, the Exporters for Economic Reforms Analysis and Communications Center (ITECM) have been given free-of-charge sales certificates to more than 200 companies including Gazelli Group LLC, Apiaz LLC, Aznar CJSC named after Teymur Ahmadov, Brightman LLC. The activity of the Azexport portal of the Center for Economic Reforms and Communications and the One-Stop Support Center was highly estimated in the report "Business Environment in Azerbaijan 2018" prepared by the European Union. The Azexport portal and the "One Window" Business Support Center are examples of institutional reforms in export diversification.

3. CONCLUSION

Today, macroeconomic stability, favorable investment and business environment protection, development of entrepreneurship, development of the non-oil sector in the country are strategic objectives. Complex systematic steps are taken in this direction. State programs are accepted. At the same time, building a digital economy of this country is also a strategic task. The article deals with a number of issues related to the State's consistent measures on the economic electronization of the economy and their impact on the development of their publicity activities in the direction of these tasks.

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CYBER-ATTACKS AND INTERNET OF THINGS AS A THREAT TO CRITICAL INFRASTRUCTURE

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ABSTRACT

The Internet of Things (IoT) is the interconnectivity with smart assets that are securely networked over an open, standard network. The full value of IoT is complementing smart, networked assets with contemporary technologies such as scalable computing, information management, analytics, and mobility gives us Internet of Things also known as Internet of Objects. The IoT will foster the development of a number of applications that make use of the potentially enormous amount and variety of data generated by such objects to provide new services to citizens, companies, and public administrations. The Internet of Things is a very real trend and it is just a matter of time before IoT has a signicant impact on the way we live our lives.

Keywords: *Internet of Things, Ubiquitous sensing, interconnectivity, Smart environments, cyber-attacks, data exchange*

1. INTRODUCTION

The Internet of Things (IoT) is the interconnectivity of the world around us. We have stepped into a dawn of a new era of Internet of Things also known as Internet of Objects. Machine-to-machine (M2M) communications is at the heart of the Internet of things. The use of interconnected sensors and controls that help us gather and analyse data about the environment, the things that exist within it, and the people that act within it, to improve our understanding and automate previously manual processes. They have suitable protocol stacks that gives to this objects and things ability to communicate with one another and with people that uses them. idea of the Internet of Things suggests that rather than having a small number of very powerful computing devices in your life such as cars, shoes, wallet, mobile phones, oven, refrigerator, bracelet, watch and many other small things. Manufacturers of electronic products have started to incorporate general-purpose computer CPUs into their products, from washing machines to cars, as they have seen that it has become, in many cases, cheaper to do this than to create custom chips. Designers and engineers work closely to make industrial products, and hobbyist "hackers" (in the sense of tinkerers and amateur engineers), by their nature, are a diverse group encompassing various technical and artistic interests and skills.

2. METHODS FOR DEVELOPING IOT INFRASTRUCTURE

Cross-site scripting (XSS) is a type of computer vulnerability which is found in internet applications. They enable access to scripts which are run on the client side in the user's browser. Cross-site scripting is a vulnerability which can be exploited by attackers in order to bypass computer access control [8]. Careless surfing, use of outdated browsing and antivirus software tools, increased activity of spammers, forwarding of links and images over social networking and internet forums, lack of preventive security measures during the development of web applications aid the wide-spread of this attack. Once an attacker is able to find vulnerability associated with a web application, he will be able to attack its web users using this vulnerable web application. Client side scripts like Java Scripts are most widely used for implementing XSS attacks [9]. Privacy is an important issue in IoT devices and service on account of the ubiquitous character of the IoT environment. Entities are connected, and data is communicated and exchanged over the internet, rendering user privacy

a sensitive subject in many research works. Privacy in data collection, as well as data sharing and management, and data security matters remain open research issues to be fulfilled [10].

3. INFRASTRUCTURE AND POSSIBILITIES OF DEVICE INTERACTION

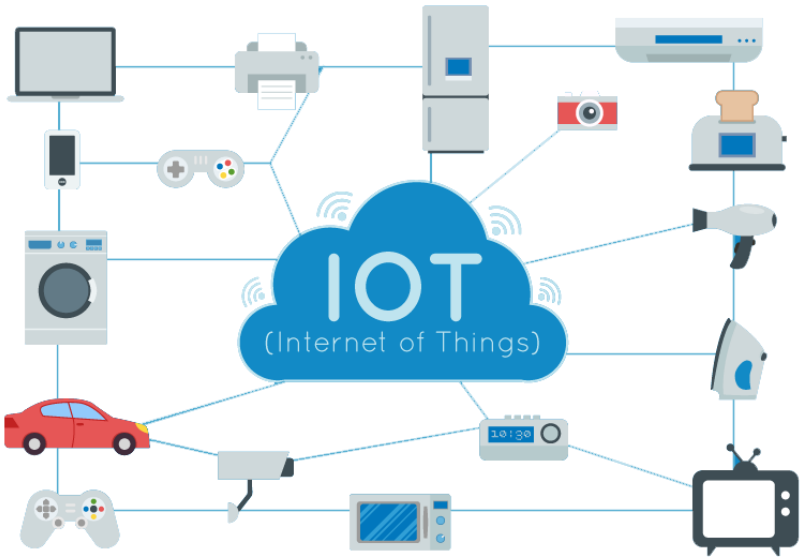
Because IoT involves so many industries, new jobs will be generated and additional value will be increased, which bring chances to social development, including promoting employment and economic development1. Society also affects IoT development. Modern knowledge systems can be divided into many subjects. Table 1 lists some relative IoT subjects and their corresponding relevance to IoT development.

Table 1: Subjects examples related to IoT

Relevance	Subject examples
Highest	Information and communication engineering, electronics science and technology, control science and engineering, computer science and technology
Very high	Instrument science and technology, mechanical engineering, optical engineering
High	Chemistry, biology, physics, mathematics, transportation engineering, aviation aerospace science and technology, architecture, agricultural engineering, medical technology, pedagogy
Middle	Law, public management, applied economics
Low	Artistic theory, acheology, …

Source: Huansheng, N.; Sha, H. Technology classification, industry, and education for Future Internet of Things; International journal of communication systems; 2012. Str. 1230 - 1241

Figure 1: The future of IoT where all devices are connected and communicating with each other[2]



Organizations are gaining flexibility to quickly adapt to changes, whether for new product introductions, planned product line changeovers, or other adjustments. Each affected zone, from the enterprise to the plant floor to the loading dock, receives real-time alerts about changes through networked mobile devices, video monitors, and human-machine interfaces.

[1] Balandin, S.; Andreev, S.; Koucheryavy, Y. Internet of Things, Smart Spaces, and Next Generation Networks and Systems; Springer; 2015. str. 47.
[2] Tecrea; URL: https://tecrea.com.co/blog/2018/08/15/iot-empresas-generan-desarrollo-colombia-mundo 2018.

The real-time information also links back to the entire supply chain, so each step in the manufacturing value chain, from supply through production to distribution, can respond as quickly as needed.

4. INTERPLAY OF INTERNET OF THINGS AND SOCIETY

As one of the significant emerging technologies, Internet of things has been revolutionizing so many fields including our daily lives, by providing new communication ways between machines. There are 3.4 billion internet users globally and 10 to 15 billion IoT devices and this number is regularly increasing. While internet revolution redefined the modern life and provided unprecedented opportunities, internet of things has brought smart-life with so many smart devices. It transformed every field of daily life, industry and economy. Some of the devices that come with components mentioned above are: kitchen equipments (i.e refrigerator, oven, food processor), home appliances, TVs, cars, lighting and heating products etc. Smart thermostat, for instance, alllows users to remotely adjust the temperature by using their mobile phone. In addition to that, as its collects data and interact with other connected devices, it learns user's behaviours to automizes processes for the next time. On the other hand, as improvement of IoT continues, concerns about the information security are increasing. Even though IoT is revolutionary, it comes with some risks. And these concerns are not just a superstition, they are based on some incidents that already taken place. For instance, Proofpoint, a cyber-security company, reported that more than 100,000 smart TVs, refrigerators and other consumer items were compromised by hackers to transmit 750,000 malicious emails in a two-week period3. Smart gadgets are attractive to cyber-criminals and hackers. Because they are connected to internet 24 hours and they are less protected than computers, since users are less experienced and have usually less options for security with them[4]. Technical vulnerabilities can be basic vulnerabilities or application-based vulnerabilities. Technical ones refers to the vulnerabilities of common internet protocols. The core protocols of internet such as IP (Internet Protocol), TCP (Transmission Control Protocol) and HTTP (Hypertext Transfer Protocol) weren't including security features at first when they created, since the Internet used for academical and governmental purposes and users of the internet were trusted individuals and institutions at that time. After a while, security precautions were included to these protocols as extensions with the expandation of the internet. Therefore, the Internet is still vulnerable to basic attacks such as DDoS, eavesdropping, hoaxing and packet sniffing. Apart from core protocols, there are a number of applications, including operating systems, that run on top of basic protocols. These application vulnerabilities are exploited by attackers to gain access privileges to remote systems, steal information and interrupt services. In general, hackers exploit both basic protocols and application vulnerabilities depending on the situation. In order to use the IoT with its full potential and safely, governments and businesses have to meet some requirements. Security and data privacy are the most important vulnerabilities to attacks. Organizations "need clear legal guidelines over data ownership, transfer and usage". "Governments need to collaborate with each other and with industry to harmonize compliance requirements in data and liability laws… This will streamline data flows within a jurisdiction and across national borders". "Operational safety and security practices vary greatly across industry domains. It is important to understand and document existing best practices across industries. This will help identify gaps and requirements for potential innovation, standards or new cybersecurity products."

[3] Debruce, O. Proofpoint uncovers Internet of Things cyberattack; URL: http://investors.proofpoint.com/releasedetail.cfm?releaseid=819799; 2014.
[4] 100,000 Refrigerators and other home appliances hacked to perform cyber attack; URL: https://thehackernews.com/2014/01/100000-refrigerators-and-other-home.html; 2014.

During the manufacturing process, security must be a built-in aspect of design for both hardware and software. Over time, these should evolve as standards that guarantee a certain level of default security to the systems.[5]

5. CONCLUSION

IoT integrated critical infrastructure brings revolution of opportunities for governments and organizations. Although there are still technological challenges and concerns to handle, this emerging technology will increase the efficiency of modern world. Most important topics are ensuring data privacy and cyber security in order to maintain innovation and growth ideally. Organizations and governments have to be aware of that attacks and vulnerabilities can never prevented completely and should improve their capabilities against cyber-attacks. It will allow organizations to profit opportunities offered by digital world and minimize the risks of danger. The industry recognizes the challenge and is making it the top priority. IoT security is starting to be integrated into the very fabric of both industry and public infrastructure, including fundamental areas such as transportation and logistics, power grids, water supplies, and public safety. However, much more needs to be done. We still lack skills, education, and awareness. Many companies continue to be in denial, still relying on a discredited physical separation approach to securing their plants and infrastructure. Internet of Things is different than Information Technology in many ways, it is more distributed, more heterogeneous, and more dynamic.

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[5] Tobby Simon; Critical Infrastructure and the Internet of Things; Global Commission on Internet Governance; Paper Series no 46, 2017.

CLUSTER POLICY AND ITS FORMATION FEATURES

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ABSTRACT

Clusters are crucial in the development of the economy and in the transition of the country's innovative development. In practice, the cluster approaches are implemented through the cluster policy. Cluster policy involves the adoption of relevant programs and strategies for the development of individual clusters (cluster initiative), as well as the formation of an instrumental database (cluster technology) for the implementation of these programs and strategies. The article summarizes the main characteristics of the cluster, such as the object of economic analysis, the cluster policy and the features of its formation. Cluster policy models are analyzed comparatively.

Keywords: *cluster, cluster policy, cluster strategy, cluster initiative, cluster consulting, cluster technology*

1. INTRODUCTION

Practically cluster approaches are implemented through cluster policies. But according to the general approach, cluster policy is the state's system of actions and mechanisms for the formation and protection of clusters aimed at improvement of the country's competitiveness. However, it should be taken into consideration that the issue of the cluster policy in science has become a subject of discussion. It is regarded as an integral part of an independent or economic policy. Thus, the cluster approach was firstly looked through within the framework of industrial policy in Finland. From a practical point of view, there is no clear definition of cluster policy concepti, the genesis of this policy consists of a new industrial policy. According to M. Porter, the improvement policy of competitiveness of the country or region is the strategic focus of the horizontal cluster policy (1).

2. THE NATURE OF CLUSTER POLICY.

Cluster policy involves the adoption of relevant programs and strategies for the development of different clusters (cluster initiatives), as well as establishment of instrumental database (cluster technology) for the implementation of these programs and strategies. In medium range, the main focus of the cluster policy is to establish network-type knowledge to make structural and technological changes, and reconstruct industrial enterprises through attracting enterprises and research institutes involved in this process. The primary task of the cluster policy is to establish an institutional mechanism to ensure the development of the economy on a cluster basis at national and regional levels (Figure 1).

Figure following on the next page

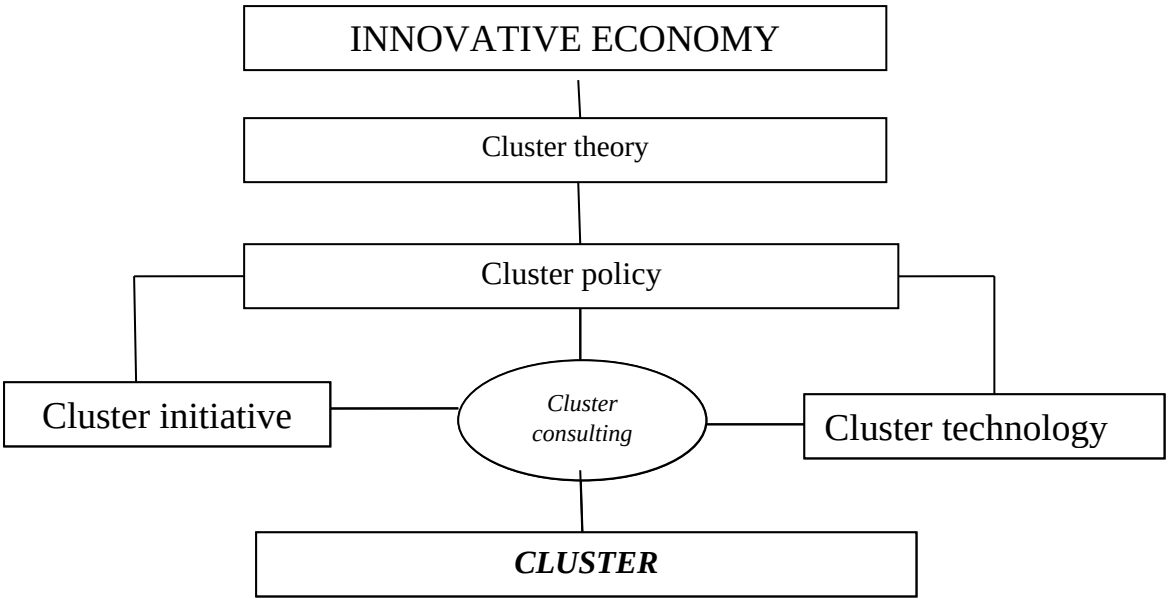


Figure 1: Implementation mechanism of cluster policy.

In our opinion, the cluster initiative, cluster firms, includes the strength of the joint venture, both aimed at promoting the development and competitiveness of cluster firms, government, education and research organizations in a definite spheres. If cluster policy is the mechanism of action of the state and cluster protection mechanism which promotes the competitiveness of the region and the cluster enterprises, as well as the application of innovations, then the cluster initiative is the organizing of a cocrete cluster in a specific area. Cluster policy is revealed as an alternative to "field policy" which iplements defence of specific enterprises and fields. Cluster policy substitutes the field policy focusing on a particular sector of the economy and the specific measures that are meant for this field, namely the technological designations (2). The main differences in the cluster approach compared to the traditional field approach are given in Table 1.

Table 1: Main different aspects of the cluster approach to management compared to the traditional field approach.

Main parameters for comparison	**Cluster approach characteristics**	**Characteristics of the sectoral approach**
Formation principle	Horizon and vertical integration, optimization of cross-sectoral interaction	Technological feature
Economic growth potential	Effect of synergy conditioned by the interaction of different elements. Presence of major participants (large enterprises, scientific institutions)	Production intensification
Opportunities for innovation potentials activation	High levels of innovative activity gained through concentration of resources in individual elements that identify the innovative potential of the cluster	Integrity of the innovation-driven system, the problems of communication
Competitiveness of products	Increase due to the concentration of cluster elements that lead to the reduction of transaction and transport expenditures	Weak territorial concen-tration of enterprises enga-ged in the reproduction within a single area
Investment attractiveness	Determined by the comprehensive use of investment resources	Investment effectiveness is determined by the capabilities of the investee.
Communication levels	Long-term relationships based on mutually beneficial relationships between cluster participants	Strong hierarchy structure determined by technological and administrative manage-ment relationships

Technology is a complex of organizational measures, operations and methods aimed at achieving optimal results by minimal means. Cluster technology is a cluster algorithm, taking into account the degree and scale of the existing market infrastructure's potential. As known, the application of technology is consistent with the completion of the cluster development strategy and action plan for the project, formulating the cluster participants' specific association, implementing the development program and evaluating its effectiveness (3). Thus, cluster technology requires a new, project-oriented approach to stimulate the cluster development and is regarded as a specific tool for cluster policy regardless of scale. The findings of MN Mironov's research show that in foreign practice, cluster politics is divided into two periods from the historical point of view as the first and second generations (4). The first-ever cluster policy includes a set of measures undertaken by the state to incorporate cluster identification, defining cluster firms' activities, and overall policies to encourage all clusters in the country. In this period, economists who have identified the necessity of clustering with economic geography and modeling play an important role. This stage of cluster policy is more characteristic for countries with a high level of development in traditional production (Spain, Portugal, Niderland and Italy). In the countries where the cluster exists, the second-generation cluster policy, based on high knowledge, implies individual approach to the development problem of each cluster. Thus, the public manager, customer, the initiator of the production process, acts as a source of financing for the cluster participants, who coordinates the producer and consumer within the cluster. The second-generation cluster policy is specific for countries that have clustered and high-quality economies (UK, Finland, Austria, USA, Sweden, Switzerland) in all sectors of the economy (industry, new technology and service sectors). The summarizing of the abovementioned allows to formulate the functions of the state in the clustering process and the principles of cluster policy. Thus, the summarizing of the aforementioned will allow formulating the cluster policy principles and defining the functions performed by the state in the process of clustering.

2.1. Maın prıncıples of cluster polıcy

Cluster policy is primarily based on the following principles:

- Systematics - The cluster and its constituent elements are subject to the economic system as a whole. Clustering envisages long-term planning of business-oriented projects;
- Selectivity - Prioritization of projects that contribute to the country's competitiveness at the national level. Provision of income outside raw materials, integration of production (finance) in science (s), synergy effectiveness;
- Reality - Taking into account global and regional factors, taking into account local characteristics, specific risks;
- adequacy to the cluster development phase - Implementation of regional pilot projects to achieve economic impact and minimize risks;
- cooperation between public and private sector to minimize risks;
- maximizing external effectiveness and sharing it among multiple stakeholders;
- Responsibility and control over the use of budget funds, transparency of key decisions;
- the state plays an important role, not dominant;
- multilevelity of clusters formation, national, regional and local.

In most developed or emerging economies, the state finances all-round cluster programs. In 2008, the "European Cluster Memorandum" was adopted, and all EU member states have nationalized clustering programs. The state interferes in the formation and development of clusters in two main directions:

- initiating the creation of clusters across the country;
- protecting existing clusters.

2.1.1. Functions and models of cluster policy

Depending on the purpose and culture of the enterprise, the state performs various clustering policies (5):

1. Institutional - Improving the quality of infrastructure and education standards that are considered as the basis of institutionalized crisis, elimination of administrative barriers, forming methodological and normative legal support for the process.
2. Mediation - Establishing and strengthening mutual relations between participants. Cluster projects to world markets. Ensuring access to technology. Information support and coordination of patent-licensing activities.
3. Cooperation - Development of cluster development strategies and tactics. Financing of projects, research and development works. Formation of the State Order Package to stimulate demand for innovative products.
4. Insurance - Creating appropriate insurance companies to share risk among cluster participants. Guarantee of the services to be provided and compliance with the commitments in the joint projects.
5. Stimulation - Motivation of potential and real cluster members with the help of budget-tax policy. Strengthening business activity in priority areas.
6. Control - Control over the use of budget funds in accordance with the project's goals and objectives.

In the cluster policy, the two different models of "cluster" and "continental" differentiate between different countries in the cluster policy. The first group includes countries such as the United States, the United Kingdom, and Australia, which defend the cluster policy of the "Anglo-Saxon". The basic principle of this policy is that the cluster is a part of the market relations system and, at the same time, removing all the obstacles that may arise in the development of clusters constitute one of the important functions of the federal government. A significant role in the formation and development of the cluster involves the regional authorities, as well as regional organizations that develop and implement cluster development programs together with key stakeholders. The federal government mainly sponsors and protects a small number of pilot projects. The "continental" model is used in a number of European countries (Japan, the Republic of Korea, Singapore, France, Finland, Germany, Norway, Sweden, etc.), where state policy plays an active role in the development of clusters. This model begins with the selection of clusters that are considered to be one of the priority and fundraising for cluster development strategies and programs, and incorporates a set of complexities ranging from formulating key elements (eg, infrastructure, research centers) to achieving achievement in their activities. In most developed or emerging economies, the state finances all-round cluster programs. In 2008, the "European Cluster Memorandum" was adopted, and all EU member states have nationalized clustering programs. The state interferes in the formation and development of clusters in two main directions:

- initiating the creation of clusters across the country;
- protecting existing clusters.

However, there is no single model associated with the economy's clustering. Therefore, the scale, type, forms and tools of the cluster policy are different, taking into consideration the country's national and regional characteristics (Table 2).

Table following on the next page

Table 2: Cluster policy classification

Types of cluster policies
1. According to the role of the state
1) *Catalytic*: brings together stakeholders with limited financial support
2) State investment is channeled to stimulate the development of *protective* - infrastructure
3) Through development of *directive-protective* clusters, special programs are realzied aimed at transformation of regions or the relevant field
4) Intervention - is responsible for the specialization of the Directive and Clusters' perspective, for their specialization through transfers, subsidies, administrative restrictions or incentives
2. According to Genesis
1) *Up-down*: entrepreneur - central, local authorities, objects - national and transnational clusters. For example, Finland, Denmark, Netherlands
2) *Down-up*: "cluster initiative" - efforts to stimulate cluster development in the region.
3. According to the type
1) *High-tech*. Advantages: structural restructuring of the economy and strengthening of its competitiveness. Risks: (1) Most innovators in the world tend to select the same area of action. This increases the amount of investment attracted to similar technologies; 2) the absence of the initial conditions in the region, for example, the necessary resources, the habits for mastering new technologies; 3) fewer jobs
2) *Low technology*. Advantages: Creating numerous jobs within the cluster. Risks: Destruction of restructuring processes as a result of artificial defense of obsolete production technology, strengthening the country's autsayder status.

M. Porter's pupil and follower M.Enrayt offers four mechanisms for the implementation of the cluster policy (6):

1. catalytic cluster policy: brings together government stakeholders (eg private companies and research firms) and provides limited financial support to them;
2. protective - in addition to the state's catalytic policy, large-scale investments in the development of infrastructure (education, professional training, marketing, etc.) that create favorable conditions for cluster development are taken into account;
3. directive - special programs aimed at transformation of regions or the relevant field by adding clusters to the defensive function of the state;
4. intervention - In addition to the directive, the government assumes responsibility for making decisions on the future development of clusters through transfers, subsidies, administrative restrictions or incentives, as well as an active control function that promotes cluster expertise.

3. CLASTER CONSULTING AS ELEMENT OF CLUSTER POLICY

Cluster consulting is another element of the cluster system in implementing cluster policies and cluster initiatives. Cluster consulting involves providing information about services that are selected for clusters of specific types, as well as the basics of cluster management management. As a rule, cluster policies are implemented through cluster strategies that incorporate clusters organization and development, packages of specific actions on national or regional level. Cluster programs (identifies the names, duration and implementation of actions to be performed) that are identified, identified in the identified directions. In the implementation of cluster strategies and programs, typically, the use of variable, non-repetitive forms of analytical methods and techniques is preferred. Therefore, it is more appropriate to develop a new one instead of standardizing a set of measures that involves the formation and development of a specific cluster. This is a typical example of Finland's experience: Within the National Program, the "cluster structure" is defined and the regions are given the right to participate in the cluster identification, development strategies and tactics development. Regardless of the form of cluster policy, government intervention is implemented through the impact of key factors that determine the success or failure of clusters in neutralizing risks and overcoming the barriers. Different approaches are used during identification of these factors.

The most commonly-articulated form of this type of approach is the Diamond model offered by M. Porter. In this context, clusters' success factors are differentiated: 1) strategy and structure of firms, competition (institutional environment); 2) availability of relevant areas; 3) availability of required production factors; 4) requirements for world traditions and domestic demand. In these conditions, the main point for the Republic of Azerbaijan is an institutional environment that justifies the many risks. Regional, sectoral and corporate interests may not necessarily coincide with the interests of the country as well as the government's focus on business. Inadequate selection of priorities in the outcome of the official / business information asymmetry, lobbing the interests of business groups, compulsory arbitration of some projects, contrary to cluster desires. situations can lead to the creation of "false" clusters, the need for budgetary funds, and the conservation of the existing structure of the economy. In order to avoid this, first of all costs for using non-innovative tools should be increased, the transparency of decisions taken and their social expertise should be increased, focusing not on individual beneficiaries but on clusters as a whole; control over the implementation of the obligations by the cluster participants should be monitored, gradual transition to cluster policy should be ensured through pilot projects.

4. CONCLUSION

The concept of "cluster politics" in countries around the world is at the stage of adaptation to the specific activities of the government, economy, science and education, business and society. Cluster policy is generally considered a new direction in the development of relevant economic sectors and sectors across the country. Research in this area forms the initial conditions for the use of the cluster form from its innovative potential to practical activities. Clusters like the national development bloc are targeted at modernizing the economy through large-scale analytical and regulatory-methodological work. During the implementation of cluster programs, three important factors, such as the selection of the participants, the organization of the services provided, and the participation in the funding of research / project financing are highlighted. Evaluation of these factors is at the stage of creating clusters. The direction and volume of state protection directly depends on the specificity of the clusters created.

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THE PROSPECTS OF DEFENCE COOPERATION BETWEEN THE EUROPEAN UNION, THE RUSSIAN FEDERATION AND THE PEOPLE'S REPUBLIC OF CHINA

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ABSTRACT

The most important EU member states may shift away from the US renewed containment strategy, oriented on Russia. NATO allies had in earlier periods picked up geopolitical theories and theses from Mackinder and Spykman. More recently, these were used by political lobbies in the US administrations inside the White House and Pentagon to create the US Grand Strategy that was devoted to building up the US hegemony into the world by following the New World Order in the 21st century. The Containment policy toward Russia was created by the US financial, economic and military lobbies, to continue with the old fashioned Geopolitics. The EU member states may find out common military identity and authority to form a European Defence Union (EDU). The EU could open a new page into the (white) book to implement multilateral world order that shares geopolitical and geoeconomic interest in defence cooperation with China and Russia, and therefore continue with the development of its defence identity, more independent of NATO.

Keywords: *The European Union (the EU), PESCO, defence cooperation, NATO, the USA, Russia, the PR China*

1. INTRODUCTION

European politics made a major shift in the 21st century away from conflict theories to successfully avoid continental wars and especially twisted downturn to distance itself from the warmongering toward military confrontations. At the beginning, we have to mention geopolitical theorists whose theories were deeply involved into forging international policies in the 20th century. Geopolitical theories and theses of Mackinder and Spykman were used by political lobbies in the US administrations inside the White House and Pentagon to create the Grand Strategy devoted to building up the absolute hegemony into the world by following the New World Order in the 21st century. NATO is the most powerful means of implementing the US interests in Europe. The Containment policy was created by the US financial, economic and military lobbies. Is Europe still under the influence of confrontation theories? Is this the reason why it is not pushing deeper multilateral (defence) cooperation in Eurasia?

2. THE CURRENT EU DEFENCE COOPERATION AND THE ROLE OF NATO

The US officials at the 2018 Munich Security Conference expressed their fear that the EU defence cooperation may distract the EU from NATO (Karnitschnig, 2018).

The Pentagon official criticized the EU's common security and defence policy for pulling forces away from NATO, and the U.S. ambassador to the Alliance warned against the provisions to protect European defence companies (Valašek, 2018). The EU states need to spend more money at defence budgets to prepare for war against Russian counterpart. That was a clear voice from US partners in NATO alliance to EU partners. The US President Trump singled out that the USA stood by the clause, which states that an attack on one NATO member is considered an attack on all of them. But his remarks in Warsaw since 2017 were the first time he had done so on European soil (Crowley, 2017). Trump had labelled NATO as obsolete and openly questioned whether the USA would make good on the treaty's communal defence obligations for nations who have not spent enough on their own militaries. As President, he has railed against NATO members who do not meet the agreed-upon two percent of their gross domestic product (GDP) on defence and has claimed credit for increasing military spending among member states (Nelson, 2017). He had asserted and repeated again that NATO alliance being out of date to be pensioned soon. The US Secretary of Defence Mattis had wowed to European allies by telling them they must increase military spending or the USA will pull back from its commitment to the transatlantic bloc. No longer can the American taxpayer carry a disproportionate share of the defence of Western values (Herszenhorn, 2017). It is a warning to the European pillar of NATO states to buy more military product made in US to increase profit to US multinationals into the productive defence sector complex. The EU states spend €27 thousand per soldier on equipment and research, compared to €108 thousand per soldier by the USA. And while Russia spends more than five percent of its annual GDP on defence, the EU member states spend an average of 1.3 percent of GDP (Herszenhorn, 2017). The EU stays behind the US military spending, it seen that the EU leaves from mercy like a big social problem, taking social allowance and some adoptions of NATO fund. The systemic nature, dynamism, and sustainability of the Eurasian continent, depend on the degree to which Heartland is orderly and manageable. The main function of Heartland –the central part of Eurasia – can be described as ensuring sustainable land contacts along the parallels (West-East) and meridians (North-South). In other words, the central part Eurasia should contribute to consistent geopolitical and economic integration of large and relatively isolated areas of the Eurasian continent (Ismailov and Papava, 2010: 97). The neo-geopolitical approach in the early 21st century gave a new boost to studies of the regional structuralization principles for the geopolitical and geo-economic space of the entire Eurasian continent. NATO policy has tried to fulfil its principles and expectations since the end of the Cold War, by pushing the NATO Alliance into eastern states and Balkans those was under Russian dominance before. After the Warsaw pact had collapsed and this vacuum had been fulfilled by expansion policy under NATO alliance that had set political control over the post-communist Central and Southeast European states. The NATO alliance system hinges geographically on the Western portion of the landmass and constituted the western flank of the US Containment policy. In the south lay the Middle East and the southern portion of Central Asia (as for the Gulf, for some time Iran was a pro-US ally under the Shah until the Islamic Revolution in 1979), and to the East lays Japan as well as other countries in the US camp as well as naval bases, all positioned to prevent any power in Pivot from dominating the Eurasian landmass through the Rimland. The main goal of this strategy was to prevent Heartland (or Pivot) from being dominated by a single power or coalition of powers (Boon von Ochssée, 2007). The USA is opposed to the EU's integration into super state and formed multinational European army under single command as single set of forces to carry out the European defence policy. The USA does not support European defence union that could endanger NATO existence in Europe and renounce defence relation with Russia. Both Mackinder and Spykman had been applauded on the conflict relations in history by confrontation sea power against Heartland. In Spykman, however, there are conflicted international relations between sea powers and Heartland, and that between an

independent centre of power in the Rimland with both sea power and Heartland allied against it (the EU super state against the domination from the USA, Russia, and China). The US approach to containing Russia's strategy is being a part of the New World Energy Order which is based on geo-strategic thinking by Mackinder. The old fashioned political theory was transferred into modern international relations with some corrections those are coerced through alliances NATO, CENTO, and SEATO did into the Containment policy, by tightening economic, military and political siege around Russia and China.

3. THE ENTENTE OF HEARTLAND ON ITS WAY TOWARDS DEEPENING DEFENCE COOPERATION?

Russia and Germany watch carefully Beijing's One Belt, One Road project (OBOR), that was announced in 2013. The possible tripartite world of Europe-China-Russia poses a huge challenge to US foreign and trade policy. The road ahead for the Trump Administration is full of possible jarring potholes, which would be familiar to all three geopolitical theorists – Mackinder, Mahan and Spykman (Norval Morgan, 2017). Germany, Russia and China had conversed common joint strategy to connect, cooperate and consolidate (3C approach) Heartland. The common project was aimed to build up intercontinental Economic Belt made up by those countries those are encompassing communications by traffic railroads through Central Asia, West Asia and Europe. The USA might stop or disrupt this major continental traffic connection by flaring up interstate wars into those states served as getaway or pass way states inter positioned in the Caucasus (Georgia, Azerbaijan, and Armenia etc.) and the Eastern part of Europe (Ukraine and Moldavia). It is looking for interconnection at land and air with Russia and China with Silk Road switches otherwise they are searching for designated path on the roadmap how to avoid physical territory of NATO centric states in Europe. NATO centric states into the Eastern Europe had emplaced barrier like indirectly frontier states to Russian neighbourhood states with Belorussia and Ukraine after NATO enlargement was pushed toward Eastern flank. Other EU smaller post-socialist states Slovenia, Croatia, Czech, Slovakia, Hungary and Bulgaria still balance in which political club they belong. Heartland players had been boosting mutual defence cooperation into defence industry since 2018, while Russia is enlarging its defence industry collaboration with Germany and other European countries in Eastern Europe's Balkans region, despite the US threats to impose additional anti-Russian sanctions (Sputnik News, 2018). Neoliberal context by building up mutual EU – Russian cooperation and trusties may shake legs to NATO hostile policy if the EU states are going to lift sanction against Russia. The US will continue with attempts to derail EU – Russian cooperation. Political fissures had been cracking totally between Old and New Europe states disagreement among lifting siege for Russia and renouncing back diplomatic, economic and military ties before Ukraine fiasco. If the EU states will not replace political attitude to transatlantic link while the EU common defence and security policy is not willing to replace or compete with NATO as the EU is not a military alliance and will not turn into a military alliance (Aries, 2017), then the EU Grand strategy issued since 2014 presented only a "paper tiger" for the EU defence cooperation. Referring on the defence cooperation in a transatlantic context did not exist absolutely. Juncker said, if Europe does not take care of its own security, nobody else will do it for us (Barigazzi and Cooper, 2017). Increased support for partnership was expected from France, Germany, Italy, and Spain. The EU is the world's second-biggest spender on defence, because many EU countries traditionally favour domestic munitions manufacturers, about 80 percent of defence procurement in the EU is carried out on a national basis, which has in turn created a highly fragmented defence market across Europe. European armies use 17 different systems of battle tanks, compared to just a single system in the US army. While the US army operates with just two different types of howitzers, European soldiers use 27 different systems.

At sea, the European naval forces work with 29 different types of destroyers and frigates, compared to four in the US army. A total of 178 different weapons systems are in use in Europe, compared to 30 in the US army (Delcker, 2017). The duplication of defence trading is evident and EU states are focused to preserve national defence productions of facilities. The PESCO initiative under would reduce production costs by pruning armament national programmes to get avoid from flooding European defence market without hi-tech technology assortments. The EU leaders agreed to increase spending on defence research from €25 million now to €500 million beginning in 2021, which would make the EU, as integration, the fourth largest investor in Europe in defence industry research after the UK, France and Germany. The investment program needs approval by both the European Parliament and national capitals (Copper, 2017). If national governments did not pay for procurement and development programmes because defence budgets get short of money, defence companies will produce nothing. International cooperation is possible to joint Russian and Chinese defence producers to invest more money into defence research and infrastructure to produce hic tech technology products and wreck trade barriers for selling arms inside Eurasian defence market. Here, absolutely economic deficit would be minimised to turn up the dynamic curve to expand it. Some minds in Moscow understand that the eventual collapse of the EU (of which it is so fashionable now to speculate among the Russian 'pundits') would be something like 'the greatest geopolitical disaster of the 21st century' and could prompt greater unpredictability in the entire region (Mizin, 2017). After the US intervention from NATO alliance on the EU – NATO states those Heartland relations had been soured. Moscow and Brussels might be willing to formulate and promote a new pattern of interaction without NATO policy and bypass the US pressure without transatlantic sanction to those EU – NATO states by lifting sanction against Russia while they agreed to reconnect historically, economically and politically traditional relations bilaterally again. Officially, Moscow is pleading for reviving cooperation between the EU and Russia, because loose and loose strategy could benefit only to US side. But who is here the looser und who had benefit from collusion with Russia? The situation is still somewhat complicated in 2018, since these European producers that had cooperated with Russian companies into defence sector before sanctions were put into effect, sought to bypass economic sanctions as to hide the facts of traditional cooperation, now some of them are openly violating it behind the back of economic regime. It was applied on the EU states: France, Italy, Austria and Hungary, Bulgaria, and Greece to further cooperate with Russian defence sector into automotive and aviation industry. The US side vowed with harder pressures with more sanctions against this military cooperation whose are continuing to grow but Russia and EU states are much more interested in cooperating together.

4. THE EUROPEAN UNION – RUSSIA DEFENCE COOPERATION

France and Germany reclaimed for more strategic autonomy of the EU into defence policy while German calls more for a European Defence Union (EDU) within European army, like finished integration process but France insisted more on stronger intergovernmental EU defence policy. France wants a symbolic integration process because it wants to preserve good transatlantic relationship whilst the US does not want a strong Europe. Poland follows NATO's policy while defending NATO territory in Eastern Europe and gets involved in possible military intervention in Ukraine against Russia. Poland's worries were about Ukraine and the military threat of Russia, and panicking among critical scenarios like annexation of Crimea, subsequent war fighting and military supply to Donbas's Militia into the Eastern Ukraine. Worries have increased when Russia had deployed ballistic missiles to Kaliningrad military region and carried out joint Russia–Belarus military exercise in 2017, near the border with Poland and Lithuania. Italy was refocused toward the Euro – Mediterranean region to fight against migration gangsters from North Africa and Middle East those are smuggling refuges over the

Mediterranean Sea into Europe by using Italy like transit state in Europe (Keohane, 2018). If we compared this reports of some states, we would find out that the EU states have deep problems as we thought to identify itself into national defence policy. The crisis into national defence policy braked down reintegration process on two different tracks; the first track contributed to disconnect defence integration like to be more interrelated toward European defence union while second track was absolutely disconnected to deeply converse Russian defence policy toward Eurasian defence zone. This policy had failed since 2014, whilst the EU – Russian bilateral relationship was disrupted from economic sanctions against Russian under the US coercive policy in Europe. Economic sanctions did not interrupt commercialization of goods into defence sector from the EU defence companies to bargain with Russian defence firms, only costs had been arisen. Foreign Minister Gabriel condemned national selfishness and declared: "The motto 'our country first' only leads to more national confrontations and less prosperity" (Kirchick, 2017). Germany strongly opposed to Trump withdrawal from Western-influenced multilateralism that forget the US sentiment to neglect common values under NATO alliance. Juncker asserted without hesitation in publicity that the EU could not continue to rely on the USA for its defence and cannot turn to US for its future protection (Scott, 2017). Several countries have expressed doubts on the usefulness of sanctions, including Hungary, Italy, Bulgaria, Czech Republic, and Slovakia; one EU official described the EU consensus on this issue as "not going without difficulty." (Pezard et al., 2017: 59). At most the EU member states asserted a big doubt among effectiveness of economic sanctions and it is only a matter of time when those sanctions will be lifted in one voice of EU council. European states with BRICS economic block may resist against the US dollar diplomacy and keep going to move away from their traditional servility to Washington as been able to stop US blackmailing other states by violating intestate sovereignty. Europe's capitals were confronted with Washington among imposing customs on steel and car industry from Europe, and economic struggle would deteriorate situation in the transatlantic relations. Geopolitical brake down from the EU towards the USA was no longer so remote to postpone misunderstandings. Here is opening new path, Moscow and Beijing are planning to incorporate Europe into their mega Eurasian project as the fourth major component after Asia, the Eurasian Union and the Middle East/Persian Gulf. If Moscow – Beijing economic tandem could rejoin EU into geo economic block to rebuild Eurasian defence sector than US will be excluded from the game.

5. THE EUROPEAN UNION – PR CHINA DEFENCE COOPERATION

The PR China had opened wide door to European military technology to invade into PR China's defence sector since the economic embargo was lifted to transfer advanced military technology. Financial dynamic invested into PR China's defence sector had completely changed situation over the past five years into military modernization process of the PR China's army. Chinese President Xi Jinping has put an end to the practice of making any progress on international security cooperation with Europe conditional on the lifting of the embargo. This is the result of the PR China's arms industry's progress (Duchatel, 2018). The PR China had access to critical technologies that had speed up modernization process for ten years, and beside it had created main conditions for advanced innovation and leadership for the next generations of arms toward C4I updated technology. The PR China had paid off for some advanced hi-tech licensed equipment – those are being incorporated into Chinese military helicopters, ships and submarines, and were needed to speed up modernization process of China army but it seems that the EU thoughts ongoing into direction to prevent all transfers of dual-use technology to the PR China as to protect Europe's critical technology. Chinas economic intensions became doubtful about financial influence to invest more money by spending into common hi tech military projects together with Europe champions into defence sector as the PR China tries to increase pressure by lifting economic barriers to arms transfers and export controls.

The main barrier to deepening of the EU-PR China defence cooperation is the will of NATO allies and especially of the US to preserve sensitive hi-tech military technology, whilst the PR China is still accused for industrial espionage and steeling military patents. Arms control measures among transferring hi – tech military technology to third states could not be secured by NATO protocol of regime export mil technology or under the PESCO projects carried out by the EDA control. The PR China may use hi-tech military projects to benefit itself to modernize own army into all military branches by following up European modernization process under Horizon 2020 projects. The defence companies from the EU shall take decision, if cooperate or not cooperate into the joint EU-PR China defence cooperation. The PR China had pleased the EU member states to fully participate into the Eurasian megaproject and invest more money to rebuild the Silk Road strategy toward the western part of Heartland. This invitation was referred on the defence cooperation too if EU states did not decide for protectionism. It was likely seen that the EU had been stuck between US and PR China's economic influence from foreign geoeconomic investments. The PR China, meanwhile, "is leveraging military modernization, influence operations, and predatory economics to coerce neighbouring countries to re-order the Indo-Pacific region to their advantage," the Strategy declares. And the Chinese military modernization program, it adds, is designed to achieve "regional hegemony in the near-term and displacement of the USA to achieve global pre-eminence in the future" (Morgan, 2018). "The EU and China signed a 'strategic partnership' in 2003, and adopted 2020 strategic agenda for cooperation in 2013. These agreements resulted from a mutual commitment to cooperation and signal an interest to further advance ties" (Dorussen, 2017: 2). Prominent role from EU states those had invested more money into defence sector into foreign business had cemented economic benefit in the PR China defence sector for some EU defence firms, to expand the global market for selling military goods out of the EU market, that became more relevant on global market inside the EU-PR China defence relation. Solidarity and unity were cracked down into one voice while decision making process inside European NATO pillar had been divided into two political blocks. Atlantic hub encountered against European hub for more centrists reproach toward federalization process to form the EU super state. Political dwindling, dividing and disunity (3D) had brought NATO alliance to crack solidarity and unity apart between Europe and the USA, only media black coverage had been disseminating lies into publicity that was everything fine within the EU-US bilateral cooperation under the NATO alliance but this was false flags signal to sweep rubbish under the political carpet. Those political, economic and defence cooperation for 3D reasons had worsened fragility under the NATO alliance. Otherwise, an alternative was opened as China signalled to EU states as to re-join Silk Road strategy on continent. China is willing to invest more money into EU critical infrastructure to reconnect roads and rails guided from Peking to Europe by transiting Russian territory. Why is the EU important for PR China's geoeconomic interests? Truly answer singles out: the PR China wants Europe to counterbalance American power while Europe is a softer partner than the US. The EU is weak, politically divided and militarily non-influential (Hanso, 2017: 125). China plays on the weakest point into the EU fragility while it knows well how to approach with multilateral diplomatic step as Beijing treats the relationship like a game of chess with 27 opponents crowding the other side of the chess board.

6. CONCLUSION

The new relationship between Russia and China is clearly a matter of that will last. If the EU fails to build up an entente inside international relationship to oust US deadly containment strategy against Russia-PR China alliance, than we may predict that Russia and the PR China could potentially form a new defence alliance, the equivalent of a Eurasian NATO that would be a threat to both the EU-US as productive counter balance against the US renewed

containment policy in Europe. The next potential regional superpower which was based on Mackinder's map was China that presented an important constituent part of the world power above the EU, India, and Russia. China's influence had been raised rapidly towards other parts of Heartland with rising economic trend while it had invested more money to interconnect entire Heartland continent via East – West axis. It needs to rebuild the largest economy inside the Asia- Europe vital economic zone to eventually surpass the USA and introduce the petro yuan world currency to emplace the global superpower status. If the EU security concept becomes inappropriate for Russian and Chinese ambitions than both may integrate their plans for a new Silk Road and the Eurasian Union not only grows up economically but gets to activate politically and military, to encounter toward NATO alliance in Europe. If the Eurasian Union is going to be expanded forward to make stronger Russia-China geopolitical axis in Central Asia and Caucasus, then it would be more difficult to restore EU-Russia bilateral ties, by implementing the EU Global strategy.

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INTEGRATION OF AZERBAIJAN FINANCIAL MARKET INTO INTERNATIONAL FINANCIAL MARKETS

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ABSTRACT

Globalization has increased the capital mobility in the world. Increasing opportunities for investors to maximize portfolio returns is one of the greatest benefits of globalization. Financial liberalization has also provided investors with opportunities to diversify their risks. Parallel to this, integration in terms of an effective portfolio management has taken its place among the most discussed topics in the finance literature. Integration efforts in the world financial markets change financial instruments and institutions at increasing speed. Within the framework of this change, foreign investors are investing in many countries' financial instruments in order to diversify their portfolio, resulting in similar trends in price movements. These increase trends in capital mobility provide several advantages, but also some disadvantages. The Azerbaijani financial market, which is in the development phase, has become a share of this investment after 2000s. These rapid developments in international financial markets also affected the Azerbaijan financial market and entered into a process of integration with world markets. Despite its disadvantages to banking and other financial institutions the economy of Azerbaijan, which is in the process of development, provides various benefits from this integration process and significant improvements ın the growth rate. This study is a research on how integrated countries similar to Azerbaijan and Azerbaijan's countries with high foreign trade rates are integrated into world markets. As a result of the research, it was observed that the integration of the financial markets of the countries that similar characteristics in terms of development with Azerbaijan was in an increasing trend.

Keywords: *Correlation, Economic growth, Financial integration, Financial markets, Globalization*

1. INTRODUCTION

Financial markets that provide fund exchange by bringing together the fund suppliers and fund seekers provide benefits to the national economies by increasing national income, spreading savings and ownership to the base, establishing a risk-return balance and increasing the scale of firms. Integrated markets offer both investors and fund-seekers opportunities in terms of securities diversification, cost reduction, risk and return. The purpose of investors to invest in international markets is to take advantage of portfolio diversification, reduce the total risk of their portfolios to keep them at a rational level and to achieve maximum return at minimum risk level. The aim of this study is to investigate the benefits of the international financial integration of the Azerbaijani financial markets and to help them minimize the risks and maximize their returns by providing the investors with information about their international portfolio diversification.

2. FINANCIAL SYSTEM

The financial system consists of the markets where the fund surpluses come together with those who have a fund deficit for the investment they will make. In general, the basic elements of the financial system; fund providers, fund seekers, financial institutions, financial instruments and legal-institutional arrangements. Within this system, the owners of the system make money available to those who demand funds by means of various means and intermediaries and in the

confidence environment provided by legal institutional arrangements. (Afshar, 2007; referenced by Charles 1987, p.188).

2.1. Azerbaijan Finance System

Until 1991, when the Soviet Union became a part of its independence from the 1920s, Azerbaijan's economy had always been more advanced than the Armenian and Georgian economies. After regaining its independence, a long period of transition from the control economy to the market economy has been linked, and within the framework of the reforms, the country's financial system has entered a structured process similar to that of the developed countries. (Güven, 2012; p, 103)

2.1.1. Baku Stock Exchange

Establishment of stock exchanges in Azerbaijan began with the creation of state debt instruments in 1996. In the same year, the Ministry of Finance announced the withdrawal of the first treasury bonds with an interest rate of 5 million manat (about one million dollars) and an annual interest rate of 31.8%. In 1999, the State Committee for Securities began to create basic mechanisms for the development of the securities market (Mammadov, 2013; p, 16). It is difficult to attract institutional investors to the stock since the number of individual investors and the number of registered traders in the Baku stock exchange are very small and many capital transactions outside the stock market. Currently, the main currencies, which are traded on the stock exchange, are USD Dollars, Euros and Russian rubles. However, 98% of the market is USD dollar. (Ataşov, 2016; p, 36)

3. FINANCIAL INTEGRATION

Financial integration is a topic of concern for all countries in the contemporary economics and finance literature. After the liberalization of the local markets, the financial integration process accelerated with the development of the Euro-markets since 1960. Financial integration is associated with the economic development of the era after the Second World War. Conceptual discussions are taking place in the literature. There are definitely different definitions. The broadest definition of financial integration was issued by the European Central Bank (ECB); "The application of equal rules for the purchase and sale of financial instruments, equal access to financial services and products, and the same attitude to the participants of the financial markets" (Özbek, 2004; p, 143.). Integration of local financial markets is possible in three ways:

- It is possible for citizens to borrow from foreign markets and to invest in foreign markets at local markets.
- Citizens' ability to invest in foreign markets, and the ability of foreigners to borrow from local markets.
- It is possible for local residents to establish debt and investment relationships in foreign currency, for example, to open accounts with local currencies in foreign banks and receive loans in foreign currency. (Kreiken, 2017; p, 7.)

3.1. Benefits of Financial Integration

Financial integration creates two useful opportunities for developing investments and diversifying risk. Here are some of the benefits of financial integration:

3.1.1. Increasing the Opportunities for Borrowing from International Markets and Risk Diversification

One of the most significant gains in financial integration is the ability to borrow from international markets and take advantage of opportunities to diversify risks through increased foreign exchange rates after the increase in financial liberalization.

Together with private investors, domestic banks can lend both to foreign markets and lend their debt to the markets, which leads to increased effectiveness. (Stavarek, 2014;p, 6)

3.1.2. The Impact of Economic Growth, Investments and Consumption Quantity

Financial liberalization, which has the ability to regulate international resources, boosts local investment and economic growth. The growth of financial integration rates of many developed and emerging economies has resulted in increased borrowing from international markets, increased local investment and savings. The growth of investments, in turn, has had a positive impact on economic growth. In general, the increase in investment and savings across the country leads to the growth of the economy and the growth of living standards (Stavarek, 2014;p, 7).

3.1.3. Increasing the Effectiveness of the Banking System and Financial Stability

Together with financial liberalization, foreign banks' access to local markets, along with increasing the depth of financial markets, also significantly reduces operating costs. The studies made so far show that foreign banks' access to local markets has led to a rise in service quality, increased competition among banks, and a substantial decrease in their profits (Stavarek, 2014;p, 7).

3.2. Financial Integration Risks

Research done in the last quarter of the century shows that, with the benefits of fiscal integration, there is a cost that can not be ignored. As is known, capital mobility is not equally distributed to all countries. In this case, the capital flows that intensively enter into some countries, and some countries have a financially open economy, but they are not. There are some risks of financial integration in view of these statements (Yang, 2012; p, 12).

3.2.1. Non-Equity Sharing of Capital Flows

When it comes to capital flows, it is seen that not all investments are equally accessible to financial institutions. Thus, achieving the desired outcomes through financial integration is strengthened. As a result, low-income countries are less likely to share capital investment. Failure to borrow from foreign markets during economic stagnation minimizes the benefits that countries want to gain from financial integration (Yang, 2012; p, 12).

3.2.2. Non-Equitable Distribution of İncreased Capital Flow in the Country

In addition to the importance and benefits of capital gains in the country, the use of these investment inputs for low-end investments later in the year creates problems and minimizes the positive effects of increased investment movements on economic growth. If the capital flows are not integrated into the right places, the country's economic growth figures may adversely affect the country's macroeconomic stability (Yang, 2012; p, 13).

3.2.3. Exposure to Macroeconomic Stability

Capital flows can sometimes cause unwanted adverse effects on the economy. The rapid growth of investment in countries is reflected in the increase in the amount of money available in the markets and the impact of this on high inflation. At the same time, the negative balance in the floating exchange rate economies is rising and this leads to the loss of local currency (Yang, 2012; p, 12).

4. INTEGRATION OF AZERBAIJAN FINANCIAL MARKET INTO INTERNATIONAL FINANCIAL MARKETS

Significant progress has been made in the last 20 years both in terms of both developed and emerging economies. In particular, the integration of European Union countries has significantly increased. Diversification in international stock markets has allowed the portfolio investor to significantly reduce the risk of diversification in local markets. Because, at this time, the investor will gain income the lowest level of risk. In line with the purpose of this study, we tried to obtain the closing prices of the shares of the companies listed on the Baku Stock Exchange to determine the relations of the Azerbaijani financial market with both the EU countries and the world countries. However, due to the late creation of stock markets and the development of the financial market in the country, these figures were not achieved. For this reason, the figures of developing countries such as Azerbaijan were used to study the relationship between the Azerbaijani financial market and world markets.

4.1. Data and Method

During the study, the data used dependent and freely varying are stock indexes with dollar closing traded prices. Monthly closing figures for the years 2010-2017 have been used as the data interval. The information is available at www.investing.com. The data covers 8 countries (USA, England, Germany, France and Japan) as well as developing countries (China, India and Turkey). When countries are concerned, the countries that high trade balance with Azerbaijan are pre-eminent, especially in countries with high trade balance in the oil sector. Despite the high turnover with Italy at the time of overseas trade balance, this country was not included in the analysis as it was not possible to obtain monthly closing prices for the period covered by the survey. S & P500 for USA, NIKKEI 225 for UK, UK FTSE 100 for UK, CAC 40 for France, DAX GERMANY for Germany, SP BSE SENSEX for India, HANG SENG for China and BIST100 for Turkey was used. The closing prices for these 8 indices are 96 months. Correlation coefficient method was used as the method of analysis in the study. With this method, monthly earnings per share were calculated and correlation coefficients were obtained with the help of these revenues. Correlation coefficients are calculated using Ewievs8 program. The correlation coefficient is used to determine the degree of correlation between the two variables. Although these coefficients can determine the extent to which the changes between two variables are appropriate, it is in no way a cause-and-effect relationship. Correlation coefficients range from -1 to +1. The coefficients of the strength of these coefficients are as follows:

- 0.00-0.25 - Very weak contact
- 0.26-0.49 - Poor connection
- 0.50-0.69 - Medium connection
- 0.70-0.89 - High contact
- 0.90-1.00 - Very fast contact

The study included data on the analysis period and eight countries with foreign trade turnover with Azerbaijan. These 8 countries represent developing countries as well as developed countries according to their level of development.

5. CONCLUSION

In general, the monthly closing figures of the 8 countries included in the study are similar apart fromTurkey and India. However, by looking at the monthly closing prices of these indices, it is not possible to determine which market is affected by the market. Correlation coefficients were determined to determine the relationship between these indices included in the study. The correlation coefficients between these indices are as shown in the following table**.**

Table 1: Correlation Matrix

	France	India	Germany	England	China	Japan	USA	Turkey
Turkey	0.00	-0.02	0.04	-0.01	0.02	0.01	-0.03	1.00
USA	0.87	-0.03	0.79	-0.01	-0.02	0.00	1.00	-0.03
France	1.00	0.01	0.74	0.01	0.03	-0.14	0.87	0.00
India	0.01	1.00	0.03	-0.01	0.01	0.01	-0.01	-0.02
Japan	-0.14	0.01	-0.04	-0.02	-0.18	1.00	0.00	0.01
Germany	0.74	0.03	1.00	0.01	0.01	-0.04	0.79	0.04
England	0.01	-0.01	0.01	1.00	-0.01	-0.02	-0.01	-0.01
China	0.03	0.01	0.01	-0.01	1.00	-0.18	-0.02	0.02

The moderate correlation coefficient for investors is more desirable than the high level. Because low-grade correlation coincides with those that have not yet integrated. The correlation coefficient indicates a strong and highly positive relationship, which means that inter-market integration is relatively high. As can be seen from the correlation matrix in the table above, can not be mentioned about a strong relationship apart from US, France and Germany. According to the table, the highest correlation coefficient is in the United States and France, the world's largest stock market. Other highest coefficients were recorded between the US and Germany, Germany and France. The main reason for these high correlation coefficients is that they enter the same unit as the European Union and have high commercial relations with the US, similarity of production and consumption favors, high income levels, and other economic events. However, it is not possible to say which countries' financial markets are affected by the correlation rates. That is, it is impossible to identify the affected country and the affected country by the correlation matrix. In this case, the United States is acting in the same way as the indices of both countries and this does not allow investors to diversify their portfolios. When we look at the table, the lowest correlation rate is calculated 0.01 (France and India, Turkey and Japan, France and England). Other low coefficients 0.02 (Turkey and China) and 0.03 (Germany and India) were calculated. When it comes to attention, lower coefficient rates are more common between India and Turkey and other countries. The main reason for this is that India and Turkey are developing countries, low income levels, differences in industry structure and so on. Looking at the table, some correlation coefficients are seen as negative. For example, Turkey and the United States, Japan and France. The negative coefficients are a sign that relations between countries are inversely oriented. For example, any crisis in Turkey has nothing to do with the US economy. In this case US markets have become more attractive for investors. In general, the relations between developing countries and developed countries are positive, but they are poorly correlated. This is a good solution for investors. In this case, portfolio managers will be able to minimize their risk by diversifying the risk of portfolio stocks by seeing that a country's economic stagnation does not affect other countries. As a result, the increase in correlation coefficients between financial markets reduces the benefits of diversification. The main reason for this increase can be the lack of incentives, mobility, free trade, and a global structure of companies. Taking all this into account, investors are better off developing countries than in developed countries, where correlation coefficients are lower. Lower correlation rates can lead to a reduction in the total risks of the portfolio. This will mean getting more income for the investee. Because markets that have low correlation rates can neither grow nor enter the crisis period.

When international financial integration is assessed for Azerbaijan, the development of the financial markets and its integration with the international markets creates conditions for risk sharing, along with allowing domestic investors to evaluate their portfolios in foreign markets. At the same time, with the help of financial integration, the country becomes an attractive country for foreign investors. Together with this, the national income figures per capita will increase in the country, and the standard of living will increase.

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HUMAN CAPITAL DEVELOPMENT & ECONOMIC GROWTH: AN EMPIRICAL STUDY ON JORDAN

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ABSTRACT

This study examines the effect of human capital on the average productivity of workers in Jordan employing the ordinary least squares (OLS) method to the data ranging from 1980 to 2014. The results showed that there is a positive and statistically significant effect of human capital development (HDI) on the average productivity of Jordanian worker (RAPL). The study concluded with a number of recommendations, the most important of which is that this study is the introduction to many more detailed future studies and aims at the relationship between the human development index and its components education, health and income. The study also recommends that more efforts be made to address health, education and cognitive skills and to improve the level of income distribution in order to increase human productivity.

Keywords: *Human Capital Development, Average Productivity, Economic Growth, Human Development Index, Jordan*

1. INTRODUCTION

Economists have long emphasized the importance of human capital development in achieving economic growth. In his famous book "The Wealth of Nations", Adam Smith states that all the acquired and beneficial capacities of other members of society are a cornerstone of the concept of fixed capital, The ability to acquire learning abilities is accompanied by financial costs, yet these talents are an important part of the individual's wealth, which in turn is a major part of the wealth of the society to which he belongs. Alfred Marshall A. Marshall emphasized the importance of investing in human capital as a national investment, and considered that the highest types of capital are the capital that invests in man, as the backbone of human development in its different dimensions (Todaro& Smith, 2015). By means of man, nations advance, and the economy itself is of limited value if it is not exploited for the sake of progress, by the human forces that transfer wealth from mere quantities to various technological energies to achieve the desired progress. Investment in human capital is at the forefront of the issues addressed by societies in different systems and levels of growth. It has proved that the human element is no longer only a component of production and determinants of productivity. It is the main factor in all components of human development. The importance of human development as human investment is the best form of investment because it is the firm and sound foundation for building a healthy and socially and economically viable society. Jordan realized early on that investing in human development is a long-term strategic investment that can drive the overall development. The main pillar of the national achievement equation is the qualified and trained human being. Jordan is suffering from a clear shortage of natural resources, but it has a human resource capable of achieving the desired development to compensate for the scarcity of natural resources. Thus, both education and health in Jordan received great attention from the government to promote economic and social development in the Kingdom, which has improved the reputation of education and health services during the past two decades, and

increased demand for Jordanian human resources abroad, especially in the Gulf States. Human development includes improving human conditions through health, education and income, and human development considers economic development a necessary and not sufficient condition. Jordan is considered a unique situation in the Middle East in terms of economic and political crises, as well as the characteristics of Jordanian society, which pose a significant challenge to achieve the desired balance between resources and human beings and thus in the light of the scarcity of natural resources in Jordan and not to exploit them optimally, Jordan is a human resource capable of producing the desired development to compensate for this to restore balance. This study attempts to answer a question. What is the relationship between human capital development and Average worker productivity? This study aims to investigate the impact of human capital development on Average worker productivity in Jordan during the period 1980-2014, and test the hypothesis of the relationship between the human development index on the one hand and the economic growth in Jordan on the other hand. The study draws on its importance as one of the rare studies that examined the impact of human capital development on economic growth in Jordan, using a new methodology to achieve the objectives of this study, and proposing recommendations to decision makers for their use in planning and decision making. The importance of this study stems from Jordan's interest in promoting itself as a country with a comparative advantage in the availability of qualified human capital, which leads to increasing demand for Jordanian labor abroad and enhancing the attractiveness of foreign investment in Jordan.

2. PREVIOUS STUDIES

The interest in human capital development as an end and a major source of economic growth has become an urgent need for all countries, especially those lacking economic resources. Despite the large number of international studies in this field, there are few studies at the regional and local level that dealt specifically with the relationship between human capital development and economic growth. Most studies have examined the impact of investment in human capital on economic growth. At the international level, Lucas (1990) emphasizes the importance of human capital accumulation in achieving economic growth, and Romer (1990) suggests that human capital can positively and directly affect productivity by enhancing economies' ability to innovate new technologies. In the Barro (1994) study of 98 countries, the results of the study showed a positive correlation between the increase in the number of students enrolled in schools and the increase in per capita GDP. In the study of Chuang (2000), which examines the causal relationship between human capital accumulation and exports and economic growth in Taiwan, results show that the accumulation of human capital promotes economic growth and stimulates exports, while exports promote long-term growth by accelerating capital accumulation Thus, the Taiwan case study supports the theory of internal growth based on human capital and the premise of export-led growth. Safdari et al. (2010) examined the impact of human capital on the economies of 104 countries during the period 1980-2005. Human capital positively and indirectly affects economic growth through the rapid transfer and resettlement of technology from abroad, while human capital positively and directly affects economic growth through local innovation. The Hanushek (2013) study, which covered a number of developing and developed countries during the period 1981-2008, showed that developing countries have made significant progress in bridging the gap between them and developed countries in terms of educational attainment and enrollment (Educational Quantum), but It was less successful in bridging the gap between it and developed countries on the quality of school education and the development of cognitive skills (Educational Type). The study also found that if developing countries can not improve the quality of education, they will find it difficult to improve long-term economic performance. In the Jozicic (2016) study of Croatia, the study aims to determine human capital in Croatia and indicates the human capital factor in

Croatia. In this study the human capital quality is determined by the quality of the education system and investment in education. The results showed that the investment in human capital in Croatia is insufficient investment and the Croation public expenditure on education in 2011 amounted to 4.16% of GDP, which that Croatia is placed below the average of OECD countries which amounted in average of 6.1% or to EU countries 5.8% of GDP. Mariam (2017) examine the role of human capital in improving the competitiveness of the firms in Algeria, and the relationship between the human capital and firm competitiveness. The study case was on three insurance companies and to achieve the goal of study a questionnaire was distributed and interviews were done in the chosen companies, the result was statically analyzed by SPSS program, the findings show that the role o human capital is apparent in improving the competitiveness of insurance company. At the local level, a few studies have been conducted on the relationship between economic growth and human development components, such as measuring the impact of education on economic growth, analyzing the impact of human capital on exports and economic growth, and examining the nature of the relationship between population growth and economic growth. One of these studies was the Al-Tal study (1991), which aimed to measure the impact of education on economic growth in Jordan (1971-1988) using Schultz and Denson, and found that the effect of education was positive in the primary and secondary stages and negative impact in the upper stage using the Schultz model. The results showed that the contribution of the basic and higher stage was positive and the secondary stage was negative due to the widespread unemployment among secondary and university graduates due to the inability of the economy to absorb the outputs of education. By examining previous studies, it did not specifically address the impact of human capital development on economic growth, but rather the impact of certain elements of human development, such as education, health, human capital, and population growth on economic growth. While some studies have shown the positive and obvious impact of the human factor on economic growth, some studies have shown the need for more human development efforts to reach the desired economic growth through the role of human capital may play a larger role and shorten the time by positively influencing growth Economic development by focusing on the quality of education, technology transfer, localization, and innovation focus. In addition, local studies did not address the human development indicators of the United Nations in studying their relation to local economic growth. This study has distinguished from other studies that it dealt specifically with the impact of human capital development on Average worker productivity in Jordan, and used the Human Development Index as a representative variable for human capital development, And the real productivity of the Jordanian worker as a representative variable for economic growth in Jordan.

3. HUMAN DEVELOPMENT IN JORDAN

Human development is an important issue in Jordan, on which further economic growth depends. Recent decades have seen tangible progress in the areas of health and education and improved average per capita gross income. Countries are classified according to the Human Development Index to three levels:

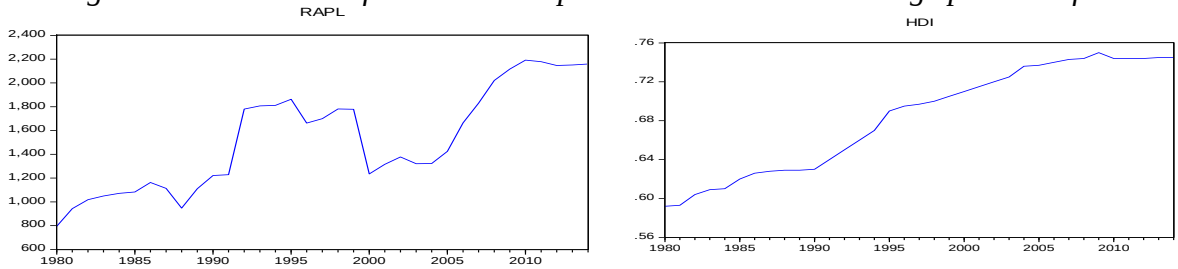
1. High human development, with the human development index (0.8-1.0).
2. Medium human development, with a human development index (0.5 - 0.799).
3. low human development, with a human development index of less than (0.5).

The human development index [1](HDI)measures the level of economic and social development of countries based on criteria relating to education, health and the level of per capita income (Todaro and Smith, 2015). Its value is determined on the basis of the arithmetic mean of three indicators that reflect the quality of life experienced by citizens in a country.

[1]HDI = (1/3) [HI + EI + II]

These indicators are the health index (HI), the education index (EI) and the income index (II). The United Nations Human Development Reports (HDI) showed a steady improvement in the HDI in Jordan, where the HDI was 0.59 in 1980, and the index rose slightly in 1990 to 0.62, (0.74) in 2014. Despite this steady improvement in the value of the index, Jordan's ranking in the human development ladder has declined in general. It was ranked 70th in 1990 and ranked 100th in 2013, and in 2014 Jordan's ranking in the Human Development Report provides 23 positions to rank 77th globally. The result of the decline in Jordan's ranking during the period 1990-2013 can be explained in spite of the fact that the HDI has improved as an absolute value as a comparative indicator, as other countries may have taken faster steps in improving the human development levels of their peoples than domestic ones. Annex (2) shows that the general trend of the Human Development Index and the Education, Health and Income Index in Jordan during the study period. With regard to the human development index, many criticisms have also been made. Some believe that the relationship between the components of the index itself is objected to their inclusion in a single composite index. Some may cancel the effect of the other, and the correlation between the indicators is high. With the exception of the income index, the other indicators are long-term and their impact in the short term (human development report, 1995).

Figure 1: the timeline of human development index and real average product of labor



Source: The researcher's calculations based on the data in Annexes 1 and 2.

Figure (1) shows that the general trend of the HDI index is rising steadily during the study period. The RAPL index is fluctuating during the study period. This is because the rate of increase in real Jordanian GDP for some years of study Less than the rate of increase in the number of employees, in addition to the impact of structural adjustment programs (SAP).

4. DATA SOURCES AND STUDY MODEL

4.1. Data sources and diagnostic tests

The study is based mainly on the official Jordanian statistical data published by the Department of Statistics, the annual publications of the Central Bank of Jordan, the annual reports issued by the Jordanian Ministry of Labor, the Jordanian Ministry of Education, the Jordanian Ministry of Health, the Ministry of Planning, as well as World Bank publications and the United Nations Development Program (UNDP). In this study, the descriptive and standard methods were used. Diagnostic tests were carried out to use the appropriate standard model to analyze data during the study period (1980-2014). These diagnostic tests include the stationary unit root tests (the augmented Dicky Fuller test and the Philips Peron test), the Multicollianarity test, the Autocorrelation test, the Hetroscedasticity test, the stability tests (Cusom Test and Cusom Square Test), and the Ordinary Least Square method (OLS) was used as a standard analysis tool.

4.2. Study model

For the purposes of this study, the average income criterion for measuring economic growth (as mentioned earlier in the theoretical framework of the study) will be used by dividing the real

GDP on the number of labors in Jordan (RAPL) as a proxy variable of economic growth, and The Human Development Index (HDI) will be used as a proxy variable of human capital development in Jordan. Based on what was put forward in the theoretical framework of the study, and using the writings of many researchers in this field, the study used the Modified Solo model with MRW methodology (Mankiw, Weil, Romer) to measure the mutual impact between human development and its components and economic growth in Jordan. Modified Solo model with MRW methodology was adopted because it relies on the hypothesis that human capital accumulates with the same technique of physical capital accumulation, allowing it to be expressed in physical units rather than in units of time. By analogy, the study relies on the hypothesis that human development accumulates with the same capital accumulation technique Material. The Solo model indicates that the volume of production (Y) is determined by the factors of production (L) and capital (K) according to the equation:

Y = F (K،L)……..(1)

By dividing the two sides on (L), the equation becomes as follows:

Y/L = F (K/L)……..(2)

Whereas:
Y/L: The average productivity of the Jordanian labor(APL).
K/L: Average Jordanian labor Share of Capital.

In order to analyze the impact of human capital development on economic growth in Jordan, the Human Development Index (HDI) will be added to Equation (2), based on the hypothesis that human development will accumulate in the same technique as the accumulation of physical capital.

In accordance with Modified Solo model with MRW methodology, the equation is as follows:

APL = Y/L = F (K/L ، HDI)……..(3)

Since the study is based on the real values of the model variables attributed to the price index (CPI), the previous equation becomes as follows:

RAPL = F (RK/L ، HDI)……..(4)

To estimate the model used in equation (4), the following mathematical formula will be used:

RAPL = α + β (RK/L) + γ HDI + U……..(5)

Where:
RAPL: real average product of labor (proxy variable of economic growth)
RK/L: average labor share of real capital.
HDI: human development index (proxy variable of human development).
α ، β، γ: model parameters.
U: random error.

In order to understand these variables, they need to be further clarified. One of the important indicators that reflects the economic growth rate is the RAPL.

For the purposes of this study, the real average productivity of the Jordanian labor was used as a sign of economic growth in Jordan, The average productivity of the Jordanian labor (RAPL) is calculated by dividing the real gross domestic product (RGDP) by the number of labors (L) multiplied by 100, and can be represented by the following equation:

$$^{2}\mathbf{RAPL} = \frac{RGDP}{\#\ labors} * 100 \ldots\ldots\ldots\ldots\ldots\ldots \textbf{(6).}$$

Annex (1) shows the real time productivity of the Jordanian labor.
Many studies have used this indicator as a representative variable for economic growth, including Talafheh (1989) and Al-Mansi (2013). This index falls under the criterion of average income, which is one of the most widely used and most reliable standards when measuring the level of economic progress in most countries of the world. However, there are many problems and difficulties faced by developing countries to obtain the correct figures that represent real income per capita, and whether we divide the total national income on the whole population or divide it into the working population only. The calculation of income for the whole population benefits from consumption, others are useful in terms of production (Ajamia and Nazif, 2000). With regard to the accumulation of capital and the role of investments in the economy, the Harrod-Domar model considers that new investments are compensated for the loss of financial assets in the community and are therefore a key factor in economic growth. To enable these investments to emerge, the community must save a sufficient proportion of its income for these investments. The model indicates that the main factors on which national income growth depends are the marginal tendency of savings and capital productivity represented by the average worker share of real capital.[3]ICOR was used to estimate this variable as shown in Annex 3. And also the relationship between the human development index (which measures human development) and economic growth can be illustrated as follows: Human development leads to innovation and creativity in various fields, thus increasing productivity, improving employment opportunities and achieving higher rates of economic growth and health of community members. If those innovations and creativities are exploited in the form of practical applications, thereby improving the level of economic well-being at the community level as a whole.

5. RESULTS OF STANDARD ANALYSIS

In order to test the hypotheses underlying the study, the diagnostic tests were performed to determine the appropriate standard models, and then to analyze these models using the OLS method. According to Gauss-Markoff's theory, OLS gives the best linear unbiased estimators Provided that standard models are free of statistical problems (Gujarati, 2003).For the purposes of this study, the statistical package (E views 9) was used. The results of the diagnostic tests showed that the standard model used to investigate the impact of human capital development on the average productivity of Jordanian labor is stable and stationary at the first difference, as shown in Annex 4,And does not suffer from the problem of multiple-line (Multicollianarity) as shown in Annex (5), does not suffer from the problem of autocorrelation, and the model is free from the problem of the lack of stability of the discrepancy of errors (Hetroskedasticity) as shown in Annex (6) ,The parameters of the model are highly stable over the period of study, as shown in Annex 7, and therefore the OLS method has been used as a standard analysis tool.

[2]This means productivity at the level of the gross domestic economy.
[3]Capital (K) was calculated in the Jordanian economy using the ICOR method by dividing the total net real gross capital formation during the study period by the difference in real GDP between the last year of the study and its first year, and then multiplying this percentage in GDP for the first year, The estimated capital in the economy is produced during the first year, and by adding the net capital formation for the first year to its estimated capital, the estimated capital is generated in the second year. The process continues by adding the net capital formation of any year to its estimated capital in the subsequent year, and so on.

The OLS conditions are now available to provide the most efficient linear estimates Unbiased for parameters. Since the model variables are stable and stationary at the first difference, equation (5) becomes as follows:

D(RAPL) = α + β D(RK/L) + γ D(HDI) + U……..(5-A)

For the purposes of this study, Dummy Variables were used as representative variables for structural adjustment programs (SAP), these are relatively modern policies whose origins were linked to the bursting of the external debt crisis that swept through developing countries in 1982. They can be defined as a set of economic measures recommended by the International Monetary Fund and the World Bank aimed at stabilizing the economy by addressing financial distortions (2003). These policies were applied to the Jordanian economy in 1989 and 1990 as a result of the financial crisis of 1988, which led to the decline of the Jordanian Dinar exchange rate, 2000 and 2001 due to the rapid privatization shift, and the years 2008 and 2009 Due to the effects of the global financial crisis and its repercussions on Jordan and the region, and in 2013 by the Syrian asylum crisis. And the impact of structural adjustment programs (SAP) on the variable D (RAPL) and independent variable D (RK / L) was dropped. Therefore, the final form of mathematical formula, which will be subject to statistical estimation as follows:

D(RAPL) = α + β D(RK/L) + γ D(HDI) + Dum*D(RAPL) + DUM* D(RK/L) + U……(5-B)

Using the OLS method, the results obtained were as follows:

Table 1: The results of the standard analysis of the impact of human capital development on the average productivity of the Jordanian labor

Dependent Variable: D(RAPL) Method: Least Squares Date: 09/29/18 Time: 00:29 Sample (adjusted): 1981 2014 Included observations: 34 after adjustments				
Prob.	**t-Statistic**	**Std. Error**	**Coefficient**	**Variable**
0.0328	**-2.241722**	**18.45408**	**-41.36891**	**C**
0.0000	**8.273971**	**0.039497**	**0.326798**	**D(RKL)**
0.0867	**1.773379**	**2522.249**	**4472.903**	**D(HDI)**
0.0034	**3.195683**	**0.376244**	**1.202356**	**DUM*D(RAPL)**
0.0015	**-3.514698**	**0.106084**	**-0.372854**	**DUM*D(RKL)**

40.13822	**Mean dependent var**	**0.837316**	**R-squared**
161.7589	**S.D. dependent var**	**0.814876**	**Adjusted R-squared**
11.45841	**Akaike info criterion**	**69.59839**	**S.E. of regression**
11.68288	**Schwarz criterion**	**140474.1**	**Sum squared resid**
11.53496	**Hannan-Quinn criter.**	**-189.7930**	**Log likelihood**
1.896487	**Durbin-Watson stat**	**37.31480**	**F-statistic**
		0.000000	**Prob(F-statistic)**

Estimation Equation:

==========

D(RAPL) = C(1) + C(2) * D(RKL) + C(3) * D(HDI) + C(4) * DUM * D(RAPL) + C(5) * DUM * D(RKL)

Substituted Coefficients:

==========

D(RAPL) = -41.3689089819 + 0.326797665562 * D(RKL) + 4472.90323563 * D(HDI) + 1.20235552554 * DUM * D(RAPL) - 0.37285377891 * DUM * D(RKL)

Table (1) shows that the estimated parameter value of the variable of the Jordanian worker's average share of capital (RK/L) was positive. The increase of (RK/L) in one unit will increase the real average productivity of the Jordanian worker (RAPL) by approximately 0.33 units , With the stability of the other factors, and the effect of the average Jordanian share of capital (RK/L) is significant at the level of (1%) as shown by t-statistic, This means that there is a positive and statistically significant relationship between the average Jordanian worker's share of the capital and the real average productivity of the Jordanian worker. The results also indicate the positive impact of the HDI on economic growth. When the human development index (HDI) increases one unit, the average real productivity of the Jordanian worker (RAPL) increases (4472.9) unit, Since the Human Development Index (HDI) is between (0-1), the increase in the human development index (0.1) increases the average real productivity of the Jordanian worker (447.29) units (JD). And the impact of the HDI is statistically significant, as shown by the t-statistic. This means that there is a positive and statistically significant relationship between the HDI and economic growth represented by the real average productivity of the Jordanian worker (RAPL), This confirms the validity of the hypothesis from which the study was launched, which states that there is a positive impact of the human capital development on the productivity of Jordanian worker and thus on economic growth as a whole. The value of the (R^2) indicates the amount of independent variables interpreted by changes in the dependent variable (RAPL) and that the explanatory capacity of the model is (83.7%).As the adjusted (R^2) value indicates, 81.4% of the change in RAPL can be explained by a change in the independent variables of the model (Equation).The result of the F-statistic test showed that the model as a whole has statistical significance at the level of 5%. The calculated F-statistic value was 37.3, which is relatively high. Just as the model is free of autocorrelation, the [4](DW) value is 1.896487, and this value approaches 2.

6. DISCUSSION OF FINDINGS AND RECOMMENDATIONS

In this study we discussed the relationship between human capital development and the average productivity of the worker in Jordan during the period 1980 to 2014. The results of the standard analysis showed that there is a positive effect of the human development index on the average productivity of the worker in Jordan. This means that the model used is consistent with the theories that the study was launched, and this result is logical because production processes in the Jordanian economy depend on qualified and trained workers rather than on advanced technology and capital, where the production method in the Jordanian economy is labor intensive (Labor Intensive Technology).The results of this study are consistent with the results of many previous studies on the impact of human capital accumulation on economic growth, whether such studies are universal such as Barro (1994), Hanushek (2013) and others, or regional studies such as the study of Khatib (2005), Sabki(2014), or local as the study of Al-tal (1991) and the study of Zoubi and Al- tal (2003).The results of the study indicate that Jordan can be classified in terms of human development during the study period at a moderate level of human development, despite the steady improvement in the value of the indicator. However, Jordan's ranking in the overall human development ladder has declined. Based on the findings of this study, it recommends that future studies be undertaken at the sect oral or intersect oral level, as it addressed human development and its impact on economic growth without investigating the impact of the sector to which the worker belongs (industry, agriculture, services). The study also addressed the reality of one country in the Middle East, therefore Regional or inter-country studies are recommended, And that this study should be the reason for more detailed future studies, and that the studies should focus on the nature of the relationship between human development and its components (education, health and income) and economic growth in Jordan.

[4]To ensure that the model is free of autocorrelation, Breusch-Godfrey serial correlation LM test was used as shown in annex 7.

The study also recommends that further efforts be made to address the qualitative aspects of health, education and cognitive skills, to promote innovations and to improve justice levels in income distribution, in order to increase human productivity and improve the value of the indicator.

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EKOLOGICAL AND ECONOMIC ASPECTS OF THE USE OF NATURAL RESOURCE POTENTIAL IN SUSTAINABLE DEVELOPMENT OF THE REPUBLIC OF AZERBAIJAN

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ABSTRACT

The article analyzes the current ecological and economic situation of the natural resource potential of the Republic of Azerbaijan. One of the key issues within the framework of the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018" is to achieve ecological and economic balance. For this purpose, the important part of the Republic's environmental policy is to protect the existing ecosystems to meet the needs of present and future generations. One of the key factors for sustainable development is the protection of the environment and the solution of environmental problems. Thus, some of the provisions proposed in the 21st century are related to the protection of the environment and the rational use of natural resources. In order to ensure sustainable development in our country, it is important to utilize complex minerals and primary raw materials. Continuous increase in the number of population, rapid development of science and technology also increases demand for raw materials and products. The complex utilization of natural resources has already been formed in relation to oil and gas. Its economic assessment and stimulation are fully implemented. Certain institutional measures have been taken to ensure the systematic management of the environment and natural resources in accordance with the principles of transition to sustainable development. The most obvious example of this is the creation of the Ministry of Ecology and Natural Resources in Azerbaijan. The article considers the mineral resources resources, the ecological and economic aspects of their use, and the environmental impact dimensions. Sustainable development has been highlighted in the future use of fuels and ore sources. It was noted that limited land, water and forest resources of our republic should be utilized and recultivation and reclamation measures should be taken to eliminate environmental damage. Measures are taken to ensure environmental sustainability in accordance with the main objectives of the "Azerbaijan-2020: A Look Into Future" development concept. Sustainable development is a development that ensures the needs of the present day without endangering the possibilities of future generations. The ecological and economic aspects of this development include the oceans and seas, climate change, environment, waste management, ecosystems and biodiversity. Effective and comprehensive use of our country's natural resource potential, including biodiversity conservation, neutralization of the negative impact of the fuel and energy complex on the environment, restoration of useless areas and the effective protection of existing resources, will continue in the coming years as well. Ecological and economic aspects of the use of natural resource potential in sustainable development of the Republic of Azerbaijan.

Keywords: *resource, potential, environment, sustainable development, conditions*

1. INTRODUCTION

The favorable natural-geographical location of the Azerbaijan Republic created conditions for having rich natural condition and resources.

The countries' various natural resource potential, the development and the situation of production and social infrastructure, useful transport, geographical position, the efficient organization of territory are very crucial. In respective development, the improvement, expansion, and reconstruction of economic and territorial structures of the economy are of great strategic importance. According to researches, in addition to the natural environment and other factors that contribute to the economic and social development of the country, inequality in setting a resource potential has created a sharp difference in the level of economic development. Particularly, accumulation of industrial areas in Baku has led to their rapid development comparing with other regions as well as the aggravation of the socio- economic situation in the regions and the flow of people from regions to the capital. As a result this has contributed to the aggravation of the social, economic, and ecological situations in many places. Also due to the deployment and the development of productive forces, improving the effectiveness of territorial organization of the farm, important regional environmental problems arise from the character and peculiarities of these processes. The emerged situation puts forward the socioeconomic development of the regions, the optimization of the differences between them as an important task on the government level. One of the main objectives of the "State Program on the Socio- Economic Development of the regions of the Azerbaijan Republic in 2014-2018" and "Azerbaijan 2020: A look Into the Future development concept" is to achieve the ecological and economic balance. The main objective of the Republic's environmental policy is to ensure sustainable development through the protection of the existing ecosystems and the rational use of natural resources in order to meet the needs of the present and future generation.

2. LEGAL REGULATION OF THE USE OF NATURAL RESOURCE POTENTIAL AND ENVIRONMENTAL PROTECTION IN SUSTAINABLE DEVELOPMENT

As shown in all international documents, efficient and integrated use of local natural resource potential, environmental protection and solving environmental problems are important factors for sustainable development. From this point of view, consonant development requires environmental protection and continual use of natural resources. Thus, some of the regulations outlined in the current tasks of 21st century are related to the protection of environment and the rational use of natural resources. [10,11,12]. In recent years, certain work has been carried out in order to solve environmental protection and ecological problems in our country. In this regard, a legal basis for the protection of the environment and the productive utilization of natural resources has been created in order to ensure continual development in Azerbaijan. During the period after Rio conference, about 20 national laws on health of population, environmental protection, environmental safety, rational use of natural resources have been adopted. Example of this are "Law on Plant Protection"(1996), " Law on the Protection of the Health of Population"(1997)," Law on Fishing"(1998)", " Law on Earth"(1998), " Law on Environmental Protection"(1999)," Law on Animal World"(1999), " Law on Ecological Safety"(1999)," Law on Atmospheric Air Protection"(2001)," Law on the Compulsory Environmental Insurance",(2002)," Ecological Education and Enlightenment "(2002)," Ecologically Clean Agriculture"(2008) and other laws. The events included in the state programs like "Ecological Socio- Economic Development in the Republic of Azerbaijan "and " Restoration and Improvement of Forests in the Republic of Azerbaijan ", " Hydrometeorology Development Program"," Efficient Use and Development of Natural Stone Deposits un Absheron Peninsula and Prevention of Desertification" confirmed by the President of Azerbaijan were successfully implemented. A number of projects related to the "Comprehensive Action on improving the environmental situation in Azerbaijan Republic for 2006-2010" have been successfully implemented. Generally, mineral resources being complex natural products play a very important role in the technical, economic, ecological and social development of the society.

For this reason, the importance of the use of mineral resources for ensuring consonant development in certain countries in the modern world is steadily increasing. This is issue is also reflected in the sustainable development concepts adopted in the CIS and Eastern European countries [13,14,15,16,17]. The mineral resources of the Earth are an integral part of the overall resources and are one of the key factors determining the socio- political independence of our country. The increase of the economic potential of the Republic of Azerbaijan depends on the efficient use of resources of various mineral deposits, which have been explored in its territory, and the development of mining and processing industries. The territory of our republic is rich in mineral resources, including raw materials such as oil and gas, ferrous and non- ferrous metals, construction materials, stone salt, barite, etc. as well as minerals, thermal, industrial water , and these raw materials are of great industrial and economic importance. Exploration, of minerals does not only provide sustainable development, but also are a major cause of environmental protection problems. Although the exploitation of minerals with open-pit methods is inexpensive, this process reduces soul fertility, causes change in relief, erosion, poising of water and plant, and being unusable. The wells and the ditches during the geologists' searches and explorations damage the top layer of soil. Therefore, while drafting geological projects, the measures for land cultivation and environmental protection are taken into consideration. The complex use of mineral resources and primary raw materials in the sustainable development in the Republic of Azerbaijan comes from the need to meet the requirements of farms for various products and meet the needs of population for different expenditures. Continuous increase in the number of population, rapid development of science and technology also enlarges the demand for various raw materials and products. This, in its turn, requires a complete and comprehensive approach to the processing of primary raw materials, which is more important than economic, social and environmental point. Complex utilization of natural resources is one of the main principles of consonant development in our country, which has already been formed in relation to oil and natural gas and its economic evaluation, stimulation is completely carried out. Great sources of these resources are on the shelf of Caspian Sea. The calculations show that if 20-30 mln. tons of oil are produced , it will allow oil production for 100 years. Oil has been produced with industrial method in Absheron peninsula since 1871. Now very rich oil and gas deposits have been discovered on the shelves of the Caspian Sea, especially in Baku and Absheron archipelago, in Aran and Ganja-Gazakh regions and search projects are in process. During the last period, 40 percent of potential oil reserves and 20 percent of gas reserves have been utilized. As mentioned above, alongside with oil and gas, a large amount of construction materials, mineral,thermal and iodine-bromine waters, ore, non-ore, chemistry and other types of raw materials are available in the Azerbaijan Republic. The greater and Lesser Caucasus, Nakhchivan are particularly rich in ore foliage. Filizchay polimetal in Sheki-Zagatala district, iron ore reserves in Dashkasan district are located in large deposits. Being about 280 million tons, Dashkasan's iron ore reserves are considered to be the largest deposit in the South Caucasus. Some part of iron ore were found in Gadabay, Ordubad and Shamkir districts. The northeren slopeof the Lesser Caucasus is rich in cobalt, sulfur arsenic, cooper ore, granite, marble, fusilli limestone, barite, and other resources. Large copper ore deposits are also found in Tovuz, Gazagh, Dashkasan, Ordubad deposits like Filizchay, Kasdag, and Katex in Sheki-Zagatala as well as in Gadabay. Aluminum, polymetallic, copper, gold, lead, zinc, molybdenum, mercury, cobalt, and sealite reserves are of industrial importance in our republic. Zunlik's alunite is a complex raw material, from which aluminum oxide, sulfuric acid, sulfur dioxide, potassium fertilizer and potassium salt are extracted. Polymeric ore reserves are widely spread throughout the country. Although there is a large amount of ore reserves in Mehmana, Nakhchivan, Gumushlu, Paragachay, Gapichig, and Balakan, but still not exploited by industrial methods [2,3]. In recent years, 2500 tons of silver, 400 tons of gold, 1.5 million tons of polymetallic deposits are found in the territory of

the republic. According to experts, gold reserves are more than 1,000 tonnes of gold-sulfide in Kelbajar, Agdera copper quartz gold, Gold-copper-golden in Gadabay, quartz-gold in Zangilan, Gazakh and Tovuz. Mercury reserves have been identified in more than 50 fields. 6 mercury deposits were discovered in Kalbajar-Lachin economic region, including the Şorbulaq, Agyatag and Lohchai deposits. In general, lead reserves are estimated at $ 1.7 million. tons and its 1.54% contains metal. (8). Ganja-Gazakh economic region is rich in many natural resources, including bentonite clay, which is widely used in various industries, especially in the oil industry. Dash Salahli bentonite clay deposit of Gazakh region has raw material reserves applied to different fields. This raw material is widely used in ferrous metallurgy, iron ore rollers, oil extraction, building materials industry, construction of irrigation facilities, and winery. Over 400 different types of non-ore and building materials have been discovered in the country. The total inventory is 403.5 mln. tons of cement, worth 477 million cubic meters. km, 55 million km. cube km, with 3.7 million km. cubic km of stocks of decorative stone with reserves 16 mln. cubic km of ceramic raw material, reserves of 204.4 mln. cube km construction stone, 160.7 mln. cube km clay, 1.03 bn. cube km sand and gravel, 48.4 mln. cube km sand, 13 cubic km contains caution pearl and pumice deposits. Upper Aghcakand high quality bedding together with others gives 500,000 tons of plaster a year, which is widely used in industry and agriculture [7,8]. Apparently, as a result of the geological exploration, various types of non-ore-extraction and building-construction materials have been discovered and produced in several regions of the Republic, with their raw material reserves being represented by 39 deposits in the State balance. The Greater Caucasus, the Lesser Caucasus, the Nakhchivan natural regions, the Lankaran-Masally region are rich in mineral and thermal waters. In accordance with the Decree of the President of the Republic of Azerbaijan dated February 5, 1996 "On Exploration and Development of a number of gold deposits of the Republic of Azerbaijan" for the purpose of the establishment of the gold mining industry in the republic, on August 20, 1997, "Azergizil" Investment Group Sevrvices LLS has signed an agreement on Exploration, Development and Production Sharing in Gadabay, Gosha, Ordubad Group (Piyazbashi, Agyurd, Shakarda, Keleki), Soyudlu, Gizilbulag and Vejnali prospect and signed by the Armenians in the occupied area since 2005 and additional exploration works were started on other fields, except for Soyudlu (Zod), Gizilbulag and Vejnali deposits, and was completed in 2008. At present, the state program for non-metallic metallurgy, as well as for the development of ferrous metallurgy has been adopted. Domestic and import-substituting chemical industry has been one of the most developed areas of the republic, providing the CIS space with certain products. The products of propane, potassium, butane-butylene and benzene, and products of the mining industry are developing chemical industry. Nakhchivan's salt deposits, as well as barite, sulfur arsenic, kopal, dolomite and mineral dyes are promising resources for the chemical industry. Raw materials such as the salt lake in the lower streams of the Kura river, Mughan plain, Bigshore in Absheron, Masazir lakes, Chili shoras, Mirabilit are important. Epsomite and molanteritis in the Nakhchychay field in Nakhchivan, such as umbra, sori, siena, breccia in Shamakhi, Gadabay and Goygol regions are useful. As a product of the basic chemical industry, there are sufficient raw material reserves for the production of iodine and bromine. Seolite is widely used in petrochemical industry, oil refining, chemical industry, agriculture and metallurgy. The large deposits of Seolite are found in Gazakh, Tovuz, Nakhchivan, Talysh, in the Lesser Caucasus. Reserves of iodine-brominated water in the country are 250,000 cubic miles per day [8]. At present Neftchala and Khilli deposits are operating on the basis of Neftchala and Absheron mine waters Surakhani iodine-bromine factories. Changes in the field and territorial structure of chemical industry in recent years, giving priority to small and medium-sized enterprises, especially private enterprises, have been aimed at meeting the growing demand for the economy and the population, protecting the environment, and rational utilization of raw material resources, which in economic and ecological terms right.

Recent purposeful economic reforms, privatization, privatization and state care for entrepreneurs have also impacted the construction sector, as other industries, increased production of new materials, increased quality and played an important role in environmental protection. In general, being a complex natural product, mineral raw material resources play a very important role in the socio-economic and social development of society. For this reason, the importance of mineral resources is constantly increasing to ensure sustainable development in modern times. Mineral resources are one of the main factors determining the economic and socio-political independence of our country, being an integral part of the overall natural resources. Increasing the economic potential of the Republic of Azerbaijan depends on the efficient use of resources of various mineral deposits, which have been explored in its territory, and the development of mining and processing industries. In addition to the mineral resources registered in the state-owned and state-owned reserves, prospecting and geological exploration works were carried out on many ore occurrences and their initial reserves were assessed.

3. ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT

Certain institutional measures have been taken to ensure the systematic management of the environment and natural resources in accordance with the principles of transition to sustainable development. The most important of these events is the establishment of the Ministry of Ecology and Natural Resources in May 2001which covers new structures. Azerbaijan also operates at regional level in solving environmental problems. The Caspian Environmental Program (XEP) was established in 1995 with the consent of the World Bank and other international financial institutions with the consent of five Caspian littoral states (Azerbaijan, Russia, Iran, Turkmenistan and Kazakhstan). The main objective of this program is to manage the ecology of the Caspian Sea for a long time and to ensure sustainable development in this area. Azerbaijan has joined about 30 environmental conventions to expand international cooperation in the field of environmental protection and actively participate in addressing global environmental problems, and many of them have been ratified. Our Republic's accession to international conventions is an example of Azerbaijan's contribution to environmental protection and global environmental problems. As it is noted, the Republic of Azerbaijan has wide opportunities as a state with rich natural resources and advanced industrial spheres. However, because of the unresolved ecological problems that have been accumulated over many years, the country's environment has been polluted. Presently, there are a number of environmental problems that require immediate solution to the republic, such as lack of environmentally friendly drinking water, contamination of natural water basins, environmental problems of the Caspian Sea, degradation of soil vegetation, pollution of the environment, waste management and so on. can be attributed. It is necessary to analyze the ways to address these environmental problems on the basis of sustainable development principles. It is known that there are no potential sources of water in order to meet the needs of agriculture in agriculture and drinking water in the country. Water shortage in several regions, particularly Absheron, is explained by the inadequate use of water resources. Due to lack of water network systems, many pipelines have been exploited as a result of many years of operation, and about 45-50% of drinking water is lost due to failure to meet current technical requirements. Extreme pollution of Kura and Araz rivers, the largest rivers of Azerbaijan through the domestic and industrial wastes discharged from neighboring states - including Georgia and Armenia, including the settlements and industrial facilities of our republic, is also a major problem. The quality of water in the pouring of the river into the Caspian Sea is only for technical purposes. The condition of the treatment facilities is also unsatisfactory. Only 35 of 75 cities of the Republic have water treatment facilities. They are also equipped with mechanical cleaning tools. In Baku, the total volume of polluted water is about 1.2 mln. cubic meter which is only 50-60% cleaned [7,8]. As shown, the rise in the level of water in the Caspian Sea has completely affected the coastal strip

of the Republic of Azerbaijan. In the disaster zone includes 800 sq. Km of territory, 7 cities, 35 settlements, more than 120 livestock facilities, a number of national farms, 15.3 thousand hectares of pastures, 1.2 thousand hectares of vineyards and 120 thousand ha. land were damaged. Total damage to the Republic of Azerbaijan as a result of sea level rise is estimated at $ 12 billion [7, 8]. The following measures are required for the implementation of national and regional programs for the development and management of water resources, based on the sustainable development principles of the protection and rational utilization of water resources:

- Implementation and development of state programs and laws for the efficient use of water resources and water ecosystems;
- Improvement of quality of drinking water and stimulation of adaptation to relevant standards;
- Enhancing regional and international co-operation for the effective use of water resources by neighboring states for the protection of Transboundary Rivers from pollution;
- Enhancement of water recycling at industrial and other facilities in order to eliminate water shortages and implementing measures to use non-traditional waters (waste, collector-drainage, wastewater etc.) and irrigation (drip, rainwater irrigation) in agriculture [9].

Since the independence of our country was restored in 1991, due to the breakdown of the existing economic relations, many industrial enterprises in our republic were suspended, some of them operating at a rate of 20-30 percent of the production capacity. In this regard, the amount of harmful substances emitted from stationary sources into the atmosphere has significantly decreased compared to 1990. The following strategic measures are required to address these problems and to ensure sustainable development in the country: Major repairs or replacement of gas-dust storage facilities in industrial enterprises, acceleration of green transport transit and prevention of exploitation of old vehicles not meeting environmental requirements improving the quality of atmospheric air by improving greenhouses around industrial enterprises, residential areas, roadside and neighborhoods, etc.

4. CONSERVATION OF RURAL AND FORESTRY AGRICULTURE, AS WELL AS BIODIVERSITY

One of the major environmental problems in our Republic is the 4.1 million barrels of useful agriculture. ha (47.7% of the territory of the republic) is gradual degradation of lands. So, 3.6 million tons. ha is currently being eroded. 1.3 million ha of them were weak, 1.15 million ha and 1.14 million ha were eroded. Soil salinization process is also of great concern. According to the research 1.5 million. ha land have been salinized [8]. Currently, international financial institutions (World Bank, European Union TASIS program) and foreign countries have been working on cleaning the oil contaminated land, purchasing the required equipment. In order to effectively use the land resources in accordance with the principles of sustainable ecologically sustainable development, the following strategic measures are required in our country:

- Preparation of relevant action plans and national action plan to erode and saline soils available for agriculture, increase fertility;
- Continuation of recultivation works on oil polluted lands in Absheron and Aran IR;
- Accelerate reclamation work by inventory and disposal of existing collector-drainage and irrigation networks;

It is known that the Republic of Azerbaijan belongs to less forested areas. Only 12% of the country's territory is covered with forests. As a result of the economic problems of the transition period, pressure on the forests, military conflicts, fuel and construction, both the area has declined and the quality of the forests is reduced. The protection and rational utilization of this potential is crucial, taking into account the effects of water and soil management functions on

the climate. At the same time, the soil-climatic conditions of the country are quite favorable for the establishment of new forest strips. Establishment of such forest strips is important for supplying raw materials to the chemical, food and woodworking industries, and can give rise to new jobs, which is crucial to the sustainable socio-economic development. The current environmental problems can be partially solved by restoring and expanding forest resources, building new forest lanes, as well as increasing the economically important crops. Therefore, it is expedient to take the following strategic measures for the protection of forests:

- Taking measures on inventory works in the forests of Azerbaijan, prevention and restoration of illegal logging and other forest felling;
- Arrangement of efficient use of forage, fruit and other herbs existing in forests and designing and laying out of new forestry gardens;
- Determining the pressure on the forests taking into account the importance of recreation, and the establishment and use of tourism-oriented recreational potential;
- Solution of employment problems of rural population living in forests covered by forest resources through creation of jobs not related to forest resources;
- Regularly implementation of biological and chemical measures to protect forests from various diseases and pests [7,9].

Biodiversity Conservation after signing the Convention on Biodiversity Conservation in Rio de Janeiro in 1992 by the Republic of Azerbaijan has undertaken a number of measures to meet the requirements of this Convention. Since 1995, Azerbaijan has been a constant participant of the Pan-European Biodiversity Safeguard Strategy. The country has developed action plans for different sections of this strategy, including the development of specially protected areas, protection of rare and endangered species of flora and fauna, restoration of wetlands and development of mountain ecosystems. The Republic of Azerbaijan ratified the UN Convention "On Biodiversity Conservation" in 2000. The State Commission for Genetic Resources of Biological Diversity was established in 2001 under the order of the President of the Republic to fulfill the commitments arising from the Convention. Prepared national programs and projects have been approved by the Government of Azerbaijan in 2001, with the support of the Global Environment Facility and the United Nations Development Program, as reflected in the national report and action plan on Biodiversity Conservation. The Republic has joined more than 20 international conventions to strengthen its activities in the field of environmental protection on the eve of its accession to the Council of Europe in 2001. These include conservation of transboundary rivers, water basins and international lakes, preservation of wildlife and natural environment of Europe, water-wetlands of international significance, primarily for water birds' habitat, and cultural and natural heritage preservation conventions. Two suburban areas - Aggol and Gyzyllagak lakes are listed under the Ramsar Convention. Biodiversity conservation in Azerbaijan has both national and regional as well as global significance. In order to ensure sustainable development in the Republic, the following strategic measures should be taken to protect biodiversity:

- To join all environmental projects, international conventions, other inter-regional and regional agreements on biodiversity conservation within Azerbaijan;
- Monitoring, restoring and enhancing the variety of plant and animal life threatened with specially protected areas, updating the Red and Green Libraries;
- Establishment of new national parks, reserves and sanctuaries to protect biodiversity within the territory of Azerbaijan.

5. ASSURANCE OF SUSTAINABLE DEVELOPMENT AND ECOLOGICAL POLICY IN AZERBAIJAN REPUBLIC

One of the main goals of the "AZERBAIJAN 2020: A LOOK INTO FUTURE" DEVELOPMENT CONCEPT, confirmed by the Decree of the President of the Republic of Azerbaijan dated December 29, 2012, are to achieve ecologically sustainable socio-economic development. Waste management, neutralization, recycling and utilization, as well as the application of low-waste or non-waste technologies are being undertaken in order to protect raw materials, rational use of natural resources and protect the environment, and this process will continue. In order to effectively manage land resources, the work to be done to prevent desertification processes, recultivation of useless lands as a result of activities of large industrial and mining facilities, improvement of efficient use of agricultural lands will be expanded; measures will be taken to strengthen the fight against land anthropogenic pollution. In addition to this, practical steps will be taken to improve the existing environmental protection legislation in line with international best practices, to improve the effective monitoring and control mechanisms, and to create new ones. At the same time, the necessary infrastructure for the expansion and support of scientific research activities in the field of ecology will be created. Special attention will be paid to informing the public about the expansion of international cooperation in the field of environmental protection and the promotion of the environment protection culture. In 2015, world leaders have confirmed the 2030 Agenda for Sustainable Development, the universal path leading to the solution of all available human challenges. A total of 17 universal sustainable development goals and 196 targets have been defined to achieve the agenda by 2030. In the establishment of the National Coordinating Council on Sustainable Development in October 2016 to coordinate the implementation of sustainable development goals in Azerbaijan, our country has shown its commitment to achieving the 2030 Agenda. IDEA has been successfully cooperating with the UN in a number of projects aimed at promoting Sustainable Development Goals in Azerbaijan. Many joint campaigns, including the United Nations Development Program, the UN Food and Agriculture Organization (FAO) and FAO, are planned to be completed by the end of 2018. Last year, the Voluntary National Report on Preliminary Steps to Implement the Transformation of Our World: Sustainable Development Agenda up to 2030 was prepared and submitted to the High Level Political Forum in Azerbaijan. "Sustainable development is a development that meets the needs of today without endangering future generations," and the ecological and economic aspects of this development cover the oceans and seas, climate change, environment, waste management, ecosystems and biodiversity goals. In order to achieve this, it is of particular importance to balance the relationship between man and nature. As noted, sustainable development involves three key elements - the economy, society and the environment - in this regard, after the independence of the Republic of Azerbaijan and choosing the path to market economy, environmental policy in the field of environmental protection has become new and shaped in our country. This is also explained by the perception of environmental issues as a universal problem. In this period, the first environmental policy document in our Republic is "Environmental Concept of the Republic of Azerbaijan" (2003), based on the principles of "Sustainable Development". The main goal of the environmental policy pursued in the Republic of Azerbaijan is to ensure sustainable development through the protection of existing ecological systems, economic potential and rational use of natural resources in order to meet the needs of present and future generations. In order to accomplish this, the ways to use natural resources have been developed and the development of the economy has begun on the basis of sustainability principles.

6. CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

In order to ensure that the economic development of the country is environmentally sustainable, it is necessary to eliminate serious environmental problems that arise during economic activity

and to minimize negative environmental impacts. Taking into account the current ecological situation and socio-economic situation, the following directions of the ecological policy of our republic can be defined:

- Implementing progressive methods of Sustainable Development Principles with a view to ensuring environmental safety at the expense of the Republic's natural resource potential, with a view to ensuring that environmental impacts are minimized and protected;
- Comprehensive utilization of natural resources for sustainable development, utilizing alternative and inexhaustible energy sources and achieving energy efficiency;
- Assessment of cooperation and needs at international, regional and national levels on global environmental problems, identification of solutions.

Sustainable development issues in our Republic are covered by the "State Program on the Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018" and the Strategic Road Map of the Republic of Azerbaijan on the National Economy Perspective approved by the Decree No.1138 of the President of the Republic of Azerbaijan dated December 6, as well as ensuring the ecological balance as one of the main goals set forth and forthcoming. Effective and comprehensive use of our country's natural resource potential, including biodiversity conservation, neutralization of the negative impact of the fuel and energy complex on the environment, elimination and protection of marine and its aquifer pollution, restoration of useless territories and effective protection of available resources will continue in the coming years.

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THE ROLE OF INVESTMENTS IN RESOLUTION OF SOCIO-ECONOMIC PROBLEMS

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ABSTRACT

The article is devoted to the investigation of the current level of investment attractiveness of the regions. Analysis have been conducted to study the investment attractiveness, ensuring the active investment activity and some positive decisions have been made. Conditions of the efficient socio-economic development in the region level has been clarified and analysis of the basis of possible ways of direct investments to the regions, characteristic features of the active investment activity for investment attractiveness and the modern approaches for efficient socio-economic development of regions have been conducted. Efficient ways of focusing the investment opportunities emerged in the country on the socio-economic development of the regions have been investigated and scientific-theoretical problems of the encouragement of the investments to the regions in modern condition have been analyzed. Influence of the non-stable financing, unidentified strategy on implementation of the socio-economic projects funded by the government of Azerbaijan republic has been described, execution of the actions against global political and economic influences, the international currency, traditional competitive environment in business have been analyzed. Socio-economic analysis of these problems plays economic justification for execution of the external and internal investments, the capacity of the budget and grants for resolution of these problems. Besides that development of the tendency of increasement of the amount of the fund required to increase the investment resources needed for socio-economic development of regions and the processes on this direction have been analyzed. The importance of the correctness of the data gained to use given complex and systematic methods and necessity of researching the events focused on implementation of the regional investment projects in Azerbaijan Republic according to the current investment policy has been justified. Some proposals have been given considering the local features, learning the experiences of the other countries in regional perspective, the same time the necessity of elimination of the current problems and the aim of the analyses has been identified. These proposals will help to increase the efficiency of this process for implementation of the promising priority projects. Regional business development, the amendment or improvement of the legislation for application of investments in country being more compromising has been investigated in the analysis.

Keywords: *investment, investment attractiveness, region, socio-economic development*

1. INTRODUCTION

State-run management of certain natural resources historically in the socio-economic space of Azerbaijan reasonably increases the economic efficiency and activity of the socio-economic policy. From this perspective, certain differences between regions, emergence and grows of crisis situations in economy requires more agile actions from market participants. Recently the reforms conducted in the country allowed getting positive results in development of the economy and social field. In the modern condition investments are considered to be one of the vital factors for the development of socio-economic system of every country. The scale, structure and efficiency of the investments identify mainly the status, perspectives and competitiveness of the national economy. Changes in the quantity of the investments has positive effect on the level of employment of population and social production, getting the structural changes in the national economical network, development of the economy and

industrial fields. The same time dynamics of the investments is the main parameter of the recycling process and it gives opportunity for allocation of recourses for the current consumption and between the main relations for future growth.

2. APPLICATION OF THE INVESTMENTS FOR ENSURING THE SOCIO-ECONOMIC DEVELOPMENT

One of the main problems before the modern society is to intensify the improvement of the socio-economic condition and this requires creation of favorable conditions. To achieve these goals investments can be involved in the real section of economy. The amount of the investments in the main funds and their growth rate is the indicator of the investment attractiveness of the region. Increase in the attractiveness helps the flow of capital and in common, the restoration of the economy. From this perspective, guided by some certain features, allocating the investments to regions, reducing the investments' risk level and investment potential increases the investment attractiveness of the region. Mainly the successful activity of the regional administration bodies has got the vital importance in resolution of this matter. Experience shows that the efficient socio-economic activity of the regions, reasonable increase in the flow of investments to economy depend on the attractiveness of the investments in these regions. The scale of investments identifies the type of the recycling of the economy and these types can be a simple, large or restricted. In this case the main indicator is the net investment indicator. The total investment is the amount of finance invested for new building structures and for purchasing new production means for a period of time. If the total investment is more than amortization amount and as a result of that it reflects the positive value of the net investment, it means that in this case productivity is ensured (1. Pages 2-3). When the total investment and amortization is equal, it means that the substantial cost of the net investment is generated, and as different number of investment funds intervene in the economic life, recycling of the social product is generated and enlarges gradually. In the case when the total amortization cost is more than the total investment value, the net investment indicator should be accepted in the meaning of negative value. Decrease in their amount can lead to reduction of production potential and eventually in the economic recession (2. pages 60-61). It should be considered that it is impossible to apply any methodology to estimate the development of the region and assess the development level and for doing that, distinguishing factors of regions and social aspects of the development of business must be considered. Many macroeconomic indicators can be listed to characterize the effectiveness of the regional economy. From that list, the internal regional product, the external trade turnover, the level of investment, current level of life condition, unemployment, consumption prices, per capita amount of the medium monthly income of population, industrial production, production of agriculture and per capita housing supply in the region must be taken into account.

3. ASSESSMENT OF THE REGIONAL ECONOMY AND ATTRACTING THE INVESTMENTS

A unique approach can be applied for assessment of the regional economy. All these factors influence each other mutually, directly or indirectly, but statistics in this matter doesn't allow to assess the economic condition in the region widely. The indicator of the investment attractiveness must be emphasized for description of the economic efficiency of the region. This is the grade of the investment attractiveness and this is one of the conditions for investment activity and eventually it means the efficient socio-economic development of the regional economy. There are the main moments in assessment of the region's investment attractiveness and they can be various. Of course, each region has got investment attractiveness and it includes the current legislative basis, legal aspects, political situation, the level of defense of the rights

of investors, tax rate, etc. The main principles of the establishment of the regional investment policy are listed below:

1. Application of fast and related industrial investment projects,
2. Expansion of investment base for mortgage lending,
3. meeting the current requirements of the same conditions and the insurance system for all participants,
4. Establishment of the equal competition environment, insurance of the apparent activity of the investors and investment projects.

As a result of elimination of the negatively affecting aspects the profit level has been increased in regions and progressive development of social economic development is being observed. The level of socio-economic development is the main factor indicating the development level identified after the comprehensive assessment of the position of the region. Different social problems must be solved for increasing the level of social life and economic development in regions. To make the investments more attractive it is necessary to increase the strong development of economy, also having greater financial potential of the state as a whole is considered to be a positive factor (3. Page 13). Of course, another important task before the government is the control of investment market and full insurance of the apparent information policy. The start and development of the business for investor, provision of the best favorable conditions for making investments and increasing the competitiveness of the region are the main tasks of the regional economic policy (4. page 21).

4. ELIMINATION OF THE FACTORS AFFECTING IN THE DEVELOPMENT OF THE INVESTMENTS IN REGIONS

For development of the investment process in the regions of Azerbaijan Republic the below listed negative tendencies must be eliminated:

- Insurance of the future sustainability of the requirement for the competitive products in the commodity markets,
- Elimination of the low efficiency of the investments in local production,
- Expansion of the goods and paid services.

This is true that, there must be internal opportunities for these tendencies to bring to the dramatic changes and establishments of them must be executed gradually. The main restricting factors of development of the investment activity are listed below:

- Reasonable dependency of the national economy, public finance and payment balance on the conjuncture developing in the world commodity market,
- Not paid attention on internal and external needs of the economy,
- Limited development opportunities of economy of Azerbaijan due to low financial resources and reduction of the internal needs of the firms and companies focused on the domestic consumers,
- Lack of the progressive growth of the investment mechanisms, weak relations among the fields due to lack of capital,
- Low loan rating in the international capital markets which prevents efficient borrowing of the financial resources,
- Low real income and population savings which prevent the growth of the consumers' requirement.

Taking into account all of these, the main goals of the investment policy of the state can be summarized execution of the tasks as listed below:

1. Improvement of the investment environment and raising the attractiveness of the investment of the national economy up to maximum,
2. Restoration of the investment potential and wider development of the internal investment potentials of the country,
3. Reinforcement of the banking sector as an investment center and increasement of the investment activity up to the modern requirements of the loan and financial potentials,
4. Further development of the investment opportunities of fund market and institutional bodies,
5. Acceleration of the process of attraction of the investment resources and external capital from the world markets,
6. Raising the efficiency of investing activity of the state and improvement of the financing mechanisms according to the modern innovative requirements.

Of course, implementation of these actions and their efficient activity as a mechanism mean releasing of some part of the budget capital. The depressive and efficient restructuration must be implemented based on especially important projects implemented in industry. With this regard, resolution of problems of the social field merges in itself the mechanisms implemented by support of the state and in parallel, it is required to increase the amount of investments year by year in resolution of the social provision (cultural, educational, scientific and medical) and growth issues of population.

5. CONCLUSION

Considering the above-mentioned discussion, it can be concluded that the efficient regional investment policy must be based on below mentioned principles:

1. It is necessary to have the detailed legislative division of some responsibilities between the regional administrative bodies and municipal bodies. They use the economic condition in the regions of Azerbaijan and the advantages they have in some directions. For having more efficient control they must be given broader rights and accountabilities. On this basis, the long-term development program must be prepared on attraction of the foreign capital for ensuring the efficient distribution of the relevant economic sectors and linking the regional executive powers with the regional development programs. The main task of the local bodies needs to be taking advantage of the foreign capitals and projects giving opportunity for resolution of the regional problems, application of the discounted tax, establishing the profitable investment condition.
2. It is reasonable to centralize the functional control of investment processes by merging them in both central and regional level to achieve the efficient control of them.
3. The regional investment programs should include mainly the private, governmental and municipal, as well as the special projects intended to attract the foreign investments. The efficient resolution is possible by getting agreement around the projects executed by the participants of the regional investment program - production, socio-economic, organizational, economic, scientific-research, development and other activity sectors.

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SOCIOECONOMIC BACKGROUND VERSUS PUBLIC SUPPORT: WHAT MATTERS FOR STUDENT PERFORMANCE?

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ABSTRACT

This paper presents quantitative analysis on inputs and outputs of primary education in 79 districts (LAU 1 level) in the Slovak Republic. The analysis considers a broad array of factors important for educational outcomes: the socio-economic status of the students, capacities of regional systems of education, volumes of financial support from national public and European resources, and the number of teachers per student, etc. The European resources are analysed by type of intervention ('hard' policy measures implemented under the Regional Operational Programme and 'soft' policy measures implemented under the Operational Programme Education). The analysis also considers data on the socio-economic background of students, and data on financial and non-financial inputs to primary education. Two dependent, and 15 independent variables are examined via factor and regression analysis. The explanatory power of the regression analysis was significantly higher for the drop-out rates than for the Test 9 scores. Poverty was by far the most important factor behind dropout high rates. The result indicates that once families pass the poverty threshold, student performance is more responsive to state funding. Further research may bring more details on the relationship between investment in social inclusion and formal education. The key conclusion from the analysis is that neither national public nor European funds alone are able to address problems around the issue of increasing drop-out rates. Regional distribution of the dropout rates is strongly correlated with the distribution of Roma communities, material deprivation, and unemployment. The state has to address problems of poverty and marginalisation first and then turn to policies of primary education. The policy recommendation is to implement complex local strategies, which address multiple problems in one policy package.

Keywords: *early school leavers, socio-economic background, student performance*

1. INTRODUCTION

1.1. Conceptualisation

There is a substantial return on human capital obtained via education (Badescu et al. 2011). A smooth transition from school to work is extremely important for students' future lives. Early school leavers ('dropouts') find it very difficult to find stable jobs. Jobseekers with incomplete primary education account for the highest unemployment rates. Completion of primary education is subject to many conditions, such as availability of educational infrastructure, dedicated teaching staff and public support and good quality curricula. Successful transition from school to work, however, is by no means guaranteed even in developed OECD countries. Students from families with low socio-economic status must cope with many difficulties when completing their studies. Poverty, ethnic and racial discrimination, and/or lack of motivation may induce students to leave education prematurely.

The academic research brings plenty of examples that the socioeconomic background of students plays an important role in learning performance and outcomes. A meta-analysis of 74 studies by Sirin (2005), pointed to a medium to strong correlation between socioeconomic status and student achievement. A meta-analysis of 66 studies by Çiftçi (2017) indicated that socioeconomic status has a high effect on student achievement. Lindo (2014) found a relationship between students' family background, (i.e. human, social and financial capital), and the comprehension of struggling readers in grades 2–6. Perreira et al. (2006: 511) found that low levels of family human capital, and community social capital, place the children at risk of dropping out. The socio-economic background impacts performance and literacy levels. Netten et al. (2014) show how the socioeconomic factors are related to the reading literacy achievement of fourth-grade children (about 10 years of age) in the Netherlands during the past decade. Students coming from disadvantaged backgrounds and/or marginalised communities may have found completion of compulsory education particularly challenging. Pasca (2014), for example, examined background and context of integration of the Roma population in and through education. There is little doubt that socio-economic background matters for student performance. We are still missing insight in specific transmission mechanisms between the socio-economic status of students and their performance. Thomson (2018) concludes that over the past 50 years 'we are fairly certain that socioeconomic background does have an effect on educational achievement, but we are no closer to understanding how this effect is transmitted'. The role of public funding in student performance is less clear. According to Card and Kruger (1996), the vast amount of research on the relationship between school resources and student outcomes show rather ambiguous results. Hanushek (2006, p. 865) notes little consistent relationship between resources allocated to schools and student achievement.

1.2. Trends in student performance in Slovakia

The Europe 2020 Strategy set five headline targets to achieve by the end of 2020. For education, the Slovak Republic set national targets in smart and inclusive growth: to reduce school dropout rates to below 6%. The target proved difficult to achieve. The school dropout rates (as a percentage of the population aged 18-24) increased from 6.0% to 9.3% in 2008-2017 (Eurostat 2018). Families with low socio-economic background generate significant share of early school leavers in Slovakia. Risky groups of students (coming from low-income/low-education families) constitute a major factor behind deteriorating performance of the Slovak Republic in primary education compared to the OECD averages.

Figure following on the next page

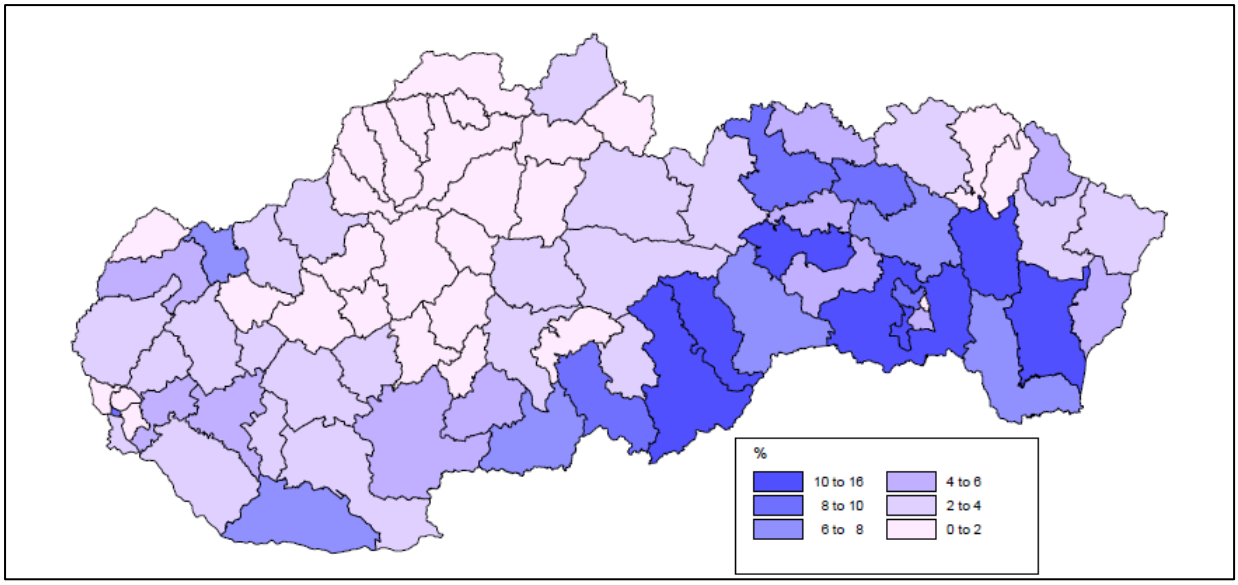


Figure 1: Early school leavers as % of population aged 18-24 years. Drop-out rates in primary schools for 15-years-old (%)(The Slovak Centre of Scientific and Technical Information, and authors' own computations).

The OECD PISA report (OECD 2014: 13) found that socio-economic disadvantage is closely connected with many of the student and school characteristics that are associated with performance. The OECD PISA analysis established the strongest relation between socio-economic status and educational outcomes for Slovakia, Hungary, Bulgaria, Uruguay and Chile. The same report also ranked Slovakia with countries where the school system segregates students according to their socio-economic status. There are no student-level data on socio-economic status of the Slovak students. The personal data, however, can be approximated via contextual information. Regional distribution of some important socio-economic variables (unemployment rates, population living in material deprivation, share of Roma population and share of population with the lower secondary attainment) is very similar to regional distribution of the dropout rates for primary schools. This paper presents quantitative analysis of student performance in primary education in 79 Slovak districts (LAU level 1, formerly NUTS level 4). The analysis examines a high number of variables important for student performance. The variables relate to the socio-economic background of regions, intensity of financial support from national public and European resources, and the numbers of teachers per student, etc. The European resources are analysed by type of intervention ('hard' policy measures implemented under the Regional Operational Programme and 'soft' policy measures implemented under the Operational Programme Education). We analyse performance of both early leavers and students completing primary education. Primary education constitutes nine years of schooling in Slovakia. An additional two years of schooling in secondary education is compulsory in Slovakia. Regional data on dropout from secondary schools were not available. We therefore compute the drop-out rates for nine years of primary education only. The strength of the relation between socio-economic background and inputs to education on the one hand, and educational outcomes on the other hand, is examined via regression analysis in the next chapters.

2. HYPOTHESES

The literature review and the OECD reports lead to the following hypotheses:

- H1: Public support is positively correlated with student performance
- H2: Socio-economic background is more important for student performance than public support

3. DATA SOURCES AND RESEARCH METHODS

3.1. Data sources

The central government agencies manage data on education finance and school performance. Data on school dropout rates were provided by the Slovak Centre of Scientific and Technical Information (SCSTI 2018). The National Institute for Certified Educational Measurements (NUCEM 2018) provided data on evaluation of 9th graders' performance ('Test 9'). Both institutions are agencies of the Ministry of Education, Science, Research and Sports of the Slovak Republic (MESRS). The SCSTI and NUCEM also provided data on numbers of students and teachers, and data on national financial support to primary schools. The Government Office manages the databases of the National Strategic Reference Framework. The databases provided data on the European support to primary schools. The data concerned 1080 projects (financed from the ROP and OPE) implemented until 2014. The Statistical Office of the Slovak Republic provides the DataCube database. The database contains context data on population structure, wages, educational attainment, urbanisation rates and divorce rates. The Central Office of Labour, Social Affairs and Family of the Slovak Republic (COLSAF 2018) provided data on unemployment rates and population in material deprivation.

3.2. Variables

Two dependent variables were chosen to analyse student performance:

1. Percentages of dropouts in primary schools.
2. Evaluation of 9th graders' performance ('Test 9') in reading in their mother language, and mathematics. The performance is measured via the Average Marks of School (AMS) and the Average Success Rate of School (ASR)[1]. The OECD PISA (2014) study pointed to links between the students' mother language, language used in school and educational outcomes. Slovak, Hungarian and Ruthenian languages are used in Slovak schools. We considered the mother language of students when analysing AMS and ASR scores. In mixed-language schools (Slovak-Hungarian and Slovak-Ruthenian) the language of the majority of students was considered the language of the exam.

A number of independent variables impacted educational outcomes in Slovak primary schools. Some variables relate to the socio-economic situation of regions where students live and attend schools. Most important variables include average regional levels of educational attainment, employment and income levels, shares of urban population and shares of marginalised communities in the total population of the region. We also observe regional divorce to marriage ratios. Students coming from incomplete families may account for sub-optimal performance in primary education. Primary schools differ also by level of education inputs, such as financial assistance and numbers of teachers per student. The independent variables were allocated in two groups. Ten variables for the socio-economic status included

- Annual average unemployment rate (%).
- Annual average gross wage (euros).
- Share of Roma population in total population, as reported by the 2013 Atlas of the Roma Communities[2].
- Share of urban population in total population (%).
- Divorce to marriage ratio (number of divorces divided by numbers of marriages) (%).

[1] Slovak student performance is ranked on scale 1 = best to 5 = worst. Marks over 3 indicate poor performance. The ASR score indicates how many students passed the exam. Average national ASR was 54.7% for mathematics and 62.0% for reading literacy in 2014. Total number of schools involved in Test 9 was 1448, of which 1309 used Slovak, 124 Hungarian and 3 Ruthenian languages. Data on AMS and ASR are reported on levels of schools. This study uses weighted average data on all schools in particular districts (LAU 1 level).

[2] The 2011 Census data heavily underestimate numbers of Roma members. The 2013 Atlas of Roma Communities presents more realistic data on total numbers and regional distribution of the Roma community in Slovakia. Source: UNDP (2013).

- Share of population in material deprivation in the total population (%).
- Share of population with a primary education (ISCED 0-2) in age 35+ in total population aged 35+ (%).
- Share of population with the lower secondary education (ISCED 3c) aged 35+ in total population aged 35+ (%).
- Share of population with the upper secondary and postsecondary education (ISCED 3 and 4) aged 35+ in total population aged 35+ (%).
- Share of population with tertiary education (ISCED 5 and 6) aged 35+ in total population aged 35+ (%).

Three variables for education inputs included
- Numbers of students per full-time teacher in primary schools[3].
- National public financial support per student in primary schools (euros).
- The European financial support per student in primary schools (euros).

The support was disaggregated for projects implemented under the Regional Operational Programme (ROP) and the Operational Programme Education (OPE). The OPE 1.1 and 4.1 Policy Measure supported development of soft skills by teachers and students. The OPE 3.1 Policy Measure targeted Roma students. The ROP projects supported infrastructure reconstruction and modernisation, and improvements in energy efficiency in Slovak schools. All dependent and independent variables were computed for the district level (LAU 1) in the periods 2011, 2012 and 2013.

3.3. Factor analysis

The social and economic research frequently copes with problem of multi-collinearity. Multi-collinearity is a statistical phenomenon, where two or more predictor variables in a multiple regression model are highly correlated, meaning that one can be linearly predicted from the others. We firstly computed simple correlations between dependent and independent variables. The correlation matrix indicated high correlations between shares of Roma population, unemployment rates, share of population in material deprivation, and share of population aged 35+ with primary education. High incidence of multi-collinearity may undermine results of the regression analysis. We found eight independent variables with correlation coefficients higher than 0.6 (and significant on the 0.05 level). The factor analysis alleviates problems with the multi-collinearity. Factor analysis helps by reducing high number of independent variables to a lower number of factors. The factor analysis reduced the above mentioned eight independent variables to three factors (Table 1):

- Factor 1 loads on shares of population in material deprivation, share of Roma population, unemployment rates and shares of population aged 35+ with primary education. The factor was labelled 'poverty'. It explained the highest share (41.79%) of the total variance in eight independent variables. The factor indicates high shares of population living in poverty in the district.
- Factor 2 accounts for high positive loading on shares of population aged 35+ with lower secondary education and high negative loading on population aged 35+ with tertiary education and in receipt of the average wage. The factor indicated high shares of working population with lower wages and lower secondary education in the district.

[3] Slovak schools employ teachers on full-time and part-time contracts. Statistics on education report numbers of teachers on part-time contracts. Details on average volumes of the part-time contract however are not provided. Data on the full-time equivalents are not published. This analysis therefore took into account teachers on full-time contracts only.

The factor was labelled 'lower-middle class'. It explained 34.67% of the total variance in eight independent variables.

- Factor 3 loaded only on one independent variable – share of population aged 35+ with upper secondary education. The factor indicates high shares of middle-income / middle – education population and was labelled 'middle class'. It explained 12.94% of the total variance in eight independent variables.

All three factors explained 89.41% of the total variance in variables in factor analysis. The high explanation rate indicates significant mutual dependence of the variables under analysis. The Bartlett's test of sphericity and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy, indicated good fit and reliability of the model (Table 1).

Table 2: The Factor Analysis

Factor	Factor 1 (poverty)	Factor 2 (lower-middle class)	Factor 3 (middle class)
Share of population in material deprivation, %	**0.958**	0.218	-0.064
Share of Roma population, %	**0.960**	0.014	-0.021
Unemployment rates, %	**0.878**	0.357	-0.081
Population 35+ with primary education, %	**0.700**	0.608	-0.118
Population 35+ with lower secondary education, %	-0.025	**0.943**	-0.123
Population 35+ with tertiary education, %	-0.282	**-0.874**	0.013
Average monthly wage, euros	-0.393	**-0.758**	-0.140
Population 35+ with upper secondary education, %	-0.096	-0.027	**0.988**

Notes: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 4 iterations. Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.772. Bartlett's Test of Sphericity: Approx. Chi-Square = 1966.37; df = 45; Sig. = 0.000.

3.4. Regression analysis

Linear regression examines whether and by how much some independent variables (unemployment rates, financial inputs to education, etc.) impact a dependent variable (drop-out rates, success rate for the 9th graders in reading and math literacy). Parameters of the regression model were set to compute all significance levels higher than 0.05. The 'backward' type regression was used. The backward regression starts with all candidate variables, tests the deletion of each variable using a chosen model comparison criterion, deletes the variable (if any) that improves the model the most by being deleted, and repeats this process until no further improvement is possible. The linear regression employed (i) eight independent variables reduced to three factors (see previous chapter), and (ii) seven original variables (students per teacher, investments from national public and European resources per one student, divorce to marriage ratio and urban population rates). Table 2 report results of the linear regressions for primary schools in 79 Slovak districts. The table reports (a) values of the adjusted R squared and (b) values and significance levels for the standardised regression coefficients (*B*). The standardized regression coefficient enables comparison of importance by diverse independent variables (euros per student, teachers per student, divorce to marriage ratio in percent, share of Roma population in percent, etc.). Transformation of original regression coefficient to standard regression coefficients helps to tell which independent variable has higher impact on change in a dependent variable. Value of the *B* coefficient for variable 'Poverty' is 0.699 while the value of the *B* coefficient for variable 'state funding per student; is 0.099 (Table 2). It indicates that poverty impacts the dependent variable (drop-out rates) much more than the state funding per student. Sign (+) or (–) indicates type of correlation.

The dependent variable is positively correlated with poverty ('the more poverty the more drop-outs') and negatively with 'lower-middle class' ('the higher share of lower-middle class the fewer drop-outs'). The significance level (*Sig*.) indicates whether an independent variable is a meaningful predictor of a dependent variable or not. The lower value of the *Sig*. the higher likelihood that an independent variable is a meaningful predictor of the dependent variable. In statistics *Sig*. value 0.05 is a common threshold. We applied the backward likelihood ratio type of regression. Only variables significant on the 0.05 were retained. Decrease in dropout rates ('early school leavers') below 6% is a key national target in field of education in Slovakia. The regression analysis generated best results to explain dropout rates in primary schools (Table 2). Six independent variables explained 61.1% of total variance between 79 Slovak districts in terms of dropout rates. The 'Poverty' variable accounted for the highest explanation power. The 'Poverty' variable is a factor score. The 'unemployment rates', 'material deprivation', 'primary education attainment' and 'share of Roma population' generated bulk of factor score for the 'Poverty' variable'. The highest dropout rates in primary schools (Figure 1) were found in underdeveloped districts in southern and eastern Slovakia (Revúca = 15.5%, Rimavská Sobota = 14.9%, Košice II = 14.6%, Michalovce = 13.7%, and Vranov nad Topľou = 11.1%). The 'lower-middle class' variable had negative correlation while the 'divorce to marriage ratio' positive correlation with the dropout rates. It means that higher regions with higher shares of the lower-middle class had lower shares of drop-outs. Regions with high divorce rates had higher drop-out rates. The numbers of students per teachers and state funding per student accounted for positive correlation with the dropout rates ('the more teachers and money the higher drop-out rates'). This rather counterintuitive result is explained by funding rules. Primary schools in poor regions use to have smaller classes, and higher numbers of teachers and higher relative funding than schools in developed urban areas. As for the European support, the regression analysis found that primary schools implementing projects under the OPE Policy Measures 1.1 and 4.1 achieved lower drop-out rates. We assumed that these projects had positive impacts on drop-out rates. These positive effects, however, were not able to compensate for impacts of socio-economic status of the students.

Table 3: Linear regression for primary schools in 79 Slovak districts (LAU 1) in 2011-2013

Dependent variable:	**drop-outs (%)**		**Test 9 - AMS**		**Test 9 - AMS**		**Test 9 - ASR**		**Test 9 - ASR**	
			Reading		**Math**		**Reading**		**Math**	
	B	***Sig***	***B***	***Sig***	***B***	***Sig***	***B***	***Sig***	***B***	***Sig***
Factor 1 (poverty)	0.699	0.000	0.210	0.003	0.378	0.000	-0.296	0.000	-0.288	0.000
Factor 2 (lower-middle class)	-0.119	0.030	0.288	0.000	0.304	0.000				
Factor 3 (middle class)										
Urban population, %							0.374	0.000	0.216	0.000
Divorce to marriage ratio, %	0.098	0.028			0.294	0.000	-0.201	0.001	-0.273	0.000
Students per teacher	0.164	0.001								
State funding per student (€)	0.099	0.019			-0.330	0.000	0.363	0.000		
ROP, € per student			-0.165	0.030						
OPE 1.1 / 4.1, € per student	-0.130	0.003								
OPE 3.1, € per student			0.218	0.002	0.178	0.011	-0.153	0.028	-0.196	0.003
Adjusted R^2	**0.611**		**0.186**		**0.232**		**0.230**		**0.308**	

Notes: Only variables with significance levels 0.05 and lower are reported. The dependent variable 'drop-outs' is reported for mandatory education on primary schools only and is not compatible with the Eurostat indicator of drop-out rates for students in age group 18-24 years. State and European funding is in euros per student. AMS = average mark of a school; ASR = average success rate of a school.

The regression analysis explained lower shares of variance in educational outcomes in terms of average mark of schools (AMS) and average success rate of schools (ASR) in the Test 9 exercise. The regression explained 23.0% in total variance in ASR in reading and 30.8% in mathematics. 'Poverty' remained the most important explanatory variable for ASR in reading and maths (it also turned out to be important for explaining AMS). Districts with higher levels of poverty accounted for lower ARS in reading and mathematics. The ASRs in reading and mathematics were positively correlated with share of urban population and negatively with divorce to marriage ratio. Students from urban areas and/or complete families therefore performed better in maths and reading than students from rural areas and/or incomplete families in the Test 9 exercise. Projects supported from the OPE Policy Measure 3.1 targeted marginalised Roma communities and were implemented in districts with high incidence of poverty. It explains positive correlation of the OPE 3.1 projects with AMS and negative correlation with ASR. Most OPE 3.1 investments concentrated in districts of southern and eastern Slovakia (Revúca, Rimavská Sobota, Rožňava, Brezno, Gelnica, Brezno, Sabinov and Vranov nad Topľou). Signs of regression coefficients in fact indicate that the OPE 3.1 projects were well-targeted on an at risk group of students with poor educational performance. The OPE 3.1 projects accounted for quite low allocations and were not able to improve educational attainment of students in a short time. Total state support to primary schools was €1,797m and total European support (ROP and OPE projects) was €156m in period 2011-2013. European resources accounted for some 8.7% of the national public support. It however generated some positive results in educational outcomes of the Slovak students. The regression analysis indicated that the OPE 1.1 and 4.1 projects helped to decrease drop-out rates in Slovakia.

4. DISCUSSION, CONCLUSIONS AND DIRECTIONS FOR FURTHER RESEARCH

Problems with the student performance are closely correlated to problems of social inclusion in Slovakia. The explanatory power of the regression analysis was significantly higher for the drop-out rates than for the Test 9 scores. Poverty was by far the most important factor behind high rates of drop-outs. State funding accounted for much lower *B* coefficients. Poverty remained a very important factor in the Test 9 (AMS and ASR scores), but state funding per student seemed equally important. The result indicates that once families pass the poverty threshold, student performance is more receptive to the state funding. Further research may bring more details on the relationship between investment in social inclusion and formal education. The key conclusion from the analysis is that neither national public nor European funds alone are able to address problems with increasing drop-out rates. Regional distribution of the drop-out rates is strongly correlated with distribution of Roma communities, material deprivation, and unemployment. The state has to address problems with poverty and marginalisation first and then turn to policies of primary education. The policy recommendation is to implement complex local strategies, which address multiple problems in one policy package.

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INNOVATION MANAGEMENT IN THE CONTEXT OF SMART CITIES DIGITAL TRANSFORMATION

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ABSTRACT

The paper introduces important aspects of doctoral research concerning innovation management in the context of business management challenges posed by digital transformation. The research was conducted as part of the Research Centre of Business Administration in The Bucharest University of Economic Studies, Romania. The study aims to identify and showcase key components of innovation management - with a primary focus on topics spurred by the recent wave of digital evolution. Against this background, the issue of smart city solutions makes for an interesting case – firstly, because it affects a large number of people and businesses around the globe and secondly, the complexity of the topic forces companies to pursue different innovation management approaches to successfully manage its associated challenges as well as opportunities. The paper consists of an overview on the existing literature and a concise outline of our research. Both research from professional associations as well as recognized publishers were considered. Furthermore, market data were gathered and processed. More than 50 publications were analyzed to better understand trends in digital transformation and its impact on innovation management. Our research revealed that in the light of the fundamental challenges posed by digitization, companies are required to take a structured approach towards their innovation management options. In the context of smart city solutions, the adoption of the "4I Solutions Model" enables businesses to choose the strategic option suitable to their individual case. In a nutshell, this framework includes four different approaches ranging from initiating groundwork innovation internally to establishing partnerships with selected external parties.

Keywords: *Innovation Management, Digital Transformation, Business Models, Smart Cities*

1. INTRODUCTION

Urbanization is a central topic across scientific disciplines against the background of more than 50% of the worldwide population living in urban areas. Until 2050, this number will double putting the existing, stressed city eco systems under additional pressure. The negative results are already visible around the globe with poorly-developed transportation systems, decaying infrastructure, insufficient affordable housing, inadequate energy supplies, poor social services, rising crime, overburdened healthcare systems or exhausted waste management capacities. The mounting challenges in combination with a high level of complexity due to the interconnectivity and interrelation of issues puts municipalities to a real test. On a positive note, companies with innovative solutions are able to benefit from by double bottom line by increasing profits and improving the living conditions of million people worldwide. Understanding the social, economic and technical implications of smart city solutions is the key for companies to unlock opportunities in this field. At the same time, the role of disruptive innovation is critical for companies to improve their competitive positions. Staying ahead of other market participants is closely associated with selecting the right innovation management strategies which are strongly influenced by the lastest wave of digital transformation.

In this context, the presented research consists of an overview on the existing literature. Both research from professional associations as well as recognized publishers were considered. In order to provide for a hollistic and balanced picture, more than 30 publications were analyzed to better understand trends in digital transformation and its impact on innovation management. The aim of this paper is to contribute towards the discussion on smart city solutions from a company perspective with a particular focus on innovation management approaches available (Dirks et al., 2009; 2017; Betis et al., 2018; Ross 2017).

2. CHARACTERISTICS OF DIGITAL TRANSFORMATION

The issue of digitization is often associated with optimizing business processes. In this context, automation and standardization are key components in the hunt for improved efficiency in any given business. Essentially, it centers on the question of implementing leaner and cost-efficient processes and procedures. By taking these measures, businesses strive towards improving their market position, while firms lacking the skills or motivation to innovate their ways of doing business tend to find themselves at the back of the pack. As a matter of fact, digitization efforts are often perceived as cumbersome and require significant resources, but the rewards in the form of better customer centric operations and easier scalability should be taken into account. One of the perceived advantages of digitization is access to business and market data, which can be processed and utilized for improving strategic decision making. In the light of a VUCA business environment, a sophisticated data management system can become an important factor for future success. Therefore, firms tend to focus on holistic software options as a means for underpinning their digitization efforts. All in all, firms have been confronted with those challenges for more than 20 years. Surprisingly though, only a limited number of businesses has been capable of successfully implementing standardized and automated processes. According to research conducted by MIT, roughly 1 in 4 established firms has fully digitized their internal procedures and processes. This is particularly alarming given that digitization efforts are regarded as a first step towards achieving the merits of turning digital transformation into new business opportunities (Markovitch & Willmott, 2014; Nandram & Bindlish, 2017; Ross, 2017). Against the background of digital transformation, businesses face substantial challenges with technological development such as cloud computing, internet of things and artificial intelligence resetting the rules of the game in business. Given the multitude of topics raining down on companies, they sometimes have difficulties in seeing through this complexity. Additionally, adjusting ways of doing business under these circumstances can be challenging for individual market players who have been settling on a rent-seeking modus for an extended period of time. Digital transformation turns markets and their players upside down with the rules of supply and demand being redefined. As a consequence the power dynamics between firms and customers is shifted, leaving businesses with open issues in the field of creating new value propositions for their clients, attracting digital savvy talent, building and maintaining a culture of sharing and caring among others. In a nutshell, digital transformation goes far beyond building a new app. It comes down to implementing a new way of doing business (Schallmo et al., 2016; Ross, 2017; Newman, 2018; Richards, 2018). In order to facilitate the digital transformation journey, Futurum Research (2018) publishes an annual digital transformation index to outline the most essential impact factors for internally driving developments and changes to embrace the dawning digital era. In this context, figure 1 underlines the importance of technological partnerships, in combination with a supportive company culture including management assistance as well a group of skilled employees. This essentially summarizes the backbone of digital savvy company embracing change and innovation.

Figure following on the next page



Figure 1: Internal drivers of Digital Transformation (Newman, D., 2018. 2018 Digital Transformation Trends: Where Are We Now?, Forbes: 20 August 2018, Retrieved 3 January 2019 from: https://www.forbes.com/sites/danielnewman/2018/08/20/2018-digital-transformation-trends-where-are-we-now/#5ce36efbc647)

3. IMPACT OF DIGITAL TRANSFORMATION ON BUSINESS OPERATIONS AND MANAGEMENT

Digital transformation changes the fundamentals of doing business by disrupting business models across the globe. While this is not evenly distributed across the planet, Hirt and Willmott (2014) have identified a set of distinct driving forces. Those seven elements impact on traditional business operations and allow firms to reconsider their strategic options going forward:

1. New competitors enter the stage:
Companies have been taking rent-seeking position often protected through insurmountable entry barriers. Given the rapid development of internet services, digital market participants have been enabled to break into formerly impenetrable territory. At the back of refined management approaches, technical skills and talented employees, those firms put pressure on the current champions. AirBnb has successfully disrupted the hospitality industry without owning a single accommodation, while direct bank ING Germany has made the case of attracting millions of clients without a single branch. The next step of this digital trend is that successful firms use their brand value to venture into other fields of business as showcased by Apple launching its payment service in a growing number of countries (Handelsblatt, 2018).

2. Prices and margins come under pressure:
Customers are no longer caught in a weaker position against companies thanks to a drive towards greater transparency triggered by the internet. Firstly, the number of products and services has increased substantially, giving customers additional choice. Secondly, an abundance of testing and review websites allow buyers to see through flashy marketing and advertisements straight through the actual value of available goods. This helps bringing prices for end-customers down, while at the same time firms face pressure on prices and margins. Given regional differences in digital sophistication, this however might not be case in all countries.

3. Customer behavior triggers a winner takes it all dynamic:
The development associated with digitization fuels a customer log-in dynamic that allows web-based champions to profit from superior management skills in combination with state of the art organizational set-ups. This generates additional business and works as a vital tool in the fight for talent. Customers perceive these firms as desirable and choose them as go-to places, creating a virtuous circle of success breeding new success. (Grab et al., 2018a)

4. The invention of plug-and-play business models:
Against the background of individual champions being able to take it all, there is a question to what extend smaller competitors are capable of securing their share of the digital pie. The answer is fairly simple since smaller niche players are able to use the existing platform structure of market heavyweights to reach out to clients. In this way, both sides benefit from this business relationship. While bigger businesses expand the product or service range to be offered to their clients, smaller players serve customers in a familiar and secure platform environment. (Schallmo et al., 2016)

5. Fierce fight for the right talent:
In the light of dramatic changes expected in the labor market of the future, mainly because of phenomena such as the use of robotics and artificial intelligence, companies need to revisit their HR and recruiting strategies to come up with winning staffing plans. Given that Frey & Osborne (2013) underline that 1 in 2 professions could be replaced by machines affecting both blue and white collar jobs, companies will have to decide on jobs to be made redundant. On the other hand, specialized profiles might be even more difficult to come by given the expected fight for talent. (Manyika et al., 2017; Nedelkosa & Quintini, 2018)

6. Convergence of global supply and demand:
Online retailers have conquered the globe. While this might differ from region to region of the world, the growth of e-commerce is significant. Against the background of this rise in online retailing, customers expect a harmonized experience across borders. This includes the entire value chain from product selection over delivery to payment options and customer support services.

7. Constantly evolving business models:
Digital transformation has no finishing line that companies can reach with the aim of securing their position in the market. It is rather a gradual process which sees different waves of digital evolution. Therefore, successful companies build adaptable and resistant organizations capable of evolving swiftly based on a customer-centric approach. Business models are continuously changed, adapted and developed to stay on top of their competition. The hospitality and tourism industry provides for an interesting case in this context with market players such as TripAdvisor and booking.com being at the forefront of broadening their client and revenue base through new products and services. (Schallmo et al., 2016)

4. INNOVATION MANAGEMENT IN THE DIGITAL ERA

With relentlessly involving business models becoming an imperative of the digital era, the demand for innovation management can be regarded as a factor of strategic importance. (Maier et al., 2013; Maier et al., 2014; Kiehne & Olaru, 2017). In this context, firms need to find a middle way between incremental development and disruptive change or as March (1991) pointed out – between exploration and exploitation. Both strategic options require employees with different skills, different tools and overall a different team or company culture. Further, they offer a deviant risk and return profile with exploratory ventures often being eyed as overly

bold and risky. Figure 2 showcases that misbalance between the number of exploitation projects perceived in companies and the actual rewards generated by exploratory projects. The latter allows firms to turn their disruptive ideas into real profits. (Kahn, 2012)

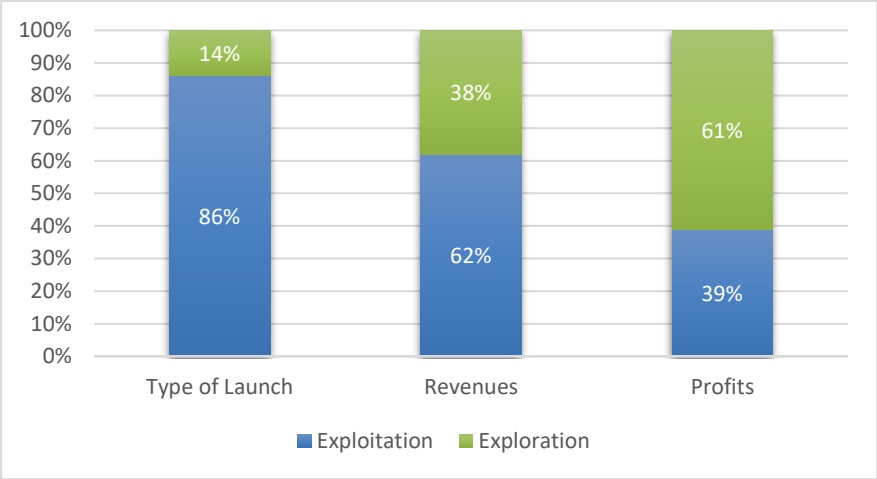


Figure 2: Spread and benefit of innovation types (Kahn, K., 2012. The PDMA Handbook of New Product Development, Chichester: Wiley)

5. A POSSIBLE SOLUTION TO OVERCOME INNOVATION OBSTACLES IN THE CONTEXT OF SMART CITIES DIGITAL TRANSFORMATION

5.1. What is smart cities?

Cities around the globe have a strong attraction to a growing number of people. At this point roughly 50 percent of the World's population lives in urban settings. With this trend not expected to lose momentum in the years to come, the number of people living in cities is projected to double by the year 2050. Such substantial congregations of people come at a price which is showcased by some of negative phenomena associated with urbanization: Under or poorly-developed transportation systems, decaying infrastructure, insufficient affordable housing, inadequate energy supplies, poor social services, rising crime, overburdened healthcare systems or exhausted waste management capacities (Johnson, 2008; Marceau, 2008; Dirks et al., 2009; Betis et al., 2018). In the light of these overwhelming challenges, there is a broad consensus that incremental innovation and improvements of urban living will not be sufficient to reach crucial overarching targets such as quality of life or sustainability. With this in mind, more drastic and holistic changes are required spanning across numerous sciences and disciplines. Essentially, smart city is a disruptive innovation approach that focuses on a forward-looking city, as defined by Giffinger et al. (2008). Harrison et al. (2010) complements this forward-looking nature of smart cities by a strong IT dimension using an intelligent flow of collected and processed data with the aim of a smart and interconnected urban area. In general terms, this urban area connects the existing physical infrastructure in the form of buildings, roads and energy lines, the IT infrastructure both tangible and intangible, the social infrastructure, and lastly the diverse business infrastructure to reap the benefits of the joint smart thinking in a given city. A view shared by various other scholars, including Washburn et al. (2010) as well as Kanter and Lintow (2009). The use of numerous new technologies is at the core of smart city solutions. Given the multitude of technological advancements, it includes such diverse disciplines as computer science, architecture, electrical engineering, business management, social science or medicine. The effective deployment and integration of these disciplines shall lead to creating more safe, secure, sustainable and inclusive urban areas, which could then be labelled smart (Betis et al., 2018).

5.2. What are the main challenges from a company perspective?

A smart city is a field of business that allows companies to benefit from a rising demand across various disciplines. At the same, the degree of interconnectivity and complexity is what makes superior management skills essential in the context of this topic. In their integrated study, Chourabi et al. (2012) defined eight individual factors of influence to be considered for designing and implementing smart city solutions:

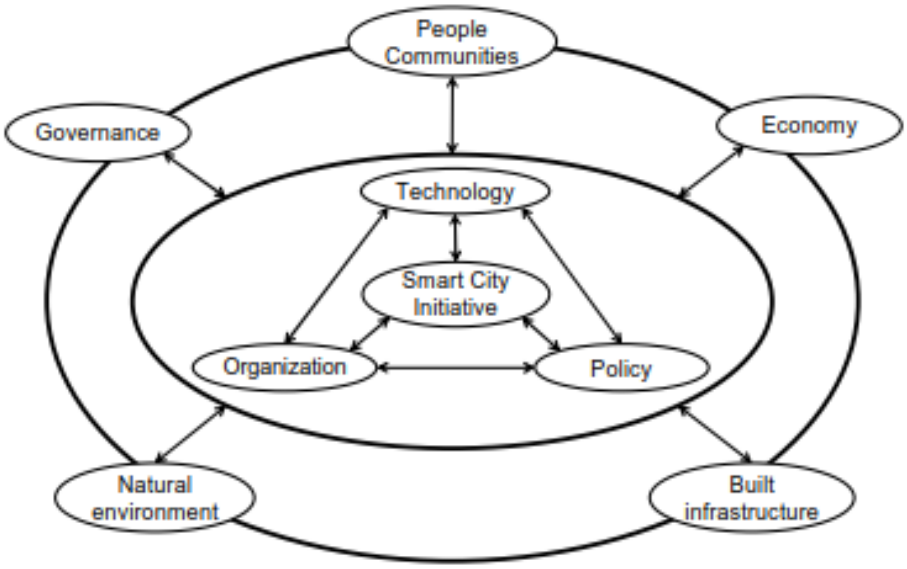


Figure 3: Smart City Initiatives Framework (Chourabi, H. et al. (2012). Understanding Smart Cities: An Integrative Framework. 45th Hawaii International Conference on System Sciences. 2289-2297. 10.1109/HICSS.2012.615.)

As part of this framework, a holistic approach towards smart cities is taken, providing a profound understanding of the individual elements to be considered. Essentially, it highlights that various challenges are indeed more of an organizational or social dimension rather than being strictly of a technical nature, which could be addressed by either digital innovation or ramping up investments in people, gadgets or infrastructure. This translates into the requirements for managing stakeholders, understanding interfaces, potentially competing interests and values as well as the full scale of social and political complexity. In this light, smart city solutions may require companies aiming to secure their share of the business pie to opt for the right strategic options when it comes to market their disruptive products within a challenging context (Grab et al., 2018b).

5.3. A possible framework for innovation management in the context of smart cities digital transformation

In the background of the innovation challenge faced by companies interested in benefiting from rising demand for smart city solutions, the issue of drafting, selecting and pursuing the right strategic option is essential. In this context, current research in combination with expert opinions and market observations point towards four widely used approaches allowing firms to innovate in the field of smart cities in accordance with their individual capabilities and need. In this context, the adoption of the »4I Solutions Model« enables businesses to choose the strategic option suitable to their individual case. In a nutshell, this framework includes four different approaches ranging from initiating groundwork innovation internally to establishing partnerships with selected external parties.

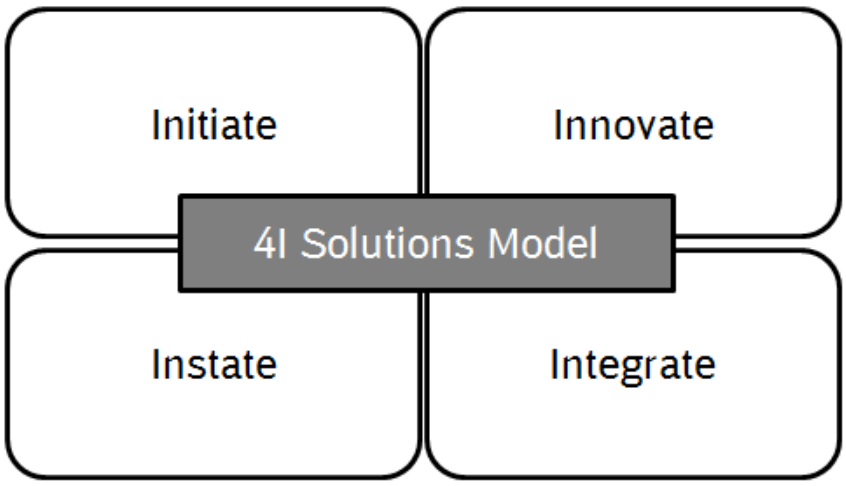


Figure 4:"4I Solutions Model" for Innovation Management in the context of Smart Cities Digital Transformation (own illustration)

1. Initiate:
Firms have the option to start new innovation efforts in the field of smart city internally. This may require significant ramp-up costs given the scope of the solution targeted by the firm - the larger the foreseen investment, the higher the probability that only large corporations are capable of initiating such investments. In this context, those types of companies have the opportunity to cover a wider range of smart city topics with additional capacities and skills in integrating products. Not surprisingly, companies with strong capabilities across various industries such as General Electric rank very highly in smart city indexes such as the Compass Intelligence A-List Index. In contrast to globally active corporations, start-up companies also play an important role in triggering innovation with regards to individual solutions within the wider smart city framework. Given their customer-centric approaches, combined with lean structures and adaptive business models, those firms are in the position to swiftly initiate new smart city: flying car pioneer Lilium or waste management firm NordSense are just two examples of the vast and diverse start-up scene contributing to innovation for future urbanization.

2. Innovate:
Another option concerning innovation management in the field of smart city solutions is the pooling, integration and extension of internal capacities with the aim of creating market-ready products and services. In this regard, firms focus on building on top of existing resources and capabilities. Experience and knowledge can be leveraged, in order to lower costs associated with starting from scratch. At the same time, the structured process of integrating and developing existing batches may form new disruptive ideas.

3. Instate:
Given the complexity of the smart city universe, firms can choose to utilize their existing network to complement products and services with new value propositions developed in other parts of the group or partner network. Thus, reducing costs associated with innovation management while covering a much broader scope of the smart city landscape. Transport providers such as German railway company Deutsche Bahn are therefore able – through a network of subsidiaries - to combine different innovation approaches in autonomous driving, intelligent transport and traffic management with last mile solutions to give customers a more integrated and holistic product and service experience (Meyer, 2017).

4. Integrate:

While tapping on internal resources and skills is often perceived as the favorite while most cost-effective option regarding innovation management, firms may find themselves in a situation where integrating external resources and skills are considered to be a superior alternative. Depending on the strategic plans of a firm, acquiring ideas and resources may fast track the road towards becoming a significant player in the field of smart city solutions. Verizon's take-over of IoT specialist Sensity is just one example of a major corporation acquiring technical expertise in growth field to catapult themselves towards the front of technological advancements associated with smart city solutions. (Maddox, 2016; Grab et al., 2018c)

6. CONCLUSION

As outlined throughout the paper, companies are faced with substantial challenges in the context of digital transformation. In order to stay ahead of the competition, they are forced to innovate continuously with a strong focus on disruptive solutions creating real customer value. In this context, an increase in revenues may offset the tendency towards tighter profit margin. For companies addressing challenges in the field of smart city solutions, the awareness of the level of complexity and the multitude of facets is important. Thus, it will determine the strategic options and shape the innovation management suitable to any given organization. Going forward, additional research will be required to put the desk study results of this paper to a practical test. In addition to that, smart city solutions are expected to evolve in the years to come providing ample opportunities for further scientific groundwork both on a macro as well on a company level.

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THE ROLE OF THE BUSINESS IN THE PROVISION OF SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT

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ABSTRACT

In the article, the role of business in ensuring sustainable social and economic development and the idea of the concept of corporate social responsibility in large companies are analyzed not only by standard commercial and financial indicators. The broader request of the public and its potential sustainability, as well as compliance with business development, has been studied. The possibility of solving the problems of sustainable development of society in the context of contradictions between the tasks of economic, ecological and social development has been studied. The importance of developing a more progressive theory of development and existing opportunities for using the concept of corporate social responsibility to address the social and economic problems of the regions was underscored. In the article the current status of the concept of corporate social responsibility and ways of its adaptation to the conditions of the Republic of Azerbaijan are considered. In the existing political and economic pressure condition the importance of ensuring the state security and mainly the security in the economic field increases day by day in Azerbaijan Republic. Given the fact that economic security is the large-scale concept based on some principles (developed socio-economic system, ensuring the sustainability of the national economy etc.) we can observe that several internal and external factors highly affecting on the economic security of a state. From this perspective the role of business for ensuring the economic security and sustainable socio-economic development is that it facilitates the influence of the firm and companies on development of socio-economic development and the stability of the national economy. Business activity of the firm and companies on sustainable socio-economic development is important on the development of the state's economic system and maintaining of the employment of people, meeting the needs of people by goods (services, jobs), taking part in creating a competitive environment and forming the existing budgets are important subjects and they have been discussed in this paper. In this paper approaches analysis of the author for business concept on ensuring of socio-economic development are introduced, the important role of the business for socio-economic development is described, socio-economic development dynamics of the business is researched, and problems of business experienced on this way are investigated.

Keywords: *concept of social responsibility, priorities of sustainable development, the scope of business opportunities*

1. INTRODUCTION

In the context of contradictions between modern economic, environmental and social development goals, the provision of sustainable development for the society is very important. In order to provide strong social development (economic, environmental and social), it is necessary to build a strong relationships between all aspects of business and to identify priorities for achieving goals set. The concept of CSR, which is already formed in the world, is still not being used efficiently in the business world of Azerbaijan. Though the concept of corporate sustainable development have been widely accepted in the world, social responsibility criteria is not correctly applied in Azerbaijan, and both government and population do not approach business in a right way. In the domestic practice, the implementation of the CSR concept requires the transformation, taking into account the characteristics of transformation, the mentality of the population, public perceptions, and the peculiarities of the organization of the

economy in different regions. It includes ways of environmental regulation based on economic activity, and particular ecological conditions of some regions that have a controversial impact on socio-economic development. On the one hand, it is necessary to preserve unique natural conditions, through restricting the development of industry near certain territorial units. On the other hand, a new sustainable economic development course, focused on tourism development and direct use of natural resources, can have a positive impact on the environment and the living standards of the population.

2. THE REGIONAL SOCIAL AND ECONOMIC PROBLEMS

It is important to determine the more progressive development theories and available capabilities for usage of the corporate social responsibility concept to address the social and economic problems of the regions. Determination of sustainable development priorities requires the consideration of the need for modern economic practice, that is, the importance of corporate social responsibility. In order to achieve targets based on economic mechanisms that choose the objectives of sustainable socio-economic development, it is necessary to prioritize and select the right direction. Elimination of the existing contradictions and solving problems on the basis of mutual responsibility at any level is the requirement of the modern era. In the modern period, there are certain companies that are dealing with the development of theoretical background of the sustainable development, and these companies must act in that direction. The current status of the Corporate Social Responsibility Concept and the ways of co-ordinate the activities of companies operating in the Republic of Azerbaijan with this concept should be analyzed and studied. In recent years, the attention of scientists has been focused on the solution of both national and regional levels of sustainable development and corporate social responsibility. However, we stay on the opinion that, the aspects of the corporate social responsibility theory should be reflected in practical life. As it is qite difficult to define priorities, the responsibility and the role of business increases in ensuring the sustainable development of the society. As a result, the concept of Corporate Social Responsibility (CSR) increases not only the standard commercial and financial performance, but also the broader public interest and sustainable development requirements, the business development, and the actual problem of the day [1.p.159-160]. In particular, it is important to study the possibilities of regional business in solving these problems in modern scientific literature. There are numerous publications of academicians and professionals across the world dedicated to the theory of sustainable socio-economic development and corporate social responsibility. Undoubtedly, there is no systematic approach to the scientific debate, which is based on the sustainable development of the economy. The concept of transition from a particular region, based on relevant normative-legal acts. All these problems should be solved using modern methods of empirical and theoretical research, economic and statistical analysis.

3. THE PRINCIPLES OF THE CORPORATE SOCIAL RESPONSIBILITY

Adressing socio-economic development of the Republic of Azerbaijan based on social responsibility should be disclosed in the context of scientific approaches. Observations and analysis show that the business should be characterized by the current state of social responsibility, so that the definition of social, business, financial and social responsibilities should be defined in a single approach. In line with the objectives of sustainable socio-economic development, it is important to prepare a package of proposals for the development of social responsibility of businesses, which is the actual problem of the day. In modern conditions, clarification of the corporate social responsibility principles should be based on existing approaches to the analysis of business, business ethics, stakeholders, corporate sustainability, corporate approach and sustainable development concepts. From this point of view, the existing contradiction between economic, social and environmental development goals should be

identified based on the analysis of the socio-economic development of a particular region. [3.p.45.72]. According to the obtained analysis, the process of regulation of economic development in the Republic of Azerbaijan on the basis of modern requirements makes necessary the local authorities to set requirements in this aspect in accordance with certain conditions and possibilities in order to activate companies' social responsibilities. As apart of modern social behavior priorities, it is important to direct the possible common interests of the state and business within social responsibility and to establish mutually sustainable and efficient mechanisms for the solution of social problems. The perspective directions of the social programs of the Azerbaijani companies, which have been considered in the context of sustainable development, can contribute to the effective implementation of their business strategies. From the aforementioned, it can be concluded that there is a contrast between the economic, ecological and social development, due to the contradictions between the production of goods or services, the environmental protection and the desire to maximize the quality of the social environment. One of the main objectives of sustainable development is to find innovative solutions to the problems that arise. Such a decision can be regarded as the application of socially responsible business behavior models. The concept of corporate social responsibility, business ethics, stakeholder understanding, corporate sustainability, corporate citizenship concepts can be incorporated here in the context of social responsibility behavior models and related concepts analysis. The analysis of these concepts enables each concept to complement each other in the process of evolution. The categories, integration, development trajectory need to be coordinated and properly managed as a single concept. The concept emeged as a result of corporate social responsibility integration must allow to measure us not only as economic instrument, but also as social and environmental aspects of life. [4.p.31].

4. THE WORLD EXPERIENCE OF THE CORPORATE SOCIAL RESPONSIBILITY PROBLEM

It is more effective to take into account the peculiarities of transformation changes at the regional level in the world practice of the corporate social responsibility, taking into account the peculiarities of the organization of the economy in specific regions. The socially responsible behavior of big companies (the social and economic problems of the country, the effective use of the budget) in the conditions of the Republic of Azerbaijan lead to the indisputable benefits to the society, the reduction of market failures and the creation of more controversial business environment. Modern business is not only an economic entity, but also an active participant in provision of social change that takes part in shaping of cooperation mechanisms with charities, non-profit organizations and government agencies. It means transition from traditional charity to strategic social responsibility behavior [5.p.87]. The stakeholders involved in the development of social responsibile behaviours of companies operating in Azerbaijan should consider businesses in three blocks while studying external and internal relationships. That is, from the prespective of formation of the database of resources, availability of budget for social expenditures and allocation of funds for environmental protection and so on. Combining the business processes based on the various social programs implemented through appropriate economic mechanisms, can act as the main practical tool for regional development as a whole. There must be special requirements to create favorable conditions for people who are expecting a further improvement in the socio-economic situation. The measures and methods to be implemented in this direction should be identified. Necessity of business activity to solve social problems arising at the modern stage of successful sustainable development of the country is undeniable. In this regard, the role and functions of the state should be expanded fundamentally.

5. CONCLUSION

All above discussed analysis bring to the conclusion that, studying the theoretical and practical aspects of the level of assessment by engaging employees in social and environmental projects by providing sustainable development in a certain region is not in the right direction to develop. These requirements are urgently needed to study key corporate social responsibility issues in sustainable regional development. These requirements can be listed as mentioned below:

1. Theoretical approaches to the development concept should be systematized to understand the concept of sustainable socio-economic development and corporate social responsibility;
2. Identify ethical issues, corporate sustainability, and issues that are of interest to citizens at corporate level, justified by corporate social responsibility and relevant incomprehensible concepts;
3. To analyze socio-economic development of the region to identify problems;
4. To accelerate socio-economic development of the Republic of Azerbaijan, social sustainability and behaviors of the companies must be analyzed through increasing social responsibility in companies;
5. In order to ensure sustainable development of the Republic of Azerbaijan, it is necessary to formulate basic recommendations for the development of social responsibility of the business.

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MANAGEMENT INNOVATION OF PRODUCTS AND SERVICES IN STRATEGIC MANAGEMENT

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ABSTRACT

Modern business environment is very dynamic, unpredictable, turbulent, characterized by: a shorter life cycle of products or services, with expressive competition on a global scale, transition of society from an industrial to a society in which knowledge is treated like a critical resource in the economy, volatility of the market and economic conditions. Constantly impose new challenges that the management of a modern organization faces to achieve effective and efficient operations, which makes the manager's job more complex and dynamic, in constant struggle to rich the business position and to improve it. Only those businesses companies that are willing to promote innovation, change and continuously working on improving the quality of its products and services know what success is. Otherwise, their existence can seriously be in questione. Those companies that are not willing to innovate, will hardly be able to keep up with the global competition. Nowdays, in new circumstances the consumers in time, where their information are more accessible than ever, have a wide choice and the possibility to decide what is most acceptable to them. Crude market conditions do not forgive errors. Essential is to learning and to innovate in the modern business environment and it can not be only a privilege of management, but it must become obligation and needs of all employees. Organizations expected of employees that innovate becomes a state of their consciousness and aware of its usefulness in the way that every day do something for their environment and for their economic subject. By investing in employee skills, the company will indirectly invest in improving their products and services.

Keywords: *Business environment, Enterprise, Innovation, Lifecycle, Management, Products and services*

1. INTRODUCTION

In order for human society to develop, it is necessary to constantly improve, modify both material and intangible environment, such as changing people's awareness of it, overcoming factors that influence growth, progression. Innovation management is a wide process that encompasses the full spectrum of activities and measures that need to be applied to allow the idea to be translated into business value. This process can be applied to all kinds of ideas, whether it's products, processes, or services. Managing innovations is a wide process that involves the whole spectrum of activities and measures that need to be applied to enable the idea to be translated into business value. This process can be applied to all kinds of ideas, whether it's a product, a process, or a service. The main goal of Innovation Management is to provide a set of tools and tools that can provide inventors and creators with ideas to respond to challenges throughout the whole process and transform their ideas into innovations in the marketplace. The subject of this approach on the topic of "Innovation management" refers to the research and presentation of concrete facts about innovations in terms of concept, trends and phases of innovating innovation. The subject of work is innovation as a key factor in acquiring and maintaining a competitive advantage on the market.

One competitive advantage is to learn and to change. By changing their knowledge, employees change their attitude toward work and indirectly improve their products and services. In the literature, there are different approaches for determining this phenomenon, ranging from the mere observation of innovation as a technological phenomenon and at the end of innovation as a process, a set of activities leading from the idea to its commercialization. What can be concluded is that innovation is a key factor in achieving and maintaining the competitive advantage of a modern organization as a condition of its successful business. Considering that innovation and innovation in today's time are linked to the success of the company, therefore, great attention is being paid to this area within each company. The main goal of dealing with the topic of Innovation Management is to show how all the measures, tools and skills are used by a business entity , so that it can provide relevant solutions to all the challenges throughout the whole innovative process, in order to turn their ideas into innovations in the market, which will be able to survive and / or make progress. Managing innovation is the main direction and necessity of modern business. A key role in this is the strategic management of a modern organization, because the challenges of the environment need to be adequately addressed in order to achieve the set goals in the market. The structure of the work is visible from the content, so it can be said that the content structure of the work consists of an introductory part, in which we touch the subject, the goal and the structure of the access work, then we are conceptually familiar with the topic. In the second part where the importance of innovation and innovation in today's environment where the definition and concepts of innovation and innovation, the classification of innovation, the role of innovation strategy, innovation management, the definition of the scope of innovation, networking with innovations, then what are the stages in innovation management. In the third part of the ad hoc working paper, the latest information on trends in the field of innovations is described, it describes innovations in the Republic of Serbia, as well as innovations in the environment and countries in the region of Europe. The fifth part of the ad hoc work contains conclusions about the topic addressed, and the last sixth part contains the professional literature and sources used for processing the topic of access work.

2. THE IMPORTANCE OF INNOVATION AND INNOVATION INTO THE DATA ENVIRONMENT

The business environment is very variable and as such has a big impact on the company itself and thus their survival. The constant struggle of the company's owners with its management personnel to find adequate solutions for better adaptation to the turbulent environment. One of the most important rules for adapting the enterprise to a turbulent business environment is investing in innovation, which gives an advantage to the market in relation to other competitors. Very important innovations for the business of the company, and to see this in the next part, we will address: the definition of innovation and concepts of innovation, classification and division of innovations, role of innovation strategy, innovation management, definition of scope of innovation - strategic coverage, innovation pace management, networking with innovations, innovation management phases.

2.1. Definition of innovation and concept of innovation

In view of the fact that the importance of innovation is increasing, that is, the fight of those who are studying their studies and the greater the connection, today in professional literature can meet a large number of different definitions of the notion of innovation. We can say that there is no precise definition of innovation and innovation. Innovation can be defined as a set of activities undertaken by the enterprise, which are the source of new products or production processes. Enterprise development is mainly related to the existence of innovations. Innovation is the commercialization of a new idea, or its translation into a specific product, process or service.

Innovation is something that relates to the notion of an entrepreneur who seeks to foresee changes, reacts to them and accepts a high level of risk, and uses it as an opportunity in his business. But in spite of that, large companies are precisely those who have the ability and the necessary financial means to carry out innovations. It is a process that, as with any other process, is necessary to manage the right way. There is an expression of the role of managers at all levels and their ability to balance and optimize all of the innovative activities in the company. "Everything is flowing, everything is changing, only changes are constant", is a metaphor that completely reflects the modern business conditions. In previous times, business strategies have been defined and implemented most often in a reactive way in relation to processes in the environment, but also within the organizations themselves. Today, most organizations act proactively, that is, they notice possible events before their formation and react to them. Adaptation to numerous and varied changes, growth of competitiveness and continuous improvement of performance are the basic condition for the survival and success of modern companies. Initiation of the innovation theory first of all, we are associating for the name of J. Schumpeter, who in the first half of the last century marked innovation as the basic factor for achieving technological and economic development. He most often thought of replacing old technology with new technology, which he described as a creative destruction. According to the aforementioned author, innovation signifies the pimple of new technological knowledge, as well as market knowledge, with the goal of putting porters at the disposal of the products and services they want. Also, most authors believe that innovation is primarily related to technology and that they are mostly realized in this field, ie, today we can talk about technological innovations. New technology, as a result of innovation, results in the emergence of new business branches and firms. Technological changes play a very important role in the competitive dynamics. The changes they bring may have several outcomes (Stošić, 2007):

- Bring new products and processes with you;
- Change the value of the chain and the value of the company's constellation;
- Change the nature of rivalry between firms.

According to the OECD, innovation is the adoption of something new or significantly improved product, service or processed new marketing methods or new organizational methods in business, job creation ... Innovation must be a constant corporate activity because those who do not innovate are unsuccessful and disappear forever, by Preser and the Branch. We look at innovation as applying new knowledge to have new products or services that consumers will want for themselves. Throughout this process, innovation is just the initial step where a good idea is to be applied so that investment becomes an innovation. Innovation is never viewed as a separate event, but it is a whole series of activities that together make the process, and for the execution of the procedure only good management is needed. We can conclude that there are different definitions, but all of them lead to the same that they are activities that are different from those that were previously used. Four things are important for successful innovation (Jagaš, 2009, p.9):

1. New - something that previously did not exist or was created by a combination of available resources in a new original way,
2. Better - introducing something new just because it's new and existing, it does not make any sense and most often carries more damage than the benefits,
3. Needed - there must be a need to solve a problem or develop a new product or service,
4. Economically justified - in order to fulfill its purpose, the company must achieve direct or indirect benefits from innovation.

2.2. Classification and division of innovations

There are different classifications of innovations depending on the criteria applied. Below you will see three classifications of innovation (Krstić, Gavrić, Skorup, 2018, p.134)). According to the character or nature of innovation they are divided into(Krstić, Skorup, 2011):

- Social (social) - include the introduction of newspapers within the framework of the socio-political system and include: market (marketing) innovations; innovation in the field of governance (which improves productivity, product quality and usability, and the quality of work); political innovations (measures taken by the state, legislative measures) and institutional innovations (new state institutions establishing with the goal of providing or performing social services or functions).
- Social-technological innovations represent a set of innovations generated and gathered around a single centric product (eg, a personal computer, a series of social innovations challenging it).
- Technological innovations - basically have new technological advancements. These include product and service innovation and process innovation.

According to the relative importance in the innovation process of innovation are divided into:

- Incremental - means adjustments, improvements and improvements to existing products and services, they are predominantly represented in the modification of products and processes, and relate to the rapid embedding of customers' demands in the concept of products and processes.
- Radical innovations - imply the introduction of brand new products and services and / or processes in the lead entity. In small business entities, they arise as a result of the owners 'or managers' debts, and in the case of large ones, they result from investing in the complete innovation space of the product, and they are larger in scope, while in small ones it is more effective, as there is a significant reduction in costs, which enables competitiveness in the market.

According to the field of application inovations are divided into:

1. Innovations in the field of strategy - introduction innovations in the oerganizationals strategy;
2. Innovations in the field of technology - introduction innovations in the process of manufacturing;
3. Innovation in Product & servicies - introduction of new product or service or improving an existing one
4. Innovations in the structure of business - the introduction of innovations in the organizational subject which may be related to a hierarchy of authority, objectives, the structural characteristics and administartine procedures.
5. Innovation in Organizational Culture (employees) - is the change in the attitudes, beliefs, and perception of the behaviors of employees. The goal of this innovation is organizational effectivness.

Changes in one part can produce changes in in the second part of the subject. The new product can cause changes in technology, which in turn may require new qualified people, a strategy or a new organizational structure.

2.3. The role of innovation strategy

Knowing the organizational strategy is very important for innovation, because it achieves various advantages such as increased interest of the client, then easier overcoming competition, starting new forms of business, etc.

In order to develop innovative potential, the company needs to apply the appropriate strategy. The company must choose between two strategies (Bevanda, Živaljević, Bulut, 2015):

1. Leadership in Innovation - where the goal of the company is to be the first in the market and based on technological leadership, requires strong affection for creativity and risk taking ,
2. An innovation advocate - companies aim to put off the market, based on the empowerment of technology leaders, demand strong commitment to competition analysis, knowledge of reverse engineering, cost reduction.

3. MANAGING INNOVATION

Innovation is a process that takes place in stages. It begins with an idea that is new, and when an idea develops, it becomes a proposal. Innovation arises when the proposal becomes a reality and only then can one speak of innovation right. Since the idea has been formed and its realization has been completed, it is a complex process, so it is logical to expect that without a conscious management of this process, large deviations can occur which can lead to the failure of the idea. It is therefore important to know the pace and stages of innovation development. Regarding the pace of innovation, it should be emphasized that the characteristic of modern times is an increase in the number of innovations and a shortening of the time of their application in practice. "It is so, for example, until 1914 for the transfer of knowledge from discovery to production took 50 years, between 1920 and 1940 for this transfer took 16 years, after 1945 the time was shortened to 9 years, and since 1972 it is only 7 years with the tendency of further reduction (Buble, Klepić, 2009, p.92).

3.1. Defining the scope of innovation - a strategic envelope

In order to prevent economic operators from spreading innovative efforts towards uncertain innovative projects or projects that go beyond the domain and interests of the parent, it is necessary to define a strategic envelope, scope of innovation. Focusing on technology, or acquiring skills and expertise in a particular technical field, is one of the ways to determine which projects to work for. Businesses must precisely determine what kind of innovation they are looking for and what to expect. It is not necessary to create systems approach when assessing potential results and to learn from their innovative initiatives.

3.2. Managing the pace of innovation

In addition to the need to define the scope of innovation, it is also necessary to define the pace of innovation. In incremental innovative projects, business entities are quite rigorously managing the deadlines and goals, and the time required for this type of projects ranges from 6 months to 2 years. While more radical innovations are needed for more than 10 years, they begin with a long-term research period with an unknown outcome, and that rigorous deadlines and goals are unrealistic, often. Managing the pace and rhythm in the innovation process can be an important condition, a factor for achieving survival and long-term success.

3.3. Networking with innovations

We already mentioned that information, skills and knowledge are important for innovation. In practice, it is simply impossible for a business entity to have all the information within the organization and all the knowledge necessary to carry out an innovative process from the idea to its commercialization. It is therefore important to turn to networking for innovation. Networking for Innovation is establishing cooperation with partners that can help us in the realization of innovations, that is, all those who can provide us with all that knowledge and skills that we do not have, which are necessary for the success of an innovative process.

Partners in an innovative project can be:

- other employees within the unit organization,
- employed in the same economic entity, but in different organizational units,
- other economic entities.

Partners can also be from other environments such as university research centers and active regional, national and international innovation stakeholders. In the process of selecting a partner, business entities must develop specific mechanisms; in deciding on the choice of partners, the key criteria are: »the rhythm and scope of innovative initiatives, the type of expertise needed by the business entity and from which partner it can obtain, the contribution of partners in innovation, how the revenue will be shared and who will claim the intellectual property right«.

4. PHASE OF INNOVATION MANAGEMENT

A strategic approach is very important to every company that seeks to innovate in its business. A strategic approach involves certain phases, that is:

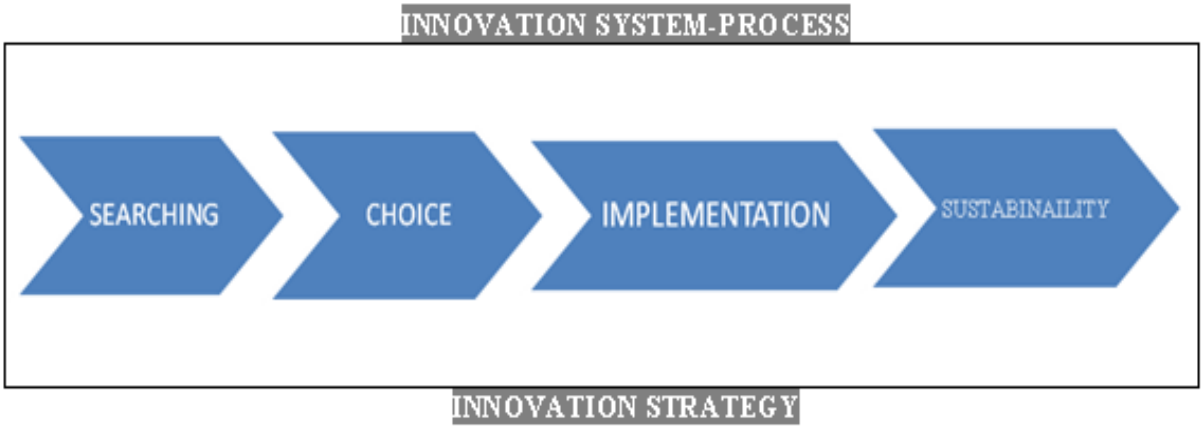


Figure 1: A strategic approach to creating an innovative company (Buntak, Drožđek i Čovran, 2015)

- The first phase - search - its main feature is to look for an opportunity to innovate something.
- The second phase - the choice - where it is determined what exactly will be done.
- The third phase - implementation - determines how something will be done and
- Fourth phase - sustainability - the stage in which an answer is sought as a constant benefit will be achieved.

These four phases constitute a strategic approach to the creation of an innovative enterprise, where both the innovation system and the innovation strategy play an important role. There are also certain stages in managing innovation. Innovations can be managed through the following phases (Buntak, Drožđek, Čovran, 2015, p.105):

- Scan and search the environment to collect and process signals about potential innovations,
- Strategically choose from a large number of potential innovations those that could achieve the greatest success,
- To provide resources, buy new technology and know how to use them,
- Implementing innovation, upgrading ideas up to the final realization,
- Considering all previous stages and analyzing success and failure in order to learn how to better manage the process and knowledge we have gained.

The stages of innovation management can also be divided in the following way (Krstić, 2012, p. 185):

- The first phase - Assessment of the current situation; The first phase is preceded by a NULL phase - called preparatory (team selection, timetable, defining results and identification of major problems) - the first phase - which is tasked with precisely and realistically determining what the current state of the company is. This stage determines the position of the company in relation to innovation management in relation to other companies, the determination of problems and recommendations to overcome this problem.
- The second phase - Defining the future situation; Some of the activities at this stage are:development of implementation and action plan, creating an image of an innovation system,drafting of rules, suggestion of improvement, etc.
- The third phase – Implementation; Phase that ends innovation management. The activities at this stage are:
  - introducing all employees with an innovation system,
  - creating an innovation leader from selected company managers,
  - support and application of technology in the innovation system,
  - inclusion in the system and the client and the supplier.

The key benefits of the implemented innovation system are:

- increased loyalty of employees, associates, partners,
- growth of motivation of employees and their performances,
- systematic finding of responses to the intentions and demands of customers,
- better utilization of own resources.
- improving the quality of products and services.

All the stages of innovation management are interconnected and dependent on each other, and the activity to be applied depends on the activity of the company, the characteristics of the company, and its possibilities on the market.

5. INFORMATION ON TRENDS IN THE FIELD OF INNOVATION

In today's world, different trends, types of trends are evidenced by many research, and one of the trends is innovation. Only the area of innovation is very susceptible to the impact of different trends that vary from country to country. Different trends are present in the countries in the region, in countries from Europe and our country.

5.1. Innovation in the Republic of Serbia

In an era of accelerated technological development, innovation activities are crucial for a stable knowledge-driven economy. Serbia understood this on time and, in 2011, launched the "Innovation Fund" to promote innovation in the fields of science and technology. The key component of the Fund is the "Innovation Support Project in Serbia", which aims to strengthen the capacity of innovation activities; the project was launched in 2011, financed by the European Union from pre-accession funds. The project encourages innovative entrepreneurship and improves innovation activity in Serbia, which is crucial for long-term economic growth. In addition to providing the necessary funds, several "training companies" were organized which brought the grant beneficiaries closer to the consultants from the Investment Fund and to foreign experts in order to discuss together the best ways for the development and commercialization of innovative products and services. Serbia has a lot of potential for innovation in all areas of life and should be oriented in that direction to improve business, announced the panel on the end of the Innovation Support Program in Serbia, which was implemented by the Innovation Fund with the support of the EU and the World Bank.

The four-year Innovation Support Program in Serbia, aimed at fostering innovative entrepreneurship in order to improve the competitiveness of the entrepreneurial sector and long-term prospects for Serbia's growth, as well as to raise awareness of technological development and innovation in the economy. One of the biggest problems encountered by the economy in Serbia, Companies wanting to innovate are primarily financial constraints, human resource constraints in terms of availability to quality researchers. Modern business conditions are characterized by strong competition, so it is increasingly difficult to get revenue, while costs are getting bigger. Bank loans are expensive for micro small and medium enterprises in Serbia because they generally have small capital and profit, which they can not provide assistance from the bank.

5.2. Indicators of innovative activities 2014-2016 in the Republic of Serbia

The data shown in the release number 197 of 20.07.2017. The Republic Institute for Statistics, represent the result of the research on innovative activities in business entities in the period 2014-2016. years. The survey was conducted on a sample of 3,587 business subjects. In the research, innovative business entities are defined as business entities that in the observed period introduced the innovation of products or processes, innovation in the organization or marketing. The results of the survey showed that the participation of business entities with at least one of the mentioned types of innovations is 41.2%. The key factor for the innovative activities of a particular business entity is the size of that entity. Two of the three big business entities are innovative, slightly more than half of medium-sized businesses, while small business entities are slightly more than 38%. Innovative activities are more prominent among business entities engaged in production, where almost half of the subjects were introduced, while less than 40% of business entities introduced innovation in service activities (http://www.stat.gov.rs/sr-Latn/oblasti/nauka-tehnologija-i-inovacije/inovacije*30.11.2018).*

Table1: Business subjects towards innovation, activity and size (Republic Institute of Statistics, Republic of Serbia, 2017)

	In total	Inovators	Businesses that did not innovate	Participation innovators (%)
In total	**16957**	**6994**	**9963**	**41,2**
Small business subjects	14174	5417	8757	38,2
Medium business subjects	2257	1228	1030	54,4
Big business subejcts	526	349	177	66,3
Production business subjects	4723	2232	2492	47,3
Service business subjects	12233	4762	7472	38,9

Regarding regional representation, product / service innovation has the largest share and are equally represented in regions, so more than a quarter of business entities introduced a new product or service. Regional representation of innovations in organization and marketing ranges from 20.9% to 25%, while process innovations represent from 17.4% to 25%.

- Business subjects by type of innovation and business sectors; The participation of business entities of innovators in organization and marketing amounts to 30.2% and is less than the innovator of products and processes, where every third business entity is an innovator. These two innovation groups mostly occur simultaneously in business entities. Representation of business entities, who simultaneously introduced innovation of products and processes and innovations in organization and marketing, accounted for 22.4%. The largest representation of business entities of innovators is in the processing industry and in professional, scientific, technical and innovation activities.

- Share in total revenue from product / service innovation; In the income structure of the business entities of the innovators, the share of income from sales of unchanged or negligible slightly changed products is dominant, accounting for 32%. The share of the sales of products / services that are new to the business entity and the participation in the sale of products / services that are new to the market totals around 15%. Financial assistance from state instances (financial support in the form of tax credits, grants, subsidized loans or loan guarantees) received 12.5% of business entities - innovators.

- The market of selling products or services; The most numerous are business entities selling products / services on the local-regional market, followed by those who sell on the national market. The share of innovators in relation to non-innovators on the EU market, EFTA is twice as high, while in the markets of other countries it is slightly higher.

- Expenses for innovative activities; Expenses for innovative activities include investments in the development of new products, investments in the introduction of a new product on the market, funds aimed at significantly improving existing products, services or processes, as well as funds for innovation projects that have not yet been completed. Expenses for innovative activities include current expenditures (salaries, equipment, materials, services, etc.), as well as investment expenditures. The share of costs for the procurement of machinery, equipment and software is over 71% and represents the largest share of total expenditures for innovative activities of business entities.

- Significance of factors that were an obstacle to innovation activities; For most business entities, which are not innovators, 77% of them had no reason for innovative activities, while 23% needed them, but did not innovate because of too many obstacles. As the biggest obstacles to innovative activities, business entities assessed the lack of their own financial resources for innovation and too high innovation costs http://www.stat.gov.rs/sr-Latn/oblasti/nauka-tehnologija-iinovacije/inovacije)

Table2: Significance of factors that were an obstacle to innovation activities (Republic Institute of Statistics, Republic of Serbia, Press Release, 2017).

Factors	Importance			
	High	Middle	Small	Inappreciable
Lack of financial resources for innovation	14,6	4,4	2,9	78,1
Lack of credit lines and private capital for innovation	8,0	7,6	4,0	80,3
Prohibitive costs of innovatio	12,6	5,4	3,4	78,5
Lack of qualified personnel in a business entity	5,3	7,4	5,3	81,9
Lack of partners for cooperation	5,5	7,2	5,5	81,9
Difficulty for obtaining government grants and subsidies for innovation	9,5	4,6	5,3	80,5
Uncertain demand in the market for your innovative ideas	6,7	6,8	5,0	81,6
Too much competition in your market	7,0	6,8	5,0	81,3
Legislation / regulations are burdensome	7,1	6,7	5,5	80,8
Legislation / regulations that create uncertainty	7,6	6,6	4,7	81,1
Legislation / Regulations not consistent across the EU	5,0	5,1	6,0	83,9

6. INNOVATION IN COUNTRIES IN THE REGION AND IN EUROPE

In countries in an environment such as Croatia, Slovenia can be said to be an emphasis on the innovation of small and medium enterprises. In Slovenia, small and medium-sized enterprises introduce innovations in order to maintain the level of competitiveness or to raise the existing level even further. In Slovenia, innovation is mostly represented in products, while innovation in services has a much smaller share. When it comes to innovations, special progress in the Republic of Croatia occurred after 2003 when it began with certain research in this area. Earlier, it was considered that innovation was an essential part of the company's business, but it was much less. In today's business environment, company owners, together with employees, are becoming more aware that innovation is a turning point that is essential to survive on the market, but innovations are seen as a milestone for growth and enterprise development. In the Republic of Croatia, "a new or significantly improved product or service was introduced by 13.9% of enterprises, while 15.9% of the enterprises introduced the process innovation. Innovative companies that have parallel product innovation and process innovation are more characteristic of manufacturing companies than for service companies. Large enterprises often have 14 parallel product innovation and process innovation (40.6%) than medium, large (17.0%) or small enterprises (7.6%) (Institute of Statistics, Republic of Croatia, 2014, p.1.). Innovation activities include all scientific, technological, organizational, financial and commercial steps that aim to lead to the introduction of innovation. Procurement of plant, equipment, software and buildings is the most common form of innovation activities for most product and process innovators (80.8%), which are equally implemented by production and service companies. Manufacturing companies are more inclined to their own research and development activities and design activities, while service companies are more inclined to acquire different forms of knowledge on the market such as know-how, copyrighted works, patented and non-patented inventions of another type knowledge. Management has to constantly listen to market pulses, first of all thinking of innovation demands (Figar, 2007). One of the biggest obstacles to the market realization of innovation is the lack of money, although innovators are skilled and it will be able to overcome if they know where they can find the means for their promotion. Cyprus has the highest level of innovation, while Spain has a level of innovation. New products are quickly introduced by Cyprus, England and Italy. While Spain, Lithuania and Greece are among the countries that introduce new products the slowest.

7. CONCLUSION

On the basis of everything exposed, it can be pointed that innovation appears as a necessity of today. Large oranges to survive in a turbulent bubble must constantly innovate their products, processes and services, in the knowledge of their employees. Innovation can be interpreted as a process in which product improvement is necessary to achieve an increase in the production of the same product. In this process, the creation of completely new production methods, as well as purchasing and distribution, there are changes in the management, but also in the working conditions of the employees. In order for the entire process to be successfully carried out, it is necessary to base all of its efforts on mutual cooperation. Today, companies apply different types of innovations. Regardless of the type of innovation applied, it must be the key to growth and development of the company, but at the same time it will be the power that will drive the economy of any country in the world. Since competition is growing, both in the domestic and foreign markets of the company have recognized the importance of applying different types of innovations. Innovations have an important knowledge of the organizational strategy, because in this way different advantages are achieved, such as the increase in client interaction, easier competition, starting new forms of business, and more. In order to create innovation potential in companies, it is necessary to apply the appropriate strategy. The realization of innovations must be carried out in a very organized manner, and with the constant

supervision of the management in charge of innovation. He must control the process, evaluate, correct the mistakes he finds himself on the road. All organizations today should strive for an innovative organization, which is flexible, creative, provides the opportunity to participate in decision-making and the opportunity for individuals to prove themselves in organizations. Every organization in modern conditions must be an organization that learns this continuously, and which has special mechanisms and tools for applying its knowledge in business. In today's business environment, company owners, together with employees, are becoming more and more aware that innovation is a turning point that is essential for the market to survive, but innovations are seen as a turning point for the growth and development of the company. Firms that do not innovate, quickly decay or disappear from the market. Even small companies must do their best to avoid being deleted by big giants. The strategies it will apply will depend on the size of the organization, their activities, the goals of business, mission, vision. There is a wide range of strategies, but the essence is to adapt to current developments in the environment, as only companies that succeed in it can expect a positive result in the long run.

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MICROFINANCE AND MATERNAL HEALTH

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ABSTRACT

One of the millennium development goal i.e. Improve maternal health is chosen to examine the impact of microfinance in the presence of political stability as a moderating variable. Microfinance is measured with respect to three monetary dimensions and two non monetary dimensions. To investigate impact of growth in microfinance, microfinance index is developed by using principle component analysis and then panel regression models i.e. fixed effect and random effect models are applied. Data of 41 countries from 2000 to 2012 is analyzed to investigate impact of microfinance on maternal health. The research concluded that with growth in microfinance maternal health improves. The study will be helpful for policy makers to design strategies to achieve millennium development goals.

Keywords: *Microfinance, Maternal Health, Millennium Development Goals*

1. INTRODUCTION

Microfinance is lending small loans to poor. In microfinance usually the amount of loan lent is less and the transaction cost of small loan is not that much different from the transaction cost of large loan. High interest rates are justified due to high transaction costs incurred by MFIs. Also both loans require almost same monitoring time and paper work to process the loans. So cost of lending smaller amount is higher as compared to lending larger amount. Mallick (2012) found another weakness of lending small amounts as it will force the borrowers to borrow from money lenders as well, to fulfill their working capital requirements which will give an opportunity to Money lenders to charge high interest rates from these clients. Microfinance Banks also face greater default risk (Dowla, 2012) on loans as compared to commercial banks which also adds up to the total cost incurred by MFIs. Schreiner (2001) argues that large size of loan affect lenders. On one hand it represents the maximum possible loss due to default. Also larger loans have larger variable costs because of extra care taken by lenders due to greater risk exposure. Furthermore in case of large size of loan, microfinance clients may use the loan in non-constructing activities. Mostly microfinance institutions charged high interest rates from the borrowers as compared to commercial banks. To maintain their position they argued that poor need loan, not cheap loan so the offering of loan is considered as sufficient for the poor. On the way to further support their stance they argued that the risk of default on loans, in micro financial institutions is more as compared to commercial banks because commercial banks use monetary collateral whereas as most of microfinance institutions rely on social collaterals. As a result the poor are charged with high interest rates whereas rich are charged with low interest rates, which have weakened the fundamental objective of microfinance institutions. Charging poor with higher interest rates have created a situation of social injustice and inequality in a society (Sama, 2013). This may be more relevant for developing and emerging economies where most of the population is poor and socially bonded. For them the social collateral may also be of very much importance and this fact may lead to less default risk. So it is unjust to charge high interest rates from the poor having less default risk. In the presence of this trend it may not be possible to achieve millennium development goals as set by United Nations.

In addition to that the unstable political situation of the country may also be a hindrance to achieve these goals. Although we found wide literature in the field of microfinance for different regions of the world including Bangladesh (Kabeer, Mahmud, & Castro, 2012), India (Imai, Arun, & Annim, 2010), Nepal (Bhatta, 2001), Latin America (Goldmark, 2001), Bolivia (Maldonado & Lez-Vega, 2008), Bosnia and Herzegovina (Hartarska & Nadolnyak, 2008) but it is difficult to find a study in which microfinance is studied with respect to developing and emerging economies as a whole. As context always matter, accordingly the political state in one country may be different from that of the other country. As the study will cover numerous microfinance institutions from several countries in different regions of the world including Africa, East Asia & Pacific, Eastern Europe and Central Asia, Latin America & Caribean, Middle East & North Africa and South Asia which also include countries like China, India, Bangladesh, Pakistan, Brazil, Mexico etc representing a greater proportion of the world population so in veracity the study covers whole of the world.

2. LITERATURE REVIEW

Millennium Development Goals set by United Nations have stimulated the development community to work hard for the improvement of the needy people. Different NGO's and donor agencies are positioning themselves to attain the MDGs by reducing poverty, empower women, to get rid of different infectious diseases, to improve maternal health, to reduce infant's mortality rates and to educate children. All of these objectives cannot be gained without any financial help. Consequently microfinance is used for this purpose. The impact of microfinance is not just limited to business loans but poor household also used microfinance for their health, education, as well as to encounter some household emergencies (Zeller & Sharma, 2000 ; Marincionia, Appiotti, Pusceddu, & Byrne, 2013). Access to microfinance also improves food supply (Kendo, 2013), which translates into better health but literature (Hennink & McFarland, 2013 ; Kar, 2013a ; MacGarty, 2013) is divided on the issue that microfinance has achieved millennium development goals, especially commercially oriented microfinance institutions. Usually poor people and especially women are prone to infectious, long lasting and communicable diseases in developing countries (Geissler and Leatherman, 2015). This risk increases when a woman undergoes maternity because of unclean and corroded equipment used in operating a delivery. The unskilled midwives further increase the risk to infant and maternal health. Although microfinance is not designed to improve maternal health but economic as well as social poverty go side by side and should be handled at the same time (Mohindra and Haddad, 2005). A bidirectional relationship between poverty and ill health is found in the literature (Marmot, Friel, Bell, Houweling, & Taylor, 2008). It is argued that ill health causes additional impoverishment which affects the potential of people to improve their economic status. Some researchers (Leatherman & Dunford, 2010) also term poor health as a dimension of poverty so growth in microfinance can be interconnected to socioeconomic growth. Besides that, microfinance borrowers are not the only beneficiary because when any of his/her family members become ill he/she can use the money to bring them to the hospital. Similarly his productivity is not only influenced by his own illness but also the illness of one of his family members. So it is expected that growth in microfinance will lead to improvement in maternal health. Political instability (e.g. politically motivated violence, probability that the government will be overthrown or destabilized by unconstitutional means and awful law and order situation) have received less treatment in the literature in perspective of financial stability and microfinance. Although (Svensson, 1998) showed that high degree of political instability will deter economic growth and investment to a large extent. But (Le, 2004) argued that political instability characterized with violent protests may hamper financial stability but if the protests are non-violent then it will not slow down economic growth.

The case of political stability may be more relevant in case of developing countries as several developing countries have experienced internal conflicts in the near past.

3. DATA & METHODOLOGY

At the end of year 2014, Microfinance Information Exchange covered approximately 2,000 microfinance institutions around the world. Microfinance Information Exchange is an institution with head office in Washington DC and regional offices in India, Peru, and Azerbaijan. According to Microfinance Information Exchange at the end of year 2011, gross loan portfolio of these microfinance institutions were equivalent to eighty seven billion US dollars with Ninety five million active borrowers. Total deposits were equivalent to 66 Billion US dollars and total depositors were 78 million. Data related to microfinance is downloaded from Market Mix database. Data concerning political stability is obtained from World Bank's worldwide Governance Indicators (WGI) project. Data to quantify change in maternal health is obtained from World Bank. The effect of growth in microfinance is measured with respect to five dimensions. Change in Number of active borrowers, Change in Gross Loan Portfolio, Change in Total Assets, Change in Personnel and Change in Equity are used as proxy for growth in microfinance. Effect of each variable as well as their aggregate index is used in the analysis. Principal component analysis (PCA) is used to amass individual microfinance growth measures into single microfinance growth index. Political stability index is obtained from World Bank's worldwide Governance Indicators (WGI) project. Adolescent fertility rate (births per 1,000 women ages 15-19) is taken as proxy for deterioration in maternal health. Then microfinance index is computed which is used as an aggregate measure of microfinance, using above said dimensions of microfinance by means of principles component analysis. Afterwards a change with respect to previous year for each dimension is calculated i.e. change in number of active borrowers of MFIs, change in gross loan portfolio of MFIs, change in total assets of MFIs, change in personnel of MFIs and change in equity of MFIs. Similarly a change in microfinance is calculated by subtracting previous year figure from current year figure. By using this methodology one figure for each variable for every country per year is obtained. Six interaction terms cnabXcps, cglpXcps, ctaXcps, cpnlXcps, ceqtXcps and micXcps are created by multiplying change in political stability with each of five dimensions of microfinance and microfinance index. Six separate regressions are run to inspect the moderating role of change in political stability in the relationship between each dimension of microfinance, microfinance index and millennium development goals. After applying regression it is found to be a challenging task to interpret interaction term manually. So we follow Aiken and West's methodology and graph the interaction terms. Microfinance index and its five dimensions are separately trichotomizes with change in political stability to get high, medium and low categories for each variable i.e. for each independent variable and moderating variable. These categories cross each other to provide nine cell means. Mod Graph as suggested by (Victoria School of Willington School of psychology) is used for the analysis. One standard deviation above the mean is considered as "high" category, mean is taken to be the "medium" category and "low" is computed as one standard deviation below the mean. Mod graphs for some of the regressions are given in the analysis. Data of 41 countries from 2000 to 2012 is analyzed. A change is calculated with respect to previous year for all the variables. Lag is taken because of the reason that effect of growth in microfinance on maternal health is more visible in the forthcoming year rather than in the current year. Improvement in maternal health is negatively related to its proxy i.e. adolescent fertility rate (births per 1,000 women ages 15-19). Practice of centering of independent and moderating variables and generation of high, medium and low categories is used for examining the moderation effect of change in political stability in the relationship between microfinance, its dimensions and millennium development goals.

Fixed effect and Random effect models are applied in the analysis to investigate the relationship. Before applying regression data is checked for stationary.

4. RESULTS & ANALYSIS

When graphs of change in maternal ill health are investigated, it is observed that in nearly all of the countries, first there is a constant change and then an abrupt decrease is witnessed. It means that maternal health is improved in the recent past in most of the developing countries. To deeply investigate the state of affairs combined graph is also given in Figure 1, from figure it is seen that practically all the countries behaves in the same way i.e. first a constant change in maternal ill health is viewed and then decline in maternal ill health is beheld. But the degree of decline is not found to be same for all countries. Line graph of some countries is found to be much steeper as compared to the others. It implied that in some countries maternal health is much more improved as compared to others. To examine the effect of microfinance and its dimensions on maternal health and to investigate the moderating role of political stability in the relationship between microfinance and maternal health, random and fixed panel regressions are applied. As our proxy for maternal health is inversely proportional to improvement in maternal health so increase in value of the proxy is considered as deterioration in maternal health whereas decrease in value of proxy is considered as improvement in health. Results of six separate panel regressions are reported in Table 1 and Table 2. From regression results it is noticed that growth in microfinance and its dimension measured in monetary terms are playing their role in improvement of maternal health. Non-monetary dimensions of microfinance are not found to have significant impact on improvement of maternal health. It is recognized that growth in political stability is positively affecting improvement in maternal health. In other words a politically stable country will give more attention to tackle with the problem of maternal ill health. Coefficients for growth in political stability in six separate random effect models are found to be -7.261, -8.274, -8.120, -8.326, -8.251 and -7.834 when regressed on maternal ill health along with microfinance index, change in number of active borrowers, change in gross loan portfolio, change in total assets, change in personnel and change in equity with z-value of -2.380, -2.740,-2.600, -2.730, -2.740 and -2.540 respectively. Similarly coefficients for growth in political stability in six separate fixed effect models are found to be -7.826, -9.167, -9.363, -9.354, -9.127 and -8.872 when regressed on maternal ill health along with microfinance index, change in number of active borrowers, change in gross loan portfolio, change in total assets, change in personnel and change in equity with t-value of -2.310, -2.750, -2.750, -2.780, -2.740 and -2.550 respectively. All of random effect models are found to be significant at 1% level of significance whereas not all of fixed effect models are found to be significant at 1% level. A negative relationship between growth in microfinance and maternal ill health is spotted. It means that growth in microfinance will improve maternal health in developing countries. It is observed that one unit increase in growth of microfinance will decrease maternal ill health by 1.988 units which is statistically significant at 5% level with a p-value of 0.017. Furthermore growth in gross loan portfolios of MFIs and change in equity of MFIs are found to be statistically significant at 5% confidence interval whereas change in total assets of MFIs is found to be statistically significant at 10% level of significance. All are negatively related to maternal ill health. It is found that growth in political stability will moderate the relationship between change in total assets of MFIs and maternal ill health. From figure slopes of the three lines are found to be almost same. All of the lines have near to zero slopes. It is due to the fact that coefficient of change in total assets although significant is near to zero. It is also noted that line captioned “low” is on the top of the graph and line captioned “high” is on bottom of the graph. This further strengthens the argument that in high political stability there will be high improvement in maternal health whereas in low political stability there will be lower improvement in maternal health.

Figure 1: Combined graph for maternal ill-health in different countries with respect to years

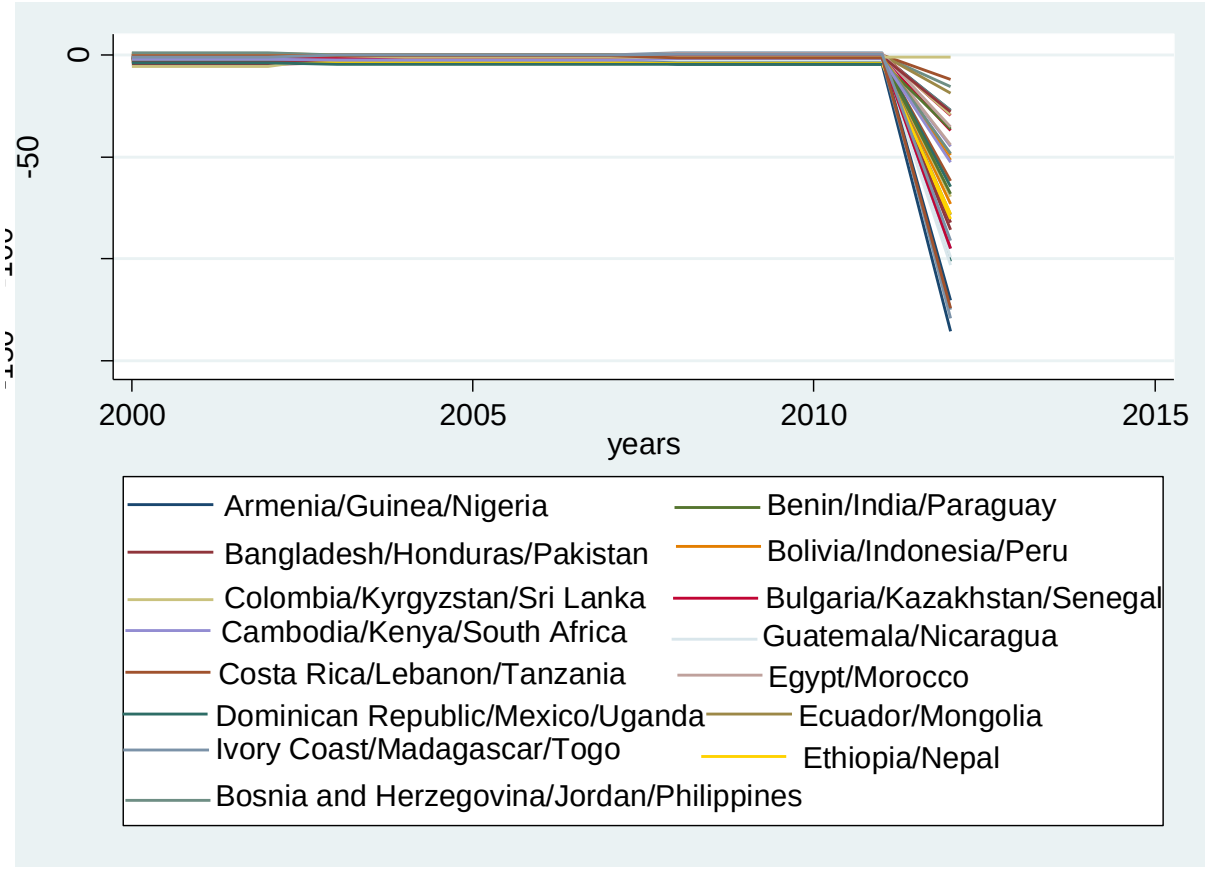


Figure 2: Country wise graph of maternal Ill-health with respect to years

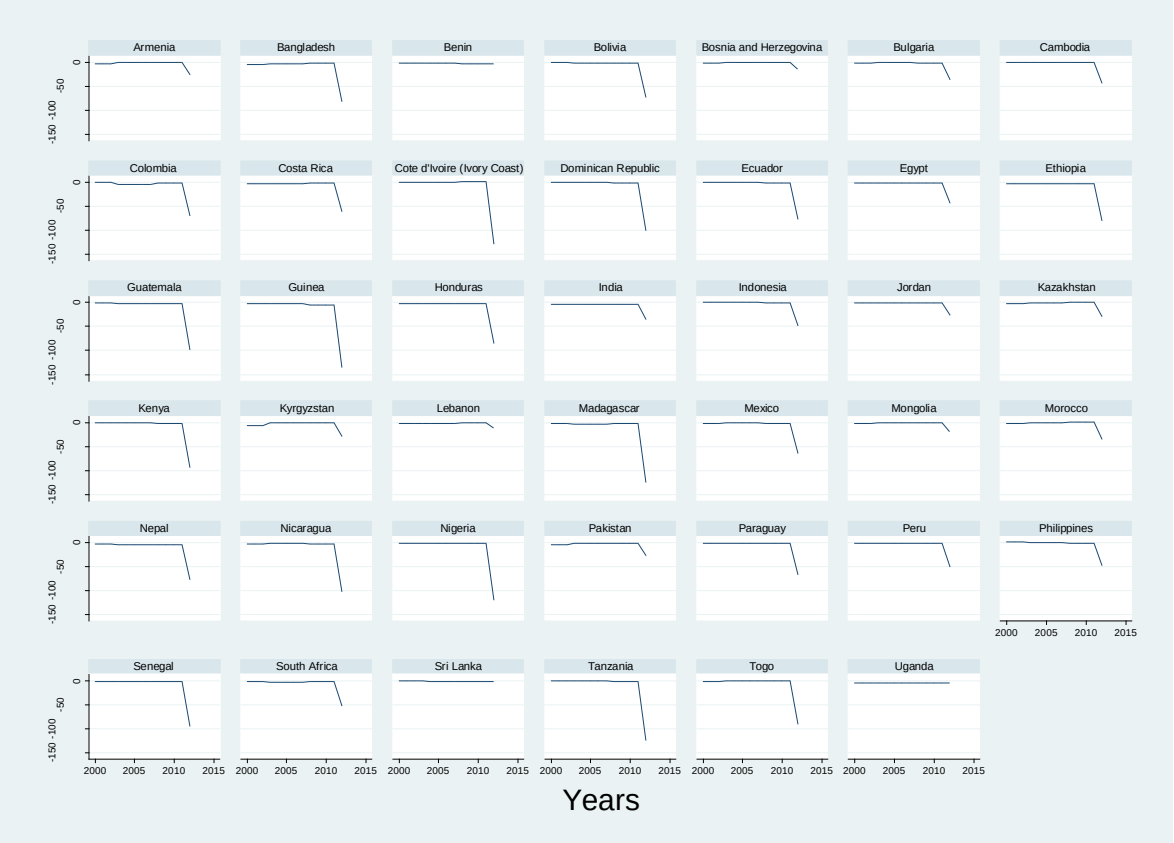


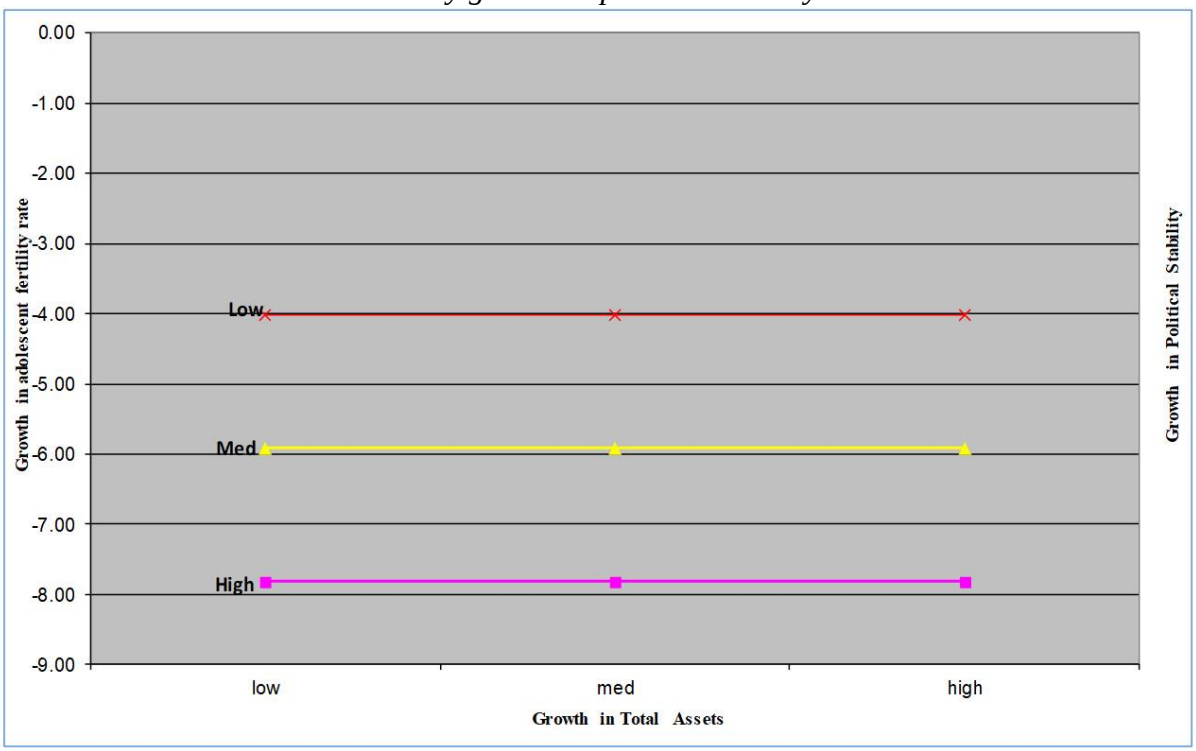
Table 1: Change in Adolescent fertility rate (births per 1,000 women ages 15-19) (CGOAL51), Microfinance Index (Mic), Change in political stability of a country (CPS), Interaction term between Microfinance Index and change in political stability of a country (MicXcPS), Constant term (Const), Change in number of active borrowers of MFI (CNAB), Interaction term between Change in number of active borrowers of MFI and change in political stability of a country (CnabXcPS), Change in Gross Loan Portfolio of MFI (CGLP), Interaction term between Change in Gross Loan Portfolio of MFI and change in political stability of a country (CglpXcPS).

	Random							Fixed						
Variables	Coeff	Robust Std-Error	Z-Value	P-Value	Sig	Chi²	P-Value	Coeff	Robust Std-Error	t-Value	P-Value	Sig	F-Stat	P-Value
cgoal51						15.840	0.001						5.400	0.003
Mic	-1.988	0.833	-2.390	0.017	5%	**		-2.093	0.849	-2.460	0.018	5%	**	
CPS	-7.261	3.051	-2.380	0.017	5%	**		-7.826	3.391	-2.310	0.026	5%	**	
MicXcPS	-2.771	4.682	-0.590	0.554				-3.416	4.852	-0.700	0.485			
Const	-6.083	0.522	-11.660	0.000	1%	***		-6.069	0.110	-55.190	0.000	1%	***	
cgoal51						41.500	0.000						31.040	0.000
CNAB	0.000	0.000	0.950	0.340				0.000	0.000	1.170	0.250			
CPS	-8.274	3.016	-2.740	0.006	1%	***		-9.167	3.339	-2.750	0.009	1%	***	
CnabXcPS	0.000	0.000	-0.450	0.651				0.000	0.000	-0.560	0.580			
Const	-6.145	0.496	-12.380	0.000	1%	***		-6.146	0.008	-795.610	0.000	1%	***	
cgoal51						13.510	0.004						5.790	0.002
CGLP	0.000	0.000	-2.300	0.021	5%	**		0.000	0.000	-2.890	0.006	1%	***	
CPS	-8.120	3.125	-2.600	0.009	1%	***		-9.363	3.409	-2.750	0.009	1%	***	
CglpXcPS	0.000	0.000	-1.480	0.140				0.000	0.000	-1.900	0.064	10%	*	
Const	-6.035	0.564	-10.690	0.000	1%	***		-5.997	0.077	-77.860	0.000	1%	***	

Table 2: Change in Adolescent fertility rate (births per 1,000 women ages 15-19) (CGOAL51), Change in Total Assets of MFI (CTA), Change in political stability of a country (CPS), Interaction term between change in Total Assets of MFI and change in political stability of a country (MicXcPS), Constant term(Const), Change in Personnel working in MFI (CPNL), Interaction term between Change in Personnel working in MFI and change in political stability of a country (CpnlXcPS), Change in Equity of MFI (CEQT), Interaction term between Change in Equity of MFI and change in political stability of a country (CeqtXcPS).

	Random							Fixed						
Variables	Coeff	Robust Std-Error	Z-Value	P-Value	Sig	Chi²	P-Value	Coeff	Robust Std-Error	t-Value	P-Value	Sig	F-Stat	P-Value
cgoal51						18.280	0.000						5.980	0.002
CTA	0.000	0.000	-1.960	0.050	10%	*		0.000	0.000	-2.190	0.035	5%	**	
CPS	-8.326	3.054	-2.730	0.006	1%	***		-9.354	3.368	-2.780	0.008	1%	***	
CtaXcPS	0.000	0.000	-1.800	0.073	10%	*		0.000	0.000	-2.100	0.042	5%	**	
Const	-6.045	0.545	-11.100	0.000	1%	***		-6.023	0.058	-104.530	0.000	1%	***	
cgoal51						11.690	0.009						2.710	0.058
CPNL	0.000	0.000	1.050	0.295				0.000	0.000	0.830	0.412			
CPS	-8.251	3.006	-2.740	0.006	1%	***		-9.127	3.328	-2.740	0.009	1%	***	
CpnlXcps	0.000	0.000	1.140	0.252				0.000	0.000	0.780	0.438			
Const	-6.154	0.494	-12.450	0.000	1%	***		-6.152	0.012	-493.500	0.000	1%	***	
cgoal51						11.760	0.008						3.260	0.031
CEQT	0.000	0.000	-1.990	0.047	5%	**		0.000	0.000	-1.850	0.072	10%	*	
CPS	-7.934	3.123	-2.540	0.011	5%	**		-8.872	3.475	-2.550	0.015	5%	**	
CeqtXcps	0.000	0.000	-0.750	0.456				0.000	0.000	-0.810	0.420			
Const	-6.094	0.532	-11.460	0.000	1%	***		-6.084	0.073	-83.470	0.000	1%	***	

Figure 3: Moderation of the effect of growth in total assets on growth in adolescent fertility rate by growth in political stability



5. CONCLUSION

The study concludes a positive role of microfinance in the improvement of maternal health. It is also identified that those countries which are politically stable have more control on issues related to maternal health. Similarly growth in microfinance has also improved state of maternal health in developing countries. Increase in gross loan portfolio of microfinance institutions has played a vital role in improvement of maternal health. It seems that borrowers are well aware of the fact that without good health they may not be able to earn their livelihood that's why they use the money for improvement of their health. Similarly in most of developing countries an increase in awareness regarding population growth is witnessed and people are adopting different methods to control size of their family which provide assistance in maternal health. Likewise it is originated that if more assets are acquired by microfinance institutions then more borrowers will be facilitated and hence improvement in maternal health is observed.

Policy makers can make use of microfinance as a tool to achieve their objective of improving maternal health through microfinance.

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MACROECONOMIC ANALYSIS AND EVALUATION OF THE TRANSITION TO THE SUSTAINABLE DEVELOPMENT STRATEGY OF AZERBAIJAN

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ABSTRACT

Taking into consideration the world experience of economic development, global, national and regional characteristics, transition problem of the sustainable economic development of Azerbaijan, the country`s development level, existing balance of resources and its utilization, farwarding movement of opportunities in the near perspectives, as well as the obtained results in all the sectors and directions of the national economy of Azerbaijan, the created economic, scientific-technical, financial potentiality, human capital, institutional, basing on the normative-legal and legislative bases of its theoretical and methodological and practically realizing problemes are researched in the aricle. Challenges of sustainable development strategy and its practical implementation: The systematic SWOT analysis of the development of the national economy, its strong and weak sides, capacities, negative-global pressures, threat identification, evaluation tasks are revealed in a logical consistency on the basis of 360-degree diagnostics. For the realization of the sustainable development concept mechanism of Azerbaijan, the implementation of innovation-oriented investment policy, creating a strong economic and market infrastructure meeting international standards, forming a national innovation system, sharpening the share of intellectual capital in (GDP) gross domestic product, implementation of appropriate inevitable institutional changes requiring the condition and demand of market in a global world, determination of the amount of transfers from the oil funds to the budget according to the "golden rule" principles, the optimal ratio application of sustainable fiscal and effective monetary policy with the process of socio-economic regulation, vast utilization of targeted programs in the major fields and directions of the national economy and in a whole it is necessary to deepen the reforms from the sustainable development point of view. The concrete suggestions and recommendations are put forward at the end of the article in accordance with the improvement process of sustainable development transition of the country in the near future.

Keywords: *sustainable economy, sustainability potential, safety conseption, competitievenes, human capital*

1. INTRODUCTION

The achieved success, created economic, social, scientific-technical, financial potential, human capital, infrastructure, the improvement level of social welfare of the population of Azerbaijan in socio-economic development level, as well as the the normative-legal legislation and institutional base set it as an issue in transition to the sustainable development as a constructive challenge in the last decade. At the same time, the global financial crisis and the declining fall in crude oil prices in the world market over the past two years, the devaluation of manat, the role and capabilities of oil factor,restriction of revenues in the development of national economies, and the decline of GDP with our trade partner countries have resulted in the balance of payments and budget shortage of non-oil sector of our country. The development of the intangible incitement strategy of the government in our country, which has been applying for a long-term perspective by deforming the economic development factors, criteria, the driving forces, principles and mechanisms of realization of economic growth, has an objective necessity.

2. THE CONCEPTUAL APPROACH OF THE IMPORTANCE, PRINCIPLES AND CRITERIA OF THE TRANSITION OF SUSTAINABLE DEVELOPMENT STRATEGY

Macroeconomic analysis and evaluation of the transition to the sustainable development strategy of Azerbaijan requires the SWOT analysis and 360 degree of diagnosis of the exsisting condition of socio-economic development of our country, as well as the analysis of the balance of resources available for our country, evaluation of the extent of their use and potential action in the current environment; identification of key factors of the development of the national economy, targets, determination of priorities, the regulation of the the exsisting forms of socio-economic process, methods, pinciples, provision of economic means and efficient realisation of social, ecological and istitutional development, stable fiscal and conseptual basis of effective monetary policy. Based on the above mentioned issues, the main directions of the strategic road map for the "National economy and main sectors of economy" were adopted on March 16, 2016 in our country (Azerbaijan Newspaper, 2016). The harmony of economic and social development, the unity of benefits and interests of present and future generations, as well as increasing the inclusiveness of the economy have been proposed as a strategic task for the first time in this roadmap. Considering the strengths, weaknesses, opportunities, possible jeopardies and threats of economic development on the basis of SWOT analysis, the competitive advantage of our country, in general, the philosophy, paradigm of economic development has been determined for the near future. This concept emphasizes that Azerbaijan is already in the post-oil phase of 2015, in order to form a complex, systematic, dynamic, logical economic reforms for the formation of post-oil economy in our country, the concept of reforms should be implemented in accordance with the main directions, goals and targets covering all fields of the national economy. In general, they are: investment-innovation; improvement of entrepreneurship environment; promotion of investment; implementation of structural and institutional reforms; increasing the competitiveness of the national economy; stimulation of the development of non-oil sector and export; government support for the development of income-generating labor areas and industries; improvement of salaries, pensions and benefits; promoting "Made in Azerbaijan" brand; etc. can be grouped on the directions. At the same time, the expectation of the national security of economy was defined as a condition of the formation and implementation of the economic reform strategy in our country. The strategic goals and targets facing the transition to a sustainable development model of our country require the proper adaptation of the structure of the national economy for changing conditions and the demand of the optimal balance between the real and financial sectors in the near future,. The analysis shows that in the near future the character of the economic development of our country will be: the movement of global economic power centers to newly emerging markets in Asia; significant impacts of technological innovations; the alteration of geopolitical configuration, the gradual decline in the impact of the oil and gas factor will significantly increase the opportunities of the non-oil sector. Analysis reveals that over the past decade, a substantial share of capital investment in the country's economy has been directed to the global oil and gas resources market. The creation and enhancement of logistics opportunities for the necessary socio-economic and social development infrastructure for t entrepreneurship with their main source financed by state budget and the transfers from the Oil Fund directed to the growth of the economy. In our opinion, the development should be considered as one of the most characteristic aspects of the improvement of sustainable development strategy of Azerbaijan. It will distinctivly increase possible cataclysms against the sustainable and dynamic development of the national economy and the overall negative impact of geo-economy and instability in the near future. In general, from 1993 to 2018, the volume of capital investments in our country was much more than $ 250 billion due to all financial sources. (Statistical Indicators of Azerbaijan, 2018) In the recent years, the International Monetary Fund(IMF) forcasts an annual

2-3% of growth of Azerbaijan economy by 2025, evaluating the potential and capacities of the country in all fields. Today, in fact Azerbaijan economy is in the transition period from quantitative changes to qualitative changes. Even though, the country where the economic growth is provided by resource factors, their provision opportunities with increased recycling production is limited, but the human capital, of course, is the only permanent and inexhaustible source. The provision opportunity and self development potential and competitiveness of the national economy in Azerbaijan reveals that the oil capital will decisively depend on the human capital in near perspectives. The analysis shows that, the following aspects must be taken into consideration: the world experience and national reality which are intended to implement and trying to characterize the perspective model of development aimed at ensuring sustainable development in our country in modern condition; expected optimum relatives of key and progress factors in economic growth, provision of national security, competitiveness of national economy, selection of correct priorities, in estimation of economic growth efficiency from the recycling point of view, forwarding the plan of social efficiency and effective utilization. However, P. Solow rightly points out that three key issues must be in focus while determining the economic policy. Firstly, the community should focus on the collection of less or more part of national income. Secondly, it must be determined how the economic policy can affect to the collection process and thirdly, it must be clarified how the change in economic policy can affect technical progress. M.Todaro pointed out that " Development is a very multi-planned process, fundamental changes, people's behavior, social institutions, social structure accelerates economic growth, reduces unemployment and facilitates inequality in the society" (Todaro, 1997). As a matter of fact, the concept without the provision of competitiveness on the international scale, transition to the real sustainable development conception is impossible. M. Porter rightly points out that there is a significant impact on the competitiveness of the country's economy, along with known classical factors of economic development, based on the national conditions, in particular the national economy, the national culture, the mentality of public administration officials, even the history of the country etc (Porter, 1993). Of course, as P. Solow pointed out that, the expected sustainability rate between the existing capacities and the natural resources is a prerequisite for the development of sustainable development programs. Serious problems arising in provision of nature-society and harmony of human relations have been turned into an objective necessity for their sustainable development and revaluation in modern condition. Generally, from the 70s of the 20th century, new approaches to sustainable development have emerged in the concept of economic growth. Setting the conception of sustainable development as a practical issue in the international arena, takes its beginning from the report "Limits of Growth" prepared by The Club of Rome in 1971. It was particularly noted in the report that the use of natural, especially energy resources, with increasing scale and extravagance, greatly damages the environment, makes it useless, and in the long term doubts the possibility of normal living beings on the earth in the future. For the solution of this problem, the restriction of the extensive economic growth justifies the intensive development transition by observing the ecological balance. Taking into account the relevance and practical importance of the principles of the present report, an international conference on sustainable development was held in Stockholm in 1972. Consideration of the problem of resource constraints in this conference, was put forward as a call to humanity on the earth. Later, the fundamental principles, ways, mechanisms, priorities of sustainable development concept were identified at the international conferences held in 1992, 2002 and 2012. In 1972, Nobel Prize laureates Y. Nordhaus and J. Tobin's "Is Growth obsolete?" research has also been proposed the model for the estimation of economic sustainability for the first time (Nordhaus, 1972). But in 1974, Robert Solou developed the conditions for sustainable development of economy for the first time. He pointed out that, the necessity of gradually increasing rate of devaluation for creation of a sustainability program of the economy to ensure sustainability between natural resources

in produced capital. Later, on October 20, 1987, the resolution of the 42nd Session of the International Federation of Individual Entities identified the basic principles of sustainable human development (Hollis, 1983). It is known that, the weak and strong sustainability notion have been differed in the world economic literature depending on economic development level of the country, integration from the selected development model to the world economy. "Weak sustainability- is so called development that it is not reduced from generation to generation". The other economists points out that, we are fully satisfied with the idea that weak sustainability is "regarded as a stable supply of consumer protection against worsening of fixed capital". It is very difficult and controversial process to identify accurate indicators and indices of the "weak and strong" sustainable development of those economists (Hahn,1993). "Sustainability-being a long-term economic, ecological and cultural viability" based on the unity of social, financial and ecological balancing of economic development (http://sustainableseattle.org/). Economic literature shows that, there are 5 key elements of sustainable economic development (E) indices and indicators for the evaluation of economy, ecology, justice, education and sustainable development (Guliyev,2002). Generally speaking, according to academician U.Alakbarov's idea, sustainable development involves the preservation of the lifestyle, the needs of the people, the poor balance between the improvement of the substance, the welfare of the natural resources and the ecosystem (Alakbarov, 2013). The analysis reveals that effective implementation of a sustainable development strategy in highly developed national economies has been identified by common principles, but its provision features in the mega, macro, mezo, micro and in the regional level should be taken into consideration. It further proves that, depending on the level of development of national economies of various countries, the role of individual factors can be different in increasing the competitiveness of the country. The strengthening of the social and humanitarian aspects of sustainable development in the international world over the last few years has become more urgent for practical utilization of those goals. In this regard, the "2030 Agenda" was adopted, taking into consideration the necessity of an institutional and policy-based approach for achieving sustainable development goals in our country up to 2030 in line with the goals of sustainable development adopted at the UN Summit in September 2015 and The National Coordinating Council for the Sustainable Development of Azerbaijan was established and transition to the inclusive economic growth concept was put forward as an important task. The provision of long-term inclusive economic growth is characterized by a strong negative impact on the disproportions, existing in the socio-economic development of the regions. Three Regional Development Programs covering 2004-2008, 2009-2013, 2014-2018 were adopted by the order of the President of the Republic of Azerbaijan for elimination of negative processes in regional economic development, which resulted in significant progress . Generally, fifty billion dollars have been spent on regional development in the country over the past fifteen years (Nuriyev, 2017).

3. THE OPPORTUNITIES, PRIORITY DIRECTIONS AND REALIZATION MECHANISM OF TRANSITION TO THE SUSTAİNABLE DEVELOPMENT CONCEPTION OF AZERBAIJAN

World practice shows that the practical implementation of sustainable development in a specific context of any country is based on a logical sequence: systematic SWOT analysis of the development of the national economy, determination of goals, the extent to which the existing system of economic relations meets the national interests, and finally requires the estimation of its regulation form, method, scale in the globalizing world. In order to ensure sustainable development, each country must solve four problems. Firstly, to implement a system of measures to solve the ecological problems that arise as a result of the development of the world economy in modern conditions; secondly, to implement the necessary socio-economic programs to ensure sustainable human development; thirdly, formulation and implementation

of appropriate policies for the solution of demographic problems in the modern condition;, the existing economic problems should be resolved systematically, taking into account current and perspective objectives for sustainable development; it should be emphasized that the possibilities for solving environmental, social and demographic problems are largely depend on the level and nature of economic development. At the same time, it should be noted that first of all the practical implementation is determined by the sustainable development conception of the country (Ahmadov and Huseyn, Baku 2014). At the same time, the analysis indicates that, while the sustainability potential is determined by the absolute advantages of the country, it can significantly increase its potential by implementing the correct, optimal, flexible economic policy, expecting the optimal stages of global, regional, national interests, current and perspective goals. From this point of view, the existing scientific-technical, financial, investment etc. the potential movement within their capacities and the allocation of resources should be considered optimally, allowing them to meet the current social and economic needs of the society as much as possible, but most importantly, do not restrict the financial welfare of these needs in terms of better payment and economic growth , in order not charge extra costs for future generations (debt, loan, etc.) (Ahmadov, 2005). The analysis shows that eventually, transition to a sustainable economic growth concept is largely depends on the development and effectiveness of the real sector. "The analysis of the Azerbaijan economy from the suggested point of view indicates positive results of the strategy. During the last 10 years macroeconomic stability has been maintained in the Azerbaijan economy, significant reforms have been made in the direction of diversification of the economy and entrepreneurship and necessary measures have been carried out. At the same time, the balanced development of the regions has been ensured, the economical competitiveness of the country has grown and the rapid integration of the country into the world economy has continued" (Muradov. 2018.). Provision of transition to the sustainable development is a direct problem with the expectation of the national economic security. The expectation of economic security is the internal and external factor covering the independence of the national economy, the stability of the recycling process at all levels in the country, the current and perspective goals and objectives, dynamic and sustainable development, as well as its constant renewal, self-development, may be referred to as a set of conditions, especially when it provides adequate financial support. As it is mentioned in the economic literature, "The financial viability of the country is one of the most important criteria for its economic independence. A state, which is unable to provide itself, could not provide its socio-economic development, its financial resources, could not be considered as a state (Muzzaferli, 2014). The concept of economic security should reflect not only the protection of national interests, but also the mechanism of protection and implementation of national interests, the development of national entrepreneurship and production, and socio-economic stability in society. In its' turn, achieving relevant results in the field of economic security, in some areas; reaviling the prediction of the internal and external jeopardies for the society in terms of life, creating necessary information base through comprehensive objective monitoring of economic processes, to undertake a complex of flexible and long-term measures to prevent and eliminate possible negative consequences of economic dangers, timely adaptation to global economic and economic challenges, global competition, resource constraints, adequate response to internal and external threats are required. The characteristic analysis of the economic policy carried out in Azerbaijan during the years of independence shows that the government of Azerbaijan has developed and implemented an optimal economic development strategy in these years, the notion of "delay effect" has not been observed in economic literature. The government of Azerbaijan has always tried to keep the regulatory potential, especially between the financial and regulatory levels. The implementation of liberalization of the financial market without creating the appropriate regulatory framework is undoubtedly the usual recipe of economic instability (Stiglitz, 2004).

At the same time, Yantirberg's idea that the scale of the arrangement should be coordinated with the country's regulatory capabilities is of particular importance. In order to ensure sustainable economic growth, it is important to make the necessary structural and institutional changes in conditions, demand and potential (Fischer, 1988). Pointed out records prove that the appropriate changes should be carried out in the structure of the recycling for the improvement of sustainable economic development according to the changing circumstances and the needs, the proportion between the financial potential and real sector development. Thus, the evaluation of socio-economic processes based on the 360-degree diagnostics indicates that the production process can be effectively implemented in any national economy. However, if the division and exchange process in the country is not optimal, especially if the existing products and services are not used efficiently, then the overall economic growth will sharply fall and "impoverished economic growth" will be observed in the country. Analysis shows that, in regulation of socio-economic processes fiscal regulation has played a decisive role over the past few years in Azerbaijan. But over the past two years, the negative pressure of external factors, global challenges, sharp differences between domestic prices and world market prices for products and services, etc. the broad introduction of monetary regulation on the floating exchange rate regime of our country will be transformed to an objective necessity in the near future. It is also the fact that every law adopted in accordance with the effective implementation of the sustainable economic development strategy should take into account the current and perspective objectives, having a strong, intellectual load. As a matter of fact, the legislative framework for the regulation of socio-economic processes and the economic policy implemented by the state is reflected in this field. The objective evaluation of the impact of legislation of economic development dynamics and character (Regulatory Impact Assessment Seminar, 2016) is very important. In this regard A.L.Hillman strictly states that the legislative rights of stakeholders (owners) should be determined taking into account the possibilities and restrictions on managing socio-economic processes (Arye, 2000). The distribution of legitimate rights affects the mechanism of stimulation in this or that direction, respectively, on the distribution of revenue "through the effect of income". Therefore, provision of the effective functioning of a competitive and dynamically developing national economy, the effectiveness of the regulatory system, the model, which developed and applied in the country depends more on the management processes as a whole. Generally, while evaluating the impact of legislation on socio-economic processes, it should not be overlooked that the assessment of the environment, the provision of national economic security and competitiveness, as well as the expectations of the interests and benefits of the contemporary and future generations, should be taken into account. In recent years, as a result of the economic development strategy implemented in our country, significant progress has been made for improving the competitiveness of the national economy, inclusiveness, infrastructure development and the overall business environment, as well as the dynamics of economic freedom indices. In the "Global Competitiveness" Report for 2017-2018, the rating of the Republic of Azerbaijan rose two-fold to 35th in terms of inclusive growth, making it a third place among the countries with emerging economies.

4. CONCLUSION

Generally, macroeconomic analysis and evaluation of the existing condition of the development of Azerbaijan, considered measure system in the direction of the realization of the main sectors of national economy are based on the perspective development of the strategic road map. Forthcoming strategic targets, real objectives and potential opportunities of our country are based on the recently formed effective market mechanism, administrative and organizational practice. The provision of the transition of our country to sustainable development conception in a near perspectives; the realization of the innovation-oriented investment policy; effective operating relevant production: creation of social oriented market infrastructure; formation of

national innovation system; achieving a sharp increase in the share of intellectual capital in gross domestic product; implementation of necessary structural and institutional changes according to conditions and requirements of the world market, in a globalizing world.

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EVALUATION OF EXPORT DIRECTIONS OF AZERBAIJAN IN THE WORLD MARKET

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ABSTRACT

Trade is an ancient economic relation form among the countries and regions of the world. The development and expansion of trade caused to the establishment of the world market. The growth in a number of countries and population created foreign trade between the countries and formed export and import directions. The trends appearing in the world trade, the position of the Republic of Azerbaijan in world market, the situation of foreign trade, the export quotas of Azerbaijan, geographical and economical integration unities of export, commodity structure, the existing export directions of Azerbaijan over world countries, the suggested forecast of the export directions of Azerbaijan by 2030 are given, the main targets and export directions on the increasement of product export from Azerbaijan have been revealed in the research work.

Keywords: *world market, foreign trade, export, foreign trade quota, geographical and commodity structure of export, export directions*

1. INTRODUCTION

The world market historically formed on the basis of international labor division and is an ever-growing commodity and service exchange system, established by international trade-economic, currency-finance and credit relations between countries. The world market is an integral part of the world economy. The main reasons stimulating the development of the world market at the historical stages are considered as a building of ocean ships, railroad constructions, discovery of telegraph and further mass-media, the utilization of international channels, the creation of currencies, the formation of banks etc. Trade in its turn is rapidly developing and ever-expanding form of the world market. Trade unites all mankind for the sake of mutual dependence and interests. (James Abram Garfird). Trade, has been transformed into an international trade area by combining world countries under the influence of economic laws and regulations which underpins historical development stages. The investigation of the law of demand and supply in international trade replies the answer why the countries are trading with each other, after proving that the development is impossible without trade, and each country has to ask a main question: what policy should the country pursue in international trade: free trade or protectionism? From the ages of Adam Smith, the science of economics implements unambiguously free, independent trade, defends and prefers the liberalization of foreign trade relations [1]. However, the real condition of the national economies and the political processes occuring in the world reveals that some of the countries entering the trade, take a large gains-large incomes from foreign trade, while some countries are facing with a great defeat-great losses. The main reason of this problem is how to choose a foreign trade policy. Because profits or losses from foreign trade have a direct and indirect impact on the economic interests and economic position of the population of each country. The scale, trends and commodity structure of the world trade have completely changed over the last 100 years, and agricultural raw material trade transferred to the industrial product trade. If the commodity structure of the world trade was 66%, agricultural raw materials and industrial products were 34% at the beginning of the XX century, industrial products were 76%, agricultural raw materials and products fell to 24% at the beginning of the XXI century. It envisages that the world trade stride towards from raw material trade to finished product trade, the agrarian sector is industrialized and the "world factories"(People`s Republic of China)are establishing.

Expert calculations show that 3-5 times increasement of the transition from raw material-to-finished products, the creation of new value chains, give the chance to get additional revenue of 5-7 times through the creation of added value. From the beginning of the 21st century, the struggle began for markets in the world trade, "trade wars" are increasing, and every country tries to increase their export and foreign exchange reserves by increasing their domestic production, attempt to take a place and gain position in the world market. In this regard, each country should determine their profitable export and import directions. The World Trade Organization (WTO) emerged after the Second World War, and at present united by 162 countries of the world, is the world center for international trade, covers 97% of world trade in 2018. According to WTO reports, 52% of all exports in the world commodity trade (FOB) fall to a total share of 10 countries, being 9 % in the top three countries; China, the USA and Germany. The another opportunity which draws attention is that 52% of all imports in the world commodity trade still fall on the share of those 10 countries, with 13% in the USA, 8% in Germany and 7% in China. Japan, France, England, Italy, Netherlands, Belgium and Canada occupy the remaining 7 places by 5-2% [3]. According to the UNCTAD (United Nations Conference on Trade and Development) report, the main share of the commodity export structure of world trade is finished products (71.3%). The share on foodstuffs export form 6.6%, agricultural raw materials - 1.7%, minerals - 3.6% and fuel- 3.6%. After 1980, the share of finished goods in the world commodity exports has increased, and the share of food products and agricultural raw materials has decreased. While the share of finished products has increased in the export of both Developed and Developing Countries, the share of food and agricultural raw materials has declined. According to the development level of world countries classification, 72 percent of the world exports fall to the share of developed countries, 23 percent to the developing countries, and 5 percent to the countries with Transition Economies. Azerbaijan - implementing large transnational projects as a “Conract of the Century” which was founded in 1994, gaining large revenues, providing the effective utilisation of revenues, creating large foreign exchange reserves, transfered from importing country to exporting country and should determine its export directions for the next 30 years. That is why the Republic of Azerbaijan has prepared its own strategic roadmap and is going towards the direction. Azerbaijan - historically being the oil country and effectively utilizing its own oil resources will gain a large oil revenues over the next 30-50 years, together with diversifying its economy, eliminating oil dependence and turning into a major industrial, logistics and geo-economic center. 40% of oil, 23% of natural gas, 27% of coal, 7% of nuclear energy and 3% of hydrogen comprises in the structure of primary consumption of energy transportation of the entire world. It confirms that the share of oil and gas in the consumption of world energy transportation will be high for many years and successful energy policy of Azerbaijan will also earn significant revenues from its oil and gas exports. If the currency reserves of Azerbaijan were $ 1.8 billion in 2003, this figure reached $ 45 billion in 2018, in other words, foreign currency reserves of Azerbaijan grew 24 times in late 15 years. 554.4 million tons of crude oil, 308.5 billion cubic meters of natural gas, 16.5 million tons of petrol, 32.8 million tons of diesel fuel, 8.8 million tons of paraffin including gas condensate was produced in the country for 2004-2017. According to BP reports, 4382.4 million tons of oil was produced in 2016 in the world, of which share is 75.8 percent for non-OECD countries, 24.2 percent for OECD countries, 42.5 percent for OPEC countries, 57.5 per cent for non-OPEC countries, and only 1.6 per cent for EU countries. It is completely different situation in the consumption. The share of OECD countries in consumption, i.e. the share of developed countries club, is almost half, i.e. 47.5%. In the same year, oil production in Azerbaijan amounted to 41 million tons, i,e. 0.9 percent of the world's oil production, which is a great resource and source of income for the countries with less territory and population. The productivity of natural gas will grow more rapidly in the next 3-5 years, and the prescient oil-gas policy will yield profits.

2. FOREIGN TRADE AND EXPORT QUOTA OF AZERBAIJAN

Along with the production in the economic development of each country, its` access to the world market, efficient foreign trade relations, and especially the more profitable export trends play an important role. The foreign trade turnover of the Republic of Azerbaijan between 2010 and 2017, is the peak year - 2011 (USD 44.1 billion), the minimum year - 2016 (USD 21.6 billion), the peak year of exports again is 2011 (USD 34.4 billion), and the minimum again was 2016. If in 2011, export comprised 78% of foreign trade turnover by USD, this indicator was 60% in 2016. And its main reason was the unexpected decline of the national currency of Azerbaijan-AZN (manat) in 2015. After 2016, foreign trade turnover and exportation also began to increase. Foreign trade, determining the position of all countries, including Azerbaijan in the world economy, the place in the international market and the level of openness to the world market is the export and import quota. It is determined by the ratio of those indicators to GDP. The export quota of Azerbaijan for the last two years is given in table 1.

Table 1: The export quota of Azerbaijan

Years	GDP, USD billion	External trade turnover, USD million dollars	Export, USD million dollars	Export quota,(%) percent
2016	37.9	21596.6	13107.5	34.7
2017	40.8	22593.6	13811.6	33.7

Table 1 shows that in 2017, Azerbaijan's GDP and foreign trade turnover, as well as exports increased, in comparison with 2016. The export quota of Azerbaijan, which attracts attention, increased in 2016 compared to the previous year and reached 34.7 percent, which is a very high indicator for economies in transition.

3. GEOGRAPHICAL STRUCTURE OF EXPORT

The geographical position of Azerbaijan affects the geographical structure of its export. It is distinctly shown in Table 2.

Table 2: Geographical structure of Azerbaijan's export
(USD million and weight in percentage)

Countries	2016	2017
Europe	4558.6	8551.8
Asia	4211.2	4476.8
America	146.6	597.4
Africa	226.5	184.7
Oceania	0.6	0.7
Total	100	100
including:		
Europe	49.8	61.9
Asia	46.1	32.4
America	1.6	4.3
Africa	2.5	1.4
Oceania	0.0	0.1

Table 2 shows that total export increased over the past two years, including that to the European, Asian and American continents, but the export to African continent decreased. In 2017, 61.9 percent of export share fall on European continent, and only 1.4 percent of the share fall to African continent where there are 54 countries.

The first place in the export of Azerbaijan to the economic integration unions belonged to the Organization for Economic Co-operation and Development (OECD) with 65.7 percent in 2017, followed by the European Union (EU) with 54.0 percent and the Organization of Black Sea Economic Cooperation (BSEC) with 23.2 percent, Asia-Pacific Economic Cooperation (APEC) with 18.3 percent, the Organization of Islamic Cooperation (OIC) with 16.4 percent, the Economic Cooperation Organization (ECO) by 11.1 percent, the CIS countries by 7.6 percent, Organization for Democracy and Economic Development (GUAM) with 6.0%, ASEAN with 4.6%, European Free Trade Association (EFTA) with 1.3% and OPEC with 0.4%. It shows that the volume of exports is higher to OECD, EU and BSEC countries among economic integration associations and organizations, and economic relations with them are more intense. Therefore, measures should be carried out for maximum utilization of the power of these international organizations and international economic integration associations on geopolitical and geo-economic dimensions.

4. COMMODITY STRUCTURE OF EXPORT

The dependence on one product is a forthcoming challenge in the economic security of the country. Therefore, Azerbaijan goes through economic diversification by using oil and gas as a tool. The commodity structure of the export of Azerbaijan in 2016 and the forecast of the commodity structure of export for 2030 are given in Table 3.

Table 3: Forecast of Azerbaijan's commodity export structure on the International trade standards classification system

No	Products	2016 (factual)* million USD	Share in export, in percent (%)	
			2016 (factual)	2030** (forecast)
1	Mineral fuels	7955.8	87.0	80.7
2	Food products and live animals	478.2	5.2	6.0
3	Industrial goods	273.7	3.0	4.5
4	Chemical products	153.2	1.7	3.5
5	Transport equipment and machinery	103.3	1.1	1.5
6	Non-food raw materials (without fuel)	45.2	0.5	0.7
7	Drinks and tobacco	27.6	0.3	1.0
8	Animal and vegetable oils	191.2	0.2	0.5
9	Various industrial products	15.2	0.2	0.6
10	Other goods	76.8	0.8	1.0
	Total:	**9143.3**	**100**	**100**

** SSCRA (The State Statistical Committee of the Republic of Azerbaijan) data [4]*
*** Calculated by the author.*

As it is seen from table 3, that mineral fuel - crude oil, oil products and natural gas have an absolute advantage in commodity export structure of Azerbaijan in international trade standards classification, comprising 87.0 percent of the total exports. The next products comprise between 0.2 and 5.2 percent. Calculations show that oil and natural gas will still have a large share in export for many years. However, as it is seen from the strategic roadmaps, that the share of mineral fuels will decrease due to development of manufacturing products and services in other sectors - especially in chemistry, machinery, agriculture, manufacturing.

5. EXPORT DIRECTIONS OF AZERBAIJAN

All developed countries gain much more revenues by accurate calculation of their export directions. Geopolitical and geo-economic position, geographical location, natural resources, scientific and technical situation of the countries in the world and other factors play a special role in this. Geographical location is an absolute advantage of Azerbaijan. The situation of the export directions of Azerbaijan in 2017 under the influence of such factors as: the utilization of resources, political stability, the implementation of transregional projects and those proposed for 2030 are presented in Table 4.

Table 4: Export directions of Azerbaijan by countries in 2017 and 2030

Top 10 countries in the export of Azerbaijan					
2017 (factual)			**2030 (forecast)**		
No	Countries	**Share in export by percent**	No	Countries	**Share in export by percent**
1	Italy	31.9	1	Italy	32.0
2	Turkey	9.9	2	Turkey	12.0
3	Israel	4.6	3	Russian Federation	5.0
4	Russian Federation	4.3	4	Germany	4.5
5	Czech Republic	4.0	5	Georgia	3.5
6	Canada	3.9	6	Israel	3.5
7	Georgia	3.4	7	Croatia	3.4
8	Indonesia	3.4	8	İndonesia	3.4
9	Germany	3.3	9	India	3.0
10	Portugal, etc.	3.2	10	China (PRC) etc.	3.0

Table 4 shows that, 71.9% of Azerbaijan's exports in 2017 fell to the share of ten countries, and up to one-third – 31.9% [5] to the share of only one country (Italy). Turkey, a very close and advisable for Azerbaijan from the geo-economical, historical and national point of view, and the Russian Federation with a large demand-oriented market comprise minority from the potential point of view. The exporting countries listed in Table 4 on the forecast of 2030, should be taken as the main direction in the upcoming decade. The geo-economic position affecting the economic development, the amount of natural resources, the attempts of territorial redistribution, national and religious discrimination, the clash of interests, etc. such rigorous factors require foreseing and determination of the structure of the commodity export, its diversification and directions in all countries, including Azerbaijan in the new world order. The oil and gas projects implemented in Azerbaijan change the Eurasian energy map. Azerbaijan, being one of the 42 countries that have no access to the open sea, is now becoming one of the world's major transportation and logistics centers through the “North-South” transport corridor, the new geo-economic and industrial center of Eurasia.

6. CONCLUSION

The main targets for commodity structure of the increase in product export from Azerbaijan by 2030 are as follows:

1. Partial increase or stabilization of crude oil production, reduction of its export;

2. Creation of value added chains of large industrial enterprises producing high-tech petroleum products, perfumery and cosmetic products for transition from crude oil to finished oil products;
3. Increasing natural gas production and exports;
4. Increase of production and export of chemical products;
5. Rapid growth of fruits and vegetables, especially tomato production and export;
6. Rapid growth of cotton, tobacco, tea, honey, hazelnut, saffron and rice production and export;
7. Rapid growth of wine and mineral water production and export;
8. Rapid expansion of carpet production in Azerbaijan and increase of export;
9. Increasing the export of fish and fish products by rapid boosting of fisheries;
10. Increase of production and export of agro-processing products;
11. Increasing tractor exports through increasing production at Ganja automobile plant;
12. Increase of production and export in Nakhchivan, Neftchala and Ganja car factories, etc.

The main directions of product export from Azerbaijan to continents and countries until 2030 are as follows:

1. Increasing export by continents to Europe and Asia and by economic integration unions to European Union, CIS and ASEAN countries can promote national economic development;
2. Increaseing fields of export to Italy, Turkey, Russia and Germany, preparation of projects on export promotion lines to new destination countries – India, China, Croatia, etc.
3. Expansion of product export, petrochemicals to Turkey, fruits and vegetables to Russia, petrochemicals and processing products to Germany, mineral water, plant-growing products, vegetables and processing products to the Middle East countries, increasing export of natural gas, chemical products, food products, etc. to South-East Asian countries.
4. Rapid expansion of transport-expedition and logistic services for the efficient use of the potential of East-West and North-South transport corridors passing through Azerbaijan;
5. Concentration of 71.9 percent of Azerbaijan's exports to 10 countries in 2017 is not considered geopolitically acceptable, and in the future it is deemed necessary to increase the number of export countries and their share in export.

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IMPACT OF INTEREST RATES ON MANUFACTURING'S SHARE OF GDP

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ABSTRACT
Paper provides analysis of the impact of interest rates on manufacturing's share of GDP across countries and argues that 1) interest rates differently affects tradable and non-tradable sectors, 2) manufacturing is more sensitive to interest rate fluctuations than the non-tradable sectors, and 3) high interest rates lead to the shift from the manufacturing to the non-tradable sectors that negatively affects the trade balance of goods and services.
Keywords: *deindustrialization, interest rates, manufacturing's share of GDP*

1. INTRODUCTION

While a decline in manufacturing's share of GDP is a global tendency and takes place in both OECD and low income countries (Figure 1), its causes and consequences vary across countries. In OECD countries decline in manufacturing's share of GDP is due to increase in efficiency, high income per capita (Fisher, 1935; referenced by Maroto-Sanchez, 2010, p. 8) or high efficiency in manufacturing compared to service sector (Baumol, 1967), but in low income countries deindustrialization results in persistent trade deficit in goods and services (Figure 2).

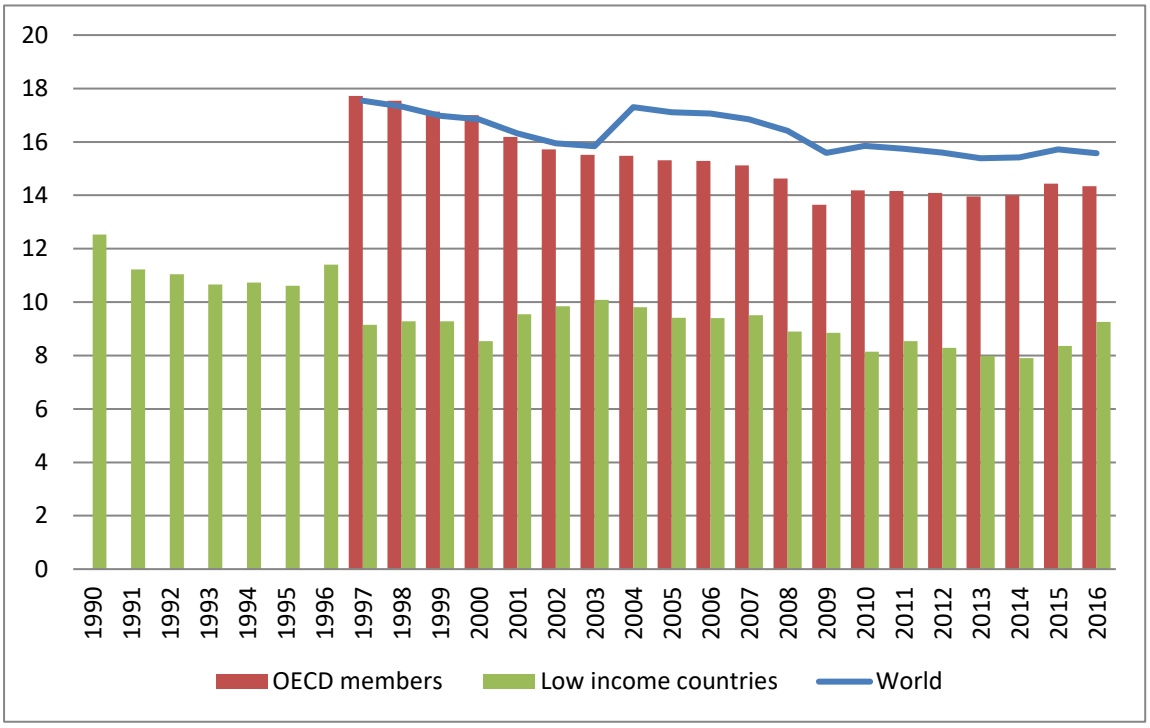


Figure 1: Manufacturing's share of GDP, % (World Bank)

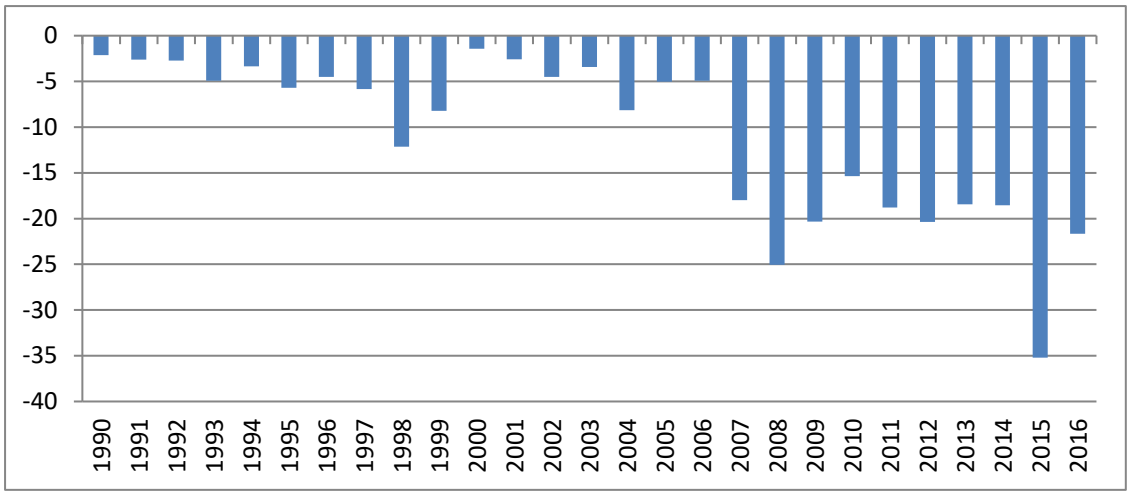


Figure 2: Net trade in goods and services in countries where manufacturing's share of GDP is less than 10% (except oil and OECD countries), billion US dollars (World Bank)

Researchers highlight the following causes of deindustrialization.

- Increase in productivity in economy. Increase in productivity causes rise in leisure time that leads to increase in service's share in consumption as people spend more time on entertainment, recreation and other leisure services (Dridea, Sztruten, 2010; Kraus, Barber, Shapiro, 2001).
- Other factor causing shift from manufacturing to service sectors is increase in income per capita. As demand for service (particularly housing, health and recreation) is income elastic compared to manufacturing goods (Fisher, 1935; referenced by Maroto-Sanchez, 2010, p. 8; Gemmell, Falvey, 1996), increase in income per capita leads to increase in service's share of GDP.
- Increase in efficiency in manufacturing compared to service sector also accelerates shift from the manufacturing to the services sector. There is a tendency for the outputs of the low-efficiency sector to decline. However if demand for the product of low-efficiency sector is price inelastic or income elastic, resources will be transferred to low-efficiency sector (Baumol, 1967). So, as demand for service is income elastic compared to manufacturing goods, efficiency increase in manufacturing causes resources to shift to service sector. A positive correlation between the efficiency gap between manufacturing and service sectors and decrease in the proportion of the manufacturing sector has been supported by many studies (Rowthorn, Ramaswamy, 1997; Hori, Mizutani, Uchino, 2018).
- In resources-rich countries decline in manufacturing's share of GDP is caused by appreciation of national currency due to the export of natural resources (so-called Dutch Disease) (Magud, Sosa, 2010).
- Appreciation of national currency induced by surges in capital inflows, foreign aid, remittances from immigrants, etc. also negatively affects manufacturing's share of GDP (Magud, Sosa, 2010). The negative effect of remittance on tradable sector in different countries has been supported by many studies (Uddin, 2015; Nikas, Blouchoutzi, 2014; Makhlouf, Mughal, 2013).
- Hori, Mizutani, Uchino (2018) argue that decentralization of economy positively affects shifts from the manufacturing to the services sector.

In addition to the above, paper argues that high interest rates also contribute to low manufacturing's share of GDP. High interest rates imply higher cost for domestic firms but as manufacturing firms face foreign competition, they cannot pass the cost onto consumers by raising its price.

However firms producing non-tradable goods, which are not exposed to the foreign competition, are able to raise prices, passing on higher costs to consumers, and protect profit margins. As a result, manufacturing becomes less profitable compared to non-tradable sector that causes resources to shift from manufacturing to non-tradable sector. Paper argues that 1) interest rates differently affect tradable and non-tradable sectors, 2) manufacturing is more sensitive to interest rate fluctuations than the non-tradable sectors, and 3) high interest rates lead to the shift from the manufacturing to the non-tradable sectors that negatively affects the trade balance of goods and services.

2. INTEREST RATES AND MANUFACTURING'S SHARE OF GDP ACROSS COUNTRIES

Decrease in manufacturing's share of GDP is a global trend, and takes place in both OECD and low income countries. Researchers highlight the following causes of it: increase in productivity in economy (Dridea, Sztruten, 2010; Kraus, Barber, Shapiro, 2001), increase in income per capita (Fisher, 1935; referenced by Maroto-Sanchez, 2010, p. 8; Gemmell, Falvey, 1996), increase in income per capita, increase in efficiency in manufacturing compared to service sector (Baumol, 1967; Rowthorn, Ramaswamy, 1997; Hori, Mizutani, Uchino, 2018), appreciation of national currency due to the export of natural resources, surges in capital inflows, foreign aid, remittances from immigrants, etc. (so-called Dutch Disease) (Magud, Sosa, 2010), decentralization of economy (Hori, Mizutani, Uchino, 2018). In addition to the above, paper argues that high interest rates also contribute to low manufacturing's share of GDP. High interest rates imply higher cost for domestic firms but as manufacturing firms face foreign competition, they cannot pass the cost onto consumers by raising its price. However firms producing non-tradable goods, which are not exposed to the foreign competition, are able to raise prices, passing on higher costs to consumers, and protect profit margins. As a result, manufacturing becomes less profitable compared to non-tradable sector that causes resources to shift from manufacturing to non-tradable sector. In order to show the impact of interest rates on manufacturing's share of GDP statistically, we divided the countries into 3 groups. First group are countries where real interest rate on bank loans[1] is less than 5%, second group are countries where real interest rate on bank loans is 5-10%, third group are countries where real interest rate on bank loans is more than 10% (Figure 3). The Figure 3 shows that in the first group of countries, where real interest rate on bank loans is less than 5%, average manufacturing's share of GDP is 13.5%, in the second group of countries, where real interest rate on bank loans is 5-10%, average manufacturing's share of GDP is 9.5%, and in the third group of countries where real interest rate on bank loans is more than 10%, average manufacturing's share of GDP is 9.2%. The Figure 4 shows that among 15 countries where manufacturing's share of GDP is higher than 20% (2016) only in three countries real interest rate on bank loans exceed 5%.

Figure following on the next page

[1] Real interest rate on bank loans is the lending interest rate adjusted for inflation (as measured by GDP deflator)

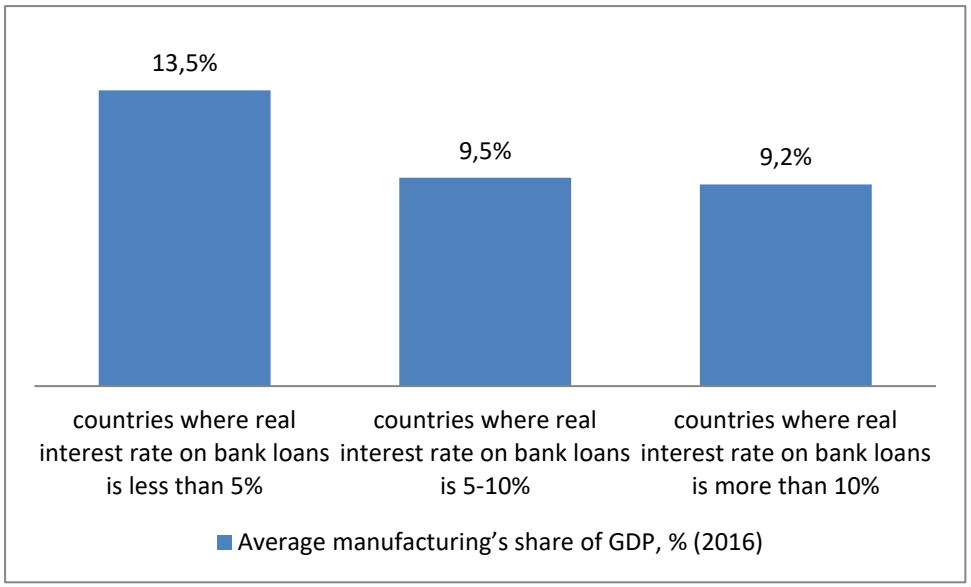


Figure 3: Real interest rate on bank loans (lending interest rate adjusted for inflation as measured by GDP deflator) (2010-2017) and average manufacturing's share of GDP (2016) (World Bank, Euro area statistics)

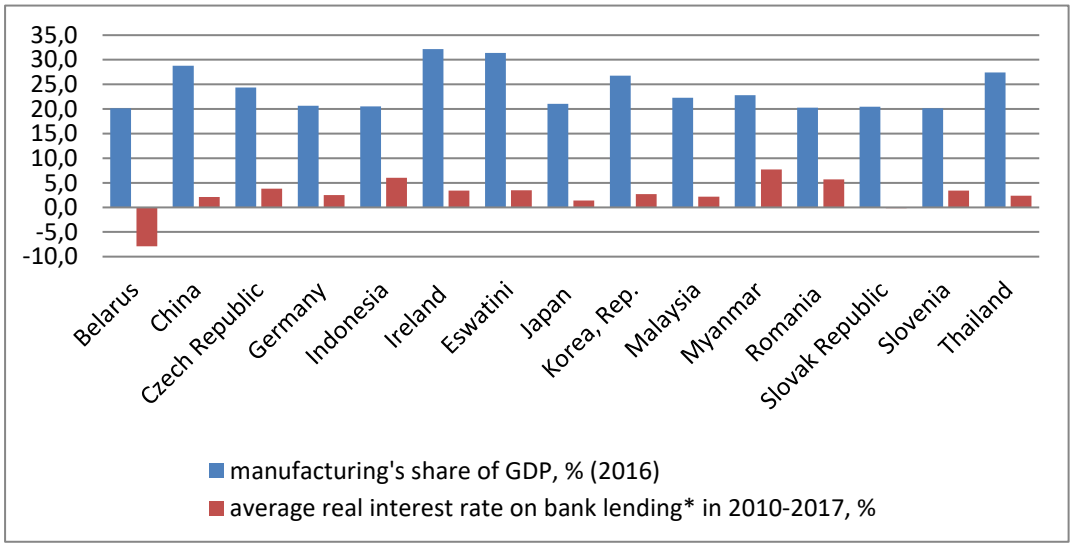


Figure 4: Average real interest rate on bank loans (lending interest rate adjusted for inflation as measured by GDP deflator) and manufacturing's share of GDP (World Bank)
**Real interest rate on bank loans is the lending interest rate adjusted for inflation (as measured by GDP deflator)*

3. MANUFACTURING'S SHARE OF GDP IN AZERBAIJAN, AND FACTORS CAUSING IT

Azerbaijan also faced deindustrialization. In 2003-2017 the manufacturing's share of non-oil GDP in Azerbaijan declined from 11.9% to 7.1% (Figure 5). Decline in manufacturing's share of GDP resulted in increase in non-oil trade deficit in goods and services from 1.3 billion US dollars to 7.9 billion US dollars in 2000-2017[2]. In Azerbaijan as in other resource-rich countries, decrease in manufacturing's share of GDP is traditionally associated with exchange rate appreciation (during oil boom in 2005-2014 real effective exchange rate of manat increased by

[2] Central Bank of the Republic of Azerbaijan

47%[3]). However high interest rates in Azerbaijan (Figure 6) also contributes to low manufacturing's share of GDP. When loans-to-added value ratio in Azerbaijan's manufacturing was low, lending rates had little impact on costs of manufacturing firms. However since 2006, as loans-to-added value ratio in manufacturing rose, impact of lending rates on firms' costs also increased that negatively affected the competitiveness of manufacturing and its share of GDP. In 2014 loans-to-value added ratio in manufacturing reached 73% that was higher than that of most post-Soviet countries (Figure 7). After depreciation of manat, as loans to manufacturing fell more than 3 times (from 2028 mln. manat in 2014 to 612 mln. manat in 2017)[4], loans-to-value added ratio decreased to 19% that allowed manufacturing firms to reduce the costs and slightly improve the competitiveness.

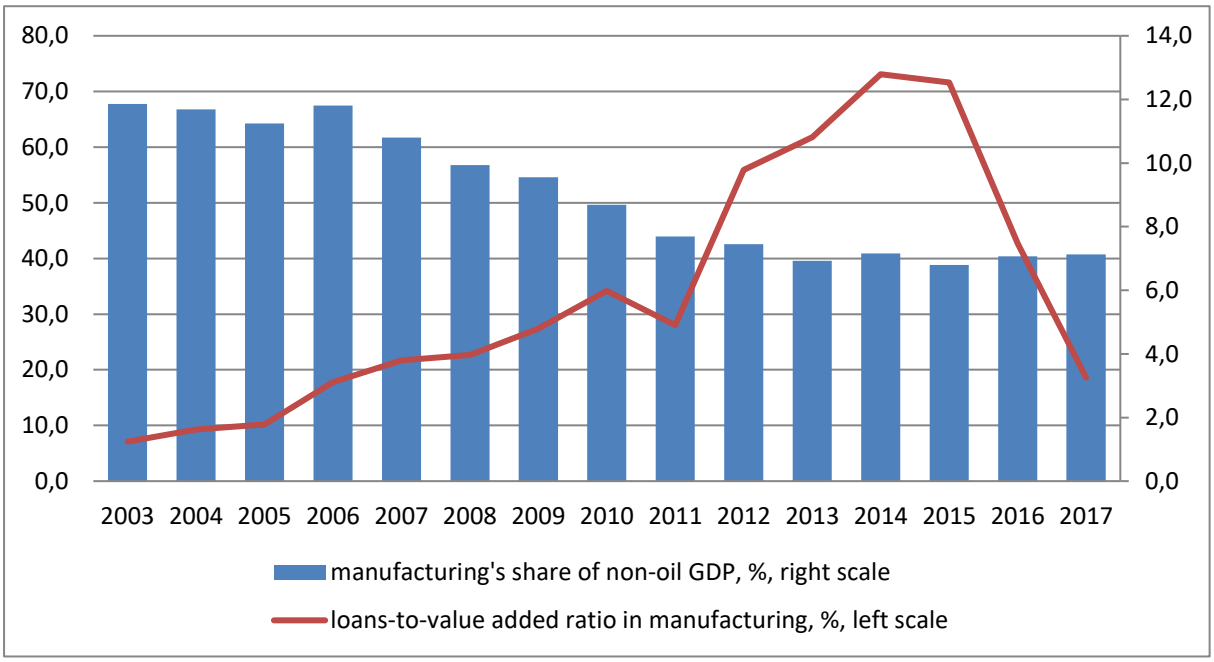


Figure 5: Loans-to-value added ratio in manufacturing and manufacturing's share of non-oil GDP in Azerbaijan (author's elaboration based on the State Statistical Committee of the Republic of Azerbaijan and Central Bank of the Republic of Azerbaijan)

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[3] Ibid.
[4] Ibid.

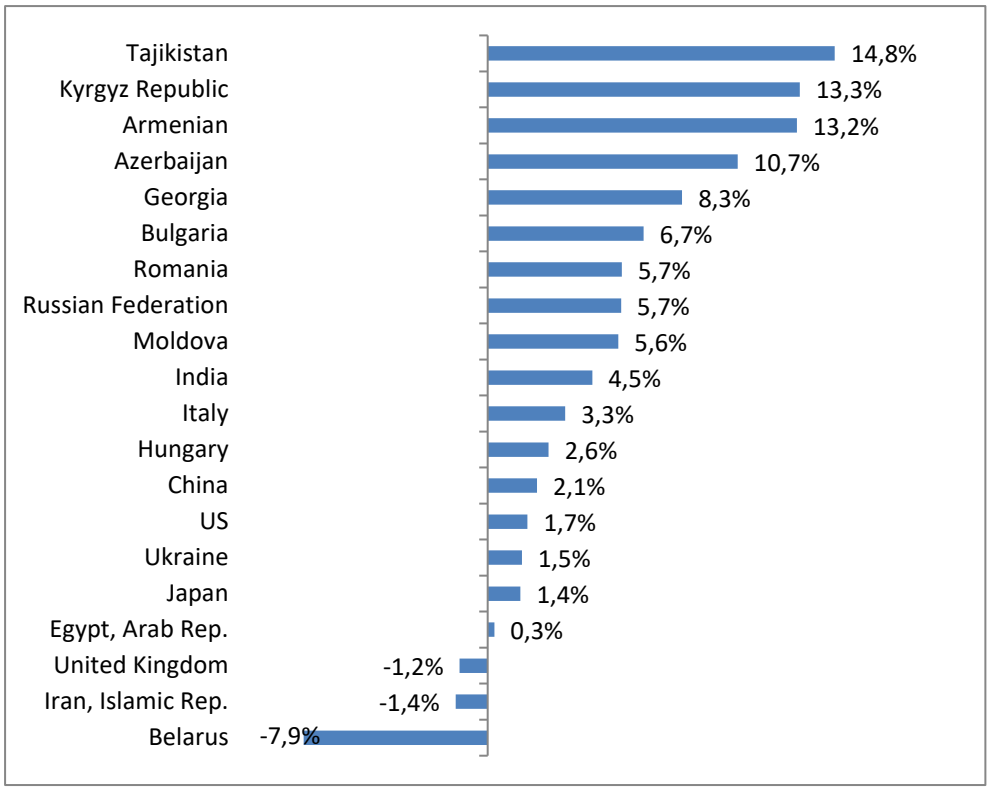


Figure 6: Average real interest rate on bank lending (lending interest rate adjusted for inflation as measured by GDP deflator), %, 2010-2017 (World Bank)

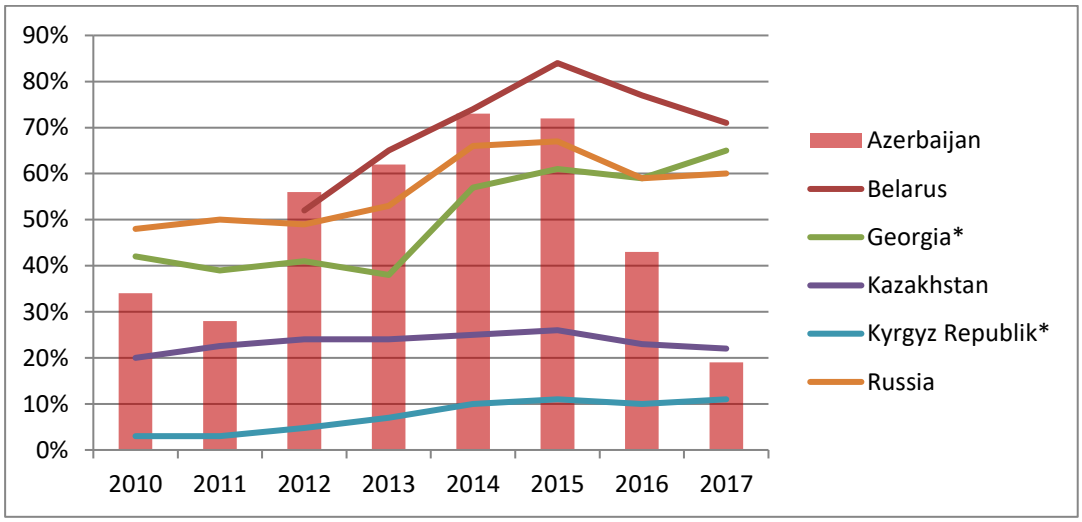


Figure 7: Loans-to-value added ratio in manufacturing, % (author's elaboration based on the countries' Central Banks and the State Statistical Committees)
** Loans-to-value added ratio in industry*

4. CONSLUSION

Paper argues that interest rates differently affect manufacturing and non-tradable sectors. Manufacturing is more sensitive to interest rate fluctuations than the non-tradable sectors, and high lending rates lead to decrease in manufacturing's share of GDP below optimal level that negatively affects the trade balance of goods and services. The paper shoes that in countries, where real interest rate on bank loans is less than 5%, average manufacturing's share of GDP is 13.5%, in countries, where real interest rate on bank loans is 5-10%, average manufacturing's share of GDP is 9.5%, and in countries where real interest rate on bank loans is more than 10%,

average manufacturing's share of GDP is 9.2%. The paper also shows that among 15 countries where manufacturing's share of GDP is higher than 20% (2016) only in three countries real interest rate on bank loans exceed 5%. Paper also argues that high interest rates in Azerbaijan compared to other countries negatively affect the manufacturing's share of non-oil GDP and trade balance of goods and services.

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APPLICATION OF INNOVATIVE KNOWLEDGE FOR EFFECTIVE RECOVERY OF INDUSTRIAL WASTE IN MANUFACTURING PROCESSES OF WOODWORKING INDUSTRY

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ABSTRACT

Nowadays research in the field of wood science is focused on the development of innovative hihg value-added products derived from wood as well as on their maximized utilization rate. On one hand constant increase in yield and efficiency of processing of all sortiment of wood are most welcome, but on the other hand, decreasing quality of raw materials. One of the possibility how to solves this problem is application of innovative ecological acceptable adhesives for manufacturing wood products, which utilize also less quality raw materials and lignocellulose waste. Adhesive bonding has become an efficient and economically viable way for better utilization of wood feedstock and lignocelluse waste. In the manufacturing process of sulphate pulp, are created of lignocellulosic waste - kraft black sulphate liquors. At present organic components of the sulphate liquors are utilized in the regeneration process, i.e. they are incinerated to provide heat energy and carbon, which serves to reduce sodium sulphate to sulphide as one of the components of the cooking solution. Such recovery of waste generated does not lead to the solution of environmentally acceptable means of recovery of waste products. By modifying the treatment of waste sulphate liquors we can reciprocally replace some toxic components of polycondensation adhesives in the preparation of various wood materials (composites). In our research, we focused on the preparation of modified sulfate liquors (from lignocellulosic waste) that we applied the preparation of environmentally acceptable polycondensation adhesives in the experimental preparation of innovative wood materials demanded by customers in the wood consumer sector.

Keywords: *Effective recovery of waste, Innovative knowledge, Wood products*

1. INTRODUCTION

The problem of waste generation and the ways of its safe, environmentally acceptable and economically advantageous disposal is currently an exceptionally topical economic and also political problem in the global aspect. At the same time, the issue of the impact of the increasing amount of industrial waste on the environment and population health is very actually. Research is also looking for innovative solutions to help efficiently recycle or recover industrial waste generation so that environmentally acceptable materials can be prepared for consumers in different industrial sectors (Behin, 1987; Lynch, 1987; Bučko, 1997; Gargulak and Lebo, 2000; Lora and Glasser, 2002; Ružinská, 2018a,b). At present research in the field of wood science is focused on the development of innovative value-added products derived from wood as well as on a maximized utilization rate, e.g. production of wood-based products with utilization of industrial waste. However, as a result of efforts to improve the environment, while maintaining the required qualitative characteristics, global developments in the field of wood materials (as raw materials of the 21st century) have led to the development of new or effective modifications of existing technologies, focusing on reducing the emission of formaldehyde and other toxic components contain polycondensation adhesives applied to the preparation of composite wood materials (Lora and Glasser, 2002; Que and Furuno, 2007; Hatakeyama, 2010; Boruszewski et al., 2012; Figueiredo et al., 2018; Ružinská, 2018b).

The solution of the problem is reciprocal replacement of the toxic components (as phenol and partially formaldehyde) of currently produced polycondensation adhesives (especially phenol-formaldehyde resins - PF), e.g. by sulphate black liquors, which can be isolated as a secondary raw material from the pulp and paper industry in the production of sulphate pulp, where are created in the form lignocelulosic industrial waste (Duong, 2011; Behim, 2016; Kordheili, 2016; Ružinská, 2018a). However, sulphate liquors are characterized by a relatively low reactivity to formaldehyde, thus not requiring their incorporation into the polymeric matrix of mixed lignin-phenol-formaldehyde polycondensate. For this reason, it is necessary to modify the reactivity of the original sulfate liquor by the modification reactions: as methylation, acidification, phenolation, hydroxymethylation, demethylation and the other (Dolenko and Clarke, 1978; Xinnan et al., 1985; Van der Klashort, 1988; Wooten et al., 1988; Olivares et al., 1995; Shimatani and Sano, 1995; Vasquez et al., 1997; Lepifre et al., 2004; Ružinská, 2010; Behin, 2016). In our research, we focused on the preparation of modified sulfate liquors (from lignocellulosic waste) that we applied the preparation of environmentally acceptable polycondensation adhesives in the experimental preparation of innovative wood materials demanded by customers in the wood consumer sector.

2. WASTE SULPHATE LIQUORS

Alkali lignins are polydispersive, three dimensional macromolecules derived from native lignin by hydrolysis in alkali and subsequent precipitation under acidic condition. Absence of free phenolic hydroxyls and low cross-linking degree make alkali lignins applicable as substitutes of phenol in phenol-formaldehyde polycondensates (Chen, 1997; Çetin and Özmen, 2002). Properties of alkali lignin strongly depend on lignin origin, delignification procedure and separation method (Bučko, 1997; Lepifre et al., 2004; Hatakeyama, 2010; Ružinská, 2018b). Sulfate process lignin – especially when demethylated – is a convenient resource of aromatic raw materials for adhesives and polymers (Xinnan et al., 1995; Behin, 2016). Black liquor contains condensates of saccharic acids and lactones from the degradation of hemicellulose - mainly, *m*-saccharic and *p*-saccharic acids that indicate the presence of galactan in wood. However, glucosaccharic acid – a possible by-product from transformation of glucose and mannose - was never found in black liquor (Van der Klashort, 1988; Sivasankarapillai and McDonald, 2011). Kraft lignins exhibit variation in abundance and type of functional groups in molecules of different molecular weights. It has been found that the content of methoxy groups is directly proportional, while the content of phenolic hydroxyls and carboxylics is inversely proportional, to decreasing molecular weight of a molecule. It was proposed that low solubility of highly molecular components bearing no free carboxylic groups came from numerous hydrogen bonds limiting access for organic solvents. Thus, carboxylic groups affect the reactivity of a lignin (Wooten et al., 1988; Singh and Joshi, 1994; Santana et al., 1996; Sanjuan et al. al, 1999). In order to utilize lignin as a substitute for phenol, it is necessary to depolymerize lignin by oxidation, fusion, demethylation, pyrolysis or hydrogenation (Xinnan et al., 1995; Figueiredo, 2018). The modified lignin is a convenient raw material for adhesives, resins, dispersants, elastomers, foaming agents and eluting carriers (Wooten et al., 1988; Bučko, 1997; Vasquez et al., 1997; Gargulak and Lebo; Lora and Glasser 2002, Cazaku et al. 2004; Behin, 2016; Ružinská, 2010, 2018a,b). Structure of lignin, especially phenylpropane units, gives wide way for a variety of approaches that make lignin useful in the synthesis of phenol-formaldehyde resins. These are:

- Partial substitution of phenol with unmodified lignin (Lynch, 1987),
- Partial substitution of phenol with modified lignin (Dolenko and Clarke, 1978; Olivares et al. 1995; Shimatano and Sano, 1995; Xinnan et al., 1995, Behin, 2016).

3. EXPERIMENTAL PART

In the experimental part of the attention modifier treatment of origin kraft black liquor, which were subsequently applied to the reciprocal laboratory prepared adhesive mixtures. The modification reactions of the original sulfate liquors were carried out in order to increase the reactivity of the original kraft black liquor (as industrial lignocellulose waste) and to better incorporate it into the mixed polycondensate matrix of the formed PF adhesives. Prepared adhesive mixtures of resin (with reciprocal compensation PF resin 10 – 60 % wt.) was used in the laboratory preparation of wood materials – three layers plywood. Subsequently, the selected characteristics of the treated suplphate liquors as well as the experimentally prepared of innovative wood materials – plywood.

3.1. Determination of selected characteristics of origin and modified sulphate liquors

Sulfate liquor had been collected in a paper mill from the process line past the evaporator and characterized. The following properties were evaluated:

- Solid content was determined gravimetrically according to standard EN 10082,
- Dynamic viscosity was determined on a rotational viscometers Rheotest 2,
- pH value was determined on a digital pH-meter, type OP-208/1,
- Density was determined pycnometrically at 20 °C,
- Titration determination of Na_2S and NaOH content – as Na_2O was determined by analytical method (Boruszewski et al., 2012),
- Conductometric determination of Na_2CO_3 and NAOH was determined – as Na_2O (by SCAN-N-33 instrumental method),
- Lignin content by the Savard method (Olivares et al., 1995) involves 16-hr hydrolysis of lignin in 67 % sulfuric acid at ambient temperature followed by dilution and 5-hr refluxing. Afterwards, the suspension is cooled to room temperature, filtered off and dried under vaccum for 5 h.
- Reducing compounds was determined by the Bertrand method - the amount of reducing agents is most often converted to D-glucose (Bučko, 1997).

3.2. Modified treatment of waste sulphate liquor

Sulphate lignocellulose waste (kraft black) liquor is characterized by relatively low reactivity of formaldehyde which does not required to be incorporated into a polymeric matrix of PF adhesive. It is therefore necessary to modify the reactivity of the original kraft liquors following reactions: methylolation and acidification kraft black liquors. The other modification reactions to increase the reactivity of waste sulphate liquors are: hydroxymethylation and demethylation. The basis of methylated treatment was the reaction of formaldehyde with waste sulphate liquor at room temperature for 72 hours (Dolenko and Clarke, 1978; Ružinská, 2018b). The way was prepared methylated kraft liquor, which was further applied to the adhesive mixtures with PF adhesive with a gradual reciprocal refund adhesive from 10 to 60 % wt. The second variant of the modification adjustment was in the previous post-treatment procedure prepared acidified sulphate liquors followed by a strong mineral acid with intensive stirring to value pH = 5. The third variant represents the modification of sulphate liquors, which is the application of the demethylation reaction (Olivares, 1988) and subsequently modified by Ružinská et al., 2018b. The principle of this modification is the isolation of sulphate lignin from sulphate liqurors. Further, dispersion of the sulfate liquors and the action of demethylating agents in the organic acid medium followed by precipitation with mineral acid. The last fourth variant is the modification of sulphate liquors by the hydroxymethylation reaction (Shimatani and Sano, 1995) and subsequently modified by the authors Ružinská et al., 2018b. The basic principle of the application of sulphate liquors to phenolformaldehyde adhesives is their ability in the

alkaline environment to primarily form hydroxymethylated structures by the effect of formaldehyde in the sense of the lederer-manass reaction.

3.3. Preparation of adhesive mixtures

Adhesive mixtures to be applied in the preparation of plywood (PG), which were prepared with the reciprocal replacement of the original fenolformaldehyde adhesive (PF) and modified liquors gradually from 10 to 60 % by weight. Similarly, the reference test were used units - only with PF adhesive glue ahesives consisting only of origin kraft black liquors.

3.4. Laboratory preparation and evaluation properties of plywood

Experimental prepared 5 variants of three plywood (PG) mixed with the application of adhesive mixtures:

- variant 1 ("p"): PG with the application of the original untreated kraft liquors (from 10 to 60 % wt. reciprocal replacement of PF adhesive),
- variant 2 ("metyl"): PG with the application methylated liquors (from 10 to 60 % wt. reciprocal replacement of PF adhesive),
- variant 3 ("acid"): PG with application acidified liquors (from 10 to 60 % wt. reciprocal replacement of PF adhesive),
- variant 4 ("hydrox"): PG with application hydroxylamethylated liquors (from 10 to 60 % wt. reciprocal replacement of PF adhesive),
- variant 5 ("demet"): PG with application demethylated liquors (from 10 to 60 % wt. reciprocal replacement of PF adhesive).
- Reference samples: variant 0 (PG with the application only 100 % PF adhesive) and variant 100 (PG with the application only 100 % origin untreated or modified sulphate liquors – variants: 2, 3, 4, 5).

Various variants of three-ply plywood beads with the application of adhesive mixtures (with origin or modified sulphate liquors) were prepared experimentally under the following conditions:

- pressing temperature: 150 °C
- manometric pressure: 7.6 MPa
- specific pressure: 1.8 MPa
- pressing time: 4.5 minute
- material: beech veneer (1.8-1.8-1.8 mm)
- veneer humidity: 6.58 %
- area of the pressed material: 1225 mm^2.

After pressing, the plywood was conditioned for 14 days (at 20 ± 2 ° C and 65 ± 5% humidity) and their selected mechanical properties were evaluated:

- Evaluation of shear strength in dry condition according to standard EN 314-1,
- Evaluation of shear strength after exposure EW test in according to EN 314-2.

4. RESULTS AND DISCUSSION

In the experimental part of our research, we focused on the study of modification reactions of sulphate liquors to increase its reactivity and better incorporation into the mixed polymeric lignin-phenolformaldehyde matrix in the process of crosslinking of the proposed and prepared adhesive mixtures. We first examined and evaluated the selected characteristics of the original untreated sulfate liquors, which we obtained as a waste material from the pulp and paper industry in the sulphate process of pulp preparation.

We have evaluated the characteristics of the original black sulfate liquors in order to obtain data to evaluate the effect of subsequent modification reactions to increase the reactivity of this waste product. The results obtained from the determination of the individual characteristics of origin kraft black liquors are given in Table 1.

Table 1: The selected characteristics of sulfate black liquor

Specification of evaluated characteristics	Value
Solid content (%)	54.03
Dynamic viscosity (20°C) (mPa·s)	1245
pH value	13.65
Density ($g \cdot cm^{-3}$)	1.319
Na_2S as Na_2O ($g \cdot dm^{-3}$)	3.91
NaOH as Na_2O ($g \cdot dm^{-3}$)	5.74
Na_2CO_3 as Na_2O ($g \cdot dm^{-3}$)	31.98

Source: own measurement by the author

Due to the low reactivity of sulphate lignin (from black liquors) towards formaldehyde and subsequent insufficient incorporation into polymeric matrix upon polycondensation, the following modifications may be performed: methylation, acidification, hydroxymethylation and demethylation. Procedures for implementing modifying reactions are discussed in chapter 3.2. The efficacy of the modification reactions was evaluated with the content of lignin and the amount of reducing substances in the modified sulphate liquors and compared them with origin kraft black liquors. The evaluated results of the lignin content (as determined by the Savard method) are shown in Table 2.

Table 2: Savard lignin content in the tested samples

Sample designation	Type of sample	Savard Lignin (%)
p	Origin sulfate black liquors	23.10
metyl	Methylated sulfate sulphate liquors	74.63
acid	Acidified methylated sulfate liquors	76.39
demet	Demethylated lignin	71.87
hydrox	Hydoxymethylated lignin	75.07

Source: own measurement by the author

However, the main problem is reactivity of lignin towards by-products of acidic degradation. In strong acidic environment at elevated temperatures, secondary depolymerization of lignin followed by elimination and condensation reactions occurs, so that the structure and functional group abundance are affected. Formation of new chromophore groups (e.g. methylquinones) results in dark colour of products. Drawback of the procedure is degradation of monosaccharides present in hydrolysates to 2-furaldehyde, 5-hydroxymethyl-2-furaldehyde etc., so secondary condensation with lignin may occur (Bučko, 1997; Boruszewski et al., 2012). Despite the accompanying phenomenon of that determination Savard's method of determining lignin content in test samples of both original and modified sulphate liquors is a comparatively simple method of determination. However, the lignin values in the sulfate liquors present objectively verifiable values which confirm the increase in reactivity of the sulfate leachates by the modifying reactions (Bučko, 1997; Ružinská, 2010). From the measured and evaluated data concerning the application of modifying treatments to the original sulphate liquors (methylation, acidification, hydroxymethylation and demethylation), it is clear that the

modification reactions mentioned above resulted in an increase in the sulphate lignin present in the treated liquors. Most of the increase in reactivity was recorded in the acidified variant, then the hydroxymethylated (hydrox), methylated (methyl), demethylated (demet) variants. The lowest percentage of lignin content determined by Savard was observed in the original untreated sulfate liquors. We also evaluated the reactivity of sulphate liquors from the point of view of the content of reducing substances. Products of alkaline degradation of saccharides exhibit reducing activity (Bučko, 1997). Reducing compounds content in the tested samples was shown in the Table 3.

Table 3 Evaluation of reducing compounds in the tested samples

Sample designation	**Type of sample**	**Reducing compounds ($mg \cdot l^{-3}$)**
p	Sulfate black liquor – origin unmodified	0.0433
metyl	Methylated sulfate black liquors	0.0654
acid	Acidified sulfate black liquors	0.1537
demet	Demethylated sulphate liquors	0.0486
hydrox	Hydoxymethylated sulphate liquors	0.0592

Source: own measurement by the author

As the data in Table 3 indicate, regardless of the sample type, the content of the reducing compounds was at very low level. However, studied adhesive systems (Ružinská, 2018b) based on sulfate liquor or methylated sulfate liquors exhibited high quality of the formed bond lines which may possibly be associated with substantial content of reducing compounds (0.1537 $mg \cdot l^{-3}$). The highest content of reducing substances was recorded in the acidified sulphate liquors and subsequently in the methylated liquors. In order to verify the reactivity enhancement for better incorporation into the polymer matrix of mixed adhesives, we evaluated the selected adhesive properties in the experimentally prepared three-ply plywood. We assumed that by increasing the reactivity of sulphate liquors by modifying reactions, adhesion and hence shear strength in the variants of modified sulphate liquors can be increased as compared to the original kraft black sulphate liquors. In order to determine the effect of modifying reactions, we designed and assembled 5 variants of adhesive mixtures (chapter 3.3) and we applied them to the preparation of three-ply plywood (under the conditions given in chapter 3.4). Subsequently, we evaluated the adhesion properties of the prepared plywood in the shear strength tests - under dry conditions and after the EW-100 exposure test according to standards EN-314-1 and EN3014-2. The results of the shear strengths of the variable variants of the experimentally prepared plywood were evaluated in the STATISTICA program and are graphically illustrated in the Figure 1 and the Figure 2.

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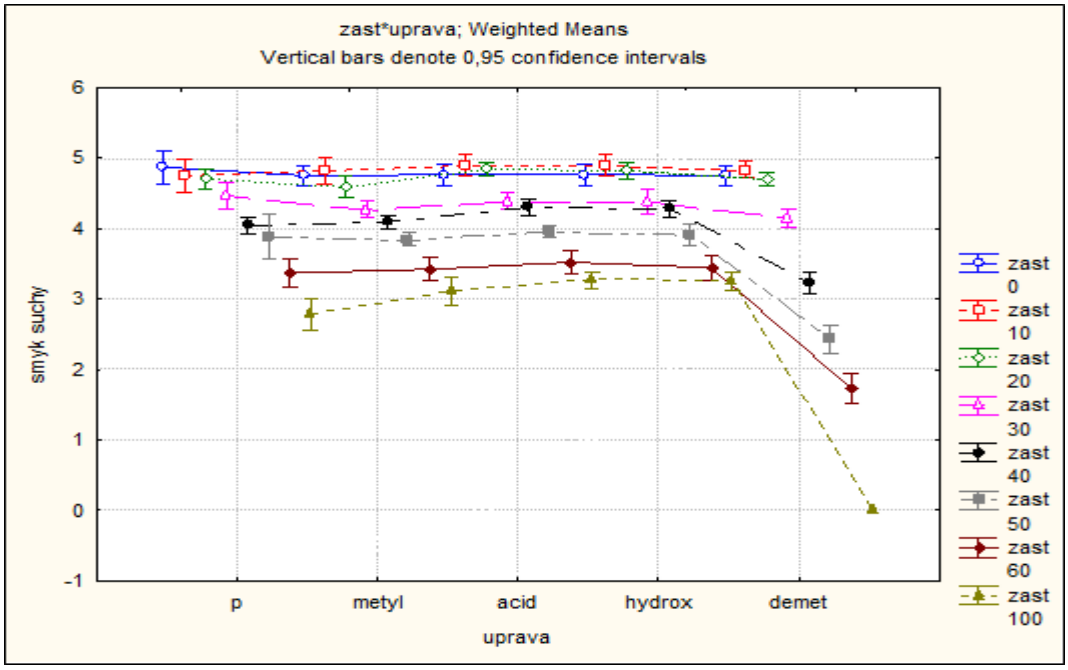


Figure 1. 95 % Confidence intervals the average of shear strenght by dry conditon (MPa) for laboratory prepared plywood with varying reciprocal replacement of PF adhesive with sulphate liquors (from 10 to 60 % wt.)

notes: smyk suchy – shear strenght by dry condition "uprava" – modified treatment, p – origin kraft black liquor (variant I), "metyl" – methylated sulphate liquor (variant II), "acid" – acidified sulphate liquor (variant III), "hydrox" – hydroxylated sulphate liquor (variant IV), "demet" – demethylated sulphate liquor (variant V), "zast" – reciprocal replacement (10, 20, 30, 40, 50, 60 % wt., reference sample: 0 and 100 % wt.)

Source: author

From the presented results of dry shear strengths (Figure 1) in experimentally prepared plywood, it is clear that all prepared variants of the plywood with the application of modified mixture polycondensate adhesives have achieved comparable results to that of the reference sample - Variant 0 (application of pure pure PF adhesive without sulphate liquors) but only to reciprocal refunds up to 30 – 40 % wt. Individual variants of prepared plywood have shown that adhesive joints are comparable in reciprocal replacement of toxic commercial PF adhesive with sulphate liqiours as follows: highest dry shear strengths were recorded with a PG variant with the application of acidified sulphate liquors, where they can reciprocally replace up to 40 % wt. commercial PF adhesive. Other in turn are PG with a methylated, hydroxymethylated and demethylated sulphate liquors, where 30 % wt. is possible reciprocal replacement of commercial phenolformaldehyde adhesive.

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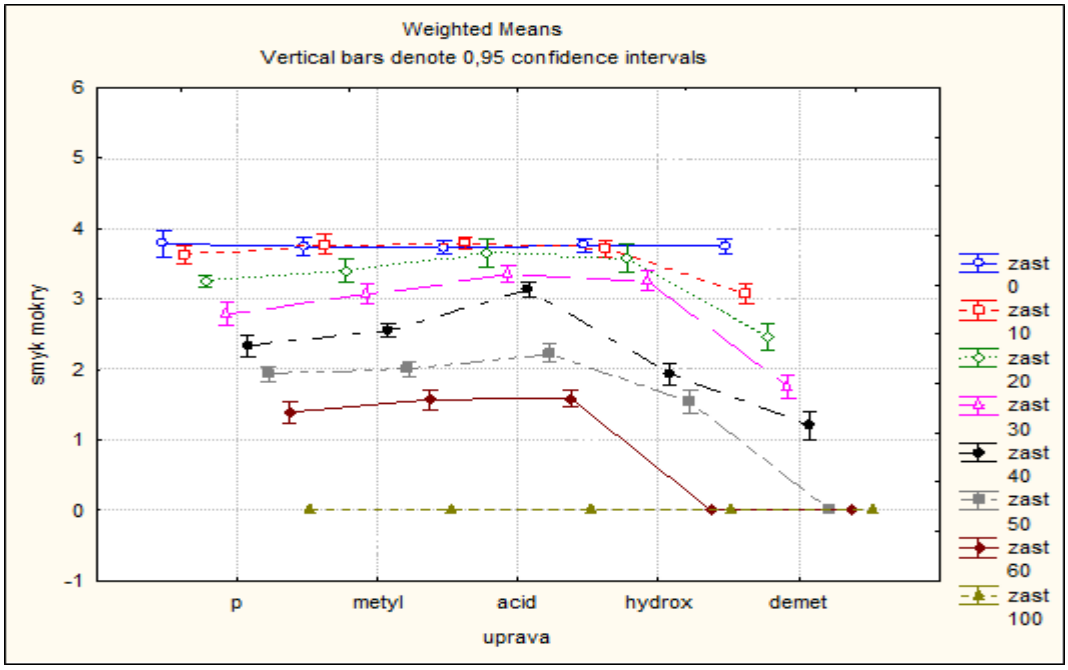


Figure 2. 95 % Confidence intervals the average of shear stress by exposition test EW 100 (MPa) for laboratory prepared plywood with varying reciprocal replacement of PF adhesive with sulphate liquors (from 10 to 60 % wt.)

notes: smyk mokry – shear stress by exposition test EW100 "uprava" – modified treatment, p – origin kraft black liquor (variant I), "metyl" – methylated sulphate liquor (variant II), "acid" – acidified sulphate liquor (variant III), "hydrox" – hydroxylated sulphate liquor (variant IV), "demet" – demethylated sulphate liquor (variant V), "zast" – reciprocal replacement (10, 20, 30, 40, 50, 60 % wt., reference sample: 0 and 100 % wt.)

Source: author

Presented results of shear strength of plywood prepared under conditions after the EW100 exposure test (Figure 2), that comparable results with variant 0 achieved individual variants of PG only 2 variants: one with application of acidified sulphate liquors to 40% wt. reciprocal substitution and the second variants with methylated and hydroxymethylated liquors up to 30 % by weight substitution of the original commercial PF adhesive. PG with demethylated sulphate liquors achieved comparable results with variant 0 only up to 20 % wt. reciprocal replacement of PF adhesives with treated waste liquors. From the evaluation of the shear strengths of the experimentally prepared plywood with the application of the original, unmodified kraft black sulphate liquors, it has emerged that even such a waste product is useful in the preparation of ecologically acceptable sulphate liquors and also in the reduced reactivity of these waste liquors (due to the relatively low content of lignins) of the substances yielded comparable adhesion strengths to reciprocal substitution of 20 % by weight under dry conditions and also after the EW-100 exposure test.

5. CONSLUSION

The goals of our research was to propose and prepare innovative environmentally acceptable products with a significantly reduced content of pollutants (phenol, partially formaldehyde) reciprocal replacing these toxic ingredients and utilizing the potential treatment of industrial waste from pulp and paper industry. At present organic components of kraft black sulphate liquors are involved in the regeneration cycle as carriers of energy and carbon necessary for the reduction process of boiling of cooking solution, which means only a partial energy use, but not a full material recycling (or recovery) of the resulting waste liquors generated by the

sulphate pulp preparation process. For evaluation of selected characteristics of origin kraft black liquors and modified sulphate liquors it is clear, that the modification reactions resulted in an increase in the sulphate lignin present in the treated liquors. Most of the increase in reactivity was recorded in the acidified variant. Also the content of reducing substances was recorded in the acidified sulphate liquors variant. The increase in reactivity by modifying treatments has been shown to be the most important in this variant (acid – acidified sulphate liquors), with the best adhesion bonds - the highest values of shear strengths under dry conditions and even after the EW100 exposure test. Reciprocal substitution achieved by 40% by weight. was prepared for significant material recovery of waste liquors, preparation of adhesive mixture with a significant ecological aspect (replacement of toxic components) and economic savings of expensive commercial PF adhesives (40 %). The proposed modifications of sulphate liquors have shown that, based on the results of the research, it is possible to effectively apply the black liquors s to the wood materials - plywood. In this way, we will achieve a significant recovery of the industrial waste (lignocellulosic) from the point of view of material recycling and, at the same time, obtain reciprocal substitution of problematic (toxic components - as phenol and partial as well as formaldehyde) in commercially produced polycondensation PF adhesives, improving the hygienic characteristics so that they are environmentally acceptable adhesive mixtures, and also innovative wood materials. The results of our research have shown that we need to focus again on the recycling and re-use processes of pulp and paper pulp sulphate processes. The resulting sulfate liquors as industrial lignocellulosic waste are a valuable source of raw materials for use in innovative wood materials, needed for many industries as well as for end customers.

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ON INTERNATIONAL EXPERIENCE OF ESTABLISHING GROWTH POLES

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ABSTRACT

Competitive advantages are distributed unevenly in the country's economic space, resulting in regional inequality. The regional state policy should be aimed at greatest possible smoothing of the regions' socio-economic development levels. Scholars in the field of regional economics analyze effectiveness of various approaches to territorial management, intended to smooth intra- and interregional differences in terms of monetary (financial flows) and non-monetary (quality of life) indicators. Among the theories offering a solution to this problem is the growth poles theory. It is based on the assumption that growth occurs unevenly in economic space: it is concentrated in certain areas and subsequently, thanks to the "spreading" mechanisms, it covers the entire economy. Growth poles theory proponents believe that limited resources should be invested in industries/agglomerations more capable of growth and development than others. Through interaction mechanisms between economic entities, growth impulses are transmitted to other industries/agglomerations. As a result, growth poles "pull" the rest of the economy up to their own level. The growth poles theory has been developed by a number of scholars, in addition, developed and developing countries have accumulated considerable practical experience in the implementation of the concept. The purpose of this article is to analyze the practical experience of territorial management based on the growth poles theory accumulated since the beginning of the XXI century. In the first part we will focus on the growth poles theory evolution and its critical understanding. In the second part we will describe the practical experience of a number of states in the growth poles theory application to economic systems management. In the third part, we will demonstrate how the growth poles concept can become an integral part of the strategy for spatial development of the territory (in particular, the region) along with other concepts of spatial economics.

Keywords: *growth pole, spatial developement, spatial economics, strategy*

1. INTRODUCTION

The purpose of this article is to analyze the practical experience of territorial management based on the growth pole theory accumulated since the beginning of the XXI century. In the first part we will focus on the growth pole theory evolution and its critical understanding. In the second part we will describe the practical experience of a number of states in the growth pole theory application to economic systems management. In the third part we will demonstrate how the growth pole concept can become an integral part of the strategy for spatial development of the territory (in particular, the region) along with other concepts of spatial economics.

1.1. Literature Review

We shall note that there exists a broad literature on growth pole theory. A number of papers, such as (Perroux, 1970; Boudeville, 1966; Aydalot, 1965; Darwent, 1969; Lasuen, 1969), provide a theoretical basis of the theory. Other papers develop a theory further (Richardson, 1975; Thomas, 1975; Campbell, 1972) or criticise it (Mønsted, 1974). The sufficient amount of literature is dedicated to deciding whether certain object(s) can be considered as growth pole(s) (Adams-Kane et al., 2011; Magomedov, 1998; d'Hauteserre, 1999; Cristea, 2013; Eikeland, 2014; Ehinmowo, 2010; Van Den Berg et al., 1996). Finally, there are papers assessing practical experience of implementing the growth pole strategy in different countries (Conroy, 1973; Kinsey, 1978; Ryder, 1990; Ukrainskiy, 2011; Toy et al., 2016; Speakman et al., 2013; Serra, 2003; Christofakis et al., 2011; Growth Poles: The Next Phase, 2013). We would like to mark out the two-part article by British scholar John Parr (Parr, 1999a; Parr, 1999b). Parr's paper summarises practical aspects of implementing growth pole theory in both developed and developing countries during the XX century. We could not, however, allocate any papers, that would have summarised and analysed practical experience of implementing growth pole strategy in XXI century accumulated to date. That fact has determined the purpose of the present article.

1.2. Growth Pole Theory Evolution

1.2.1. Origin and Main Theoretical Framework

The growth pole theory was established in the middle of the XX century by a French scholar François Perroux (Parr, 1999a; Serra, 2003). Perroux's main idea was that growth occurs unevenly in economic space; it tends to concentrate in certain areas (poles, points etc.); later thanks to "spreading mechanisms" it covers the remaining areas (Perroux, 1970; Ukrainskiy, 2011). Jacques Boudeville and a number of subsequent scholars transformed a concept by moving "growth poles" from abstract economic space to geographic space; it made a noticeable contribution to the possibility of practical implementation of growth pole theory in territorial management (Boudeville, 1966; Parr, 1999a). Papers such as (Aydalot, 1965; Darwent, 1969; Lasuen, 1969) have also provided a theoretical basis of the theory.

1.2.2. Growth Pole Theory: Main Contributors and Ideas

We propose, upon regarding (Granberg, 2004; Serra, 2003; Parr, 1999a; Richardson, 1975; Thomas, 1975), that an evolution of growth pole theory would be presented in a following sequence (*see Table 1*).

Table following on the next page

Table 1: Growth Pole Theory: Main Contributors and Ideas

Decade	Main Contributors	Main Idea
1950s	Perroux	Growth poles as attraction areas for economic growth in abstract "field of forces".
1960s	Perroux, Boudeville, Aydalot, Darwent, Lasuen, Pottier	Development poles and growth poles in geographical space. Axes of growth as mechanisms of spreading growth.
1970s	Parr, Richardson, Thomas	Growth pole spillovers and growth-pole-induced technological change in regional economics.

From then on, theory itself is considered relatively formed – papers are devoted not to developing theory but to its critical understanding. Some scholars, like e.g. (Cristea, 2013), seek to classify growth poles; some compare it to other spatial concepts (Ukrainskiy, 2011; Akpadock, 1993). But main amount of papers deals with practical experience of implementing growth pole strategy. Among such contributions is an abovementioned paper by J. Parr (Parr, 1999a; Parr, 1999b).

1.2.3. Critical Understanding of Growth Pole Theory: John Parr's Contribution

British scholar John Parr in (Parr, 1999a; Parr, 1999b) summarises practical aspects of implementing growth pole theory in both developed and developing countries during the XX century. He expresses, in particular, his view on the following points:

- theory's framework (Parr, 1999a);
- objectives for implementing the strategy: reviving a depressed area; encouraging regional deconcentration; modifying the national urban system; attaining interregional balance (Parr, 1999a);
- characteristic features of the strategy (*see paragraph 2.1 of the present paper*) (Parr, 1999a);
- external effects of growth poles (positive, negative and neutral) (Parr, 1999b);
- reasons for strategy's failure (mainly caused by poor understanding of its nature) (Parr, 1999b).

John Parr's article, being written in 1999, deals, rather obviously, with practical experience accumulated during the XX century. He identifies four stages in history of growth pole strategy implementation and comes to conclusion that the last one (mid 1970s – 1999) is the stage at which strategy is generally rejected. At the same time, practical evidence accumulated since the beginning of the new century suggests that growth pole theory may have seen its revival – there are several examples of quite successful establishing of growth poles in different countries. Hence our main hypothesis is that first two decades of XXI century may present a new stage (stage of revival) of growth pole strategy, with several countries giving it "a second wind". In the next paragraph we are going to examine and analyse that experience (see Figure 1).

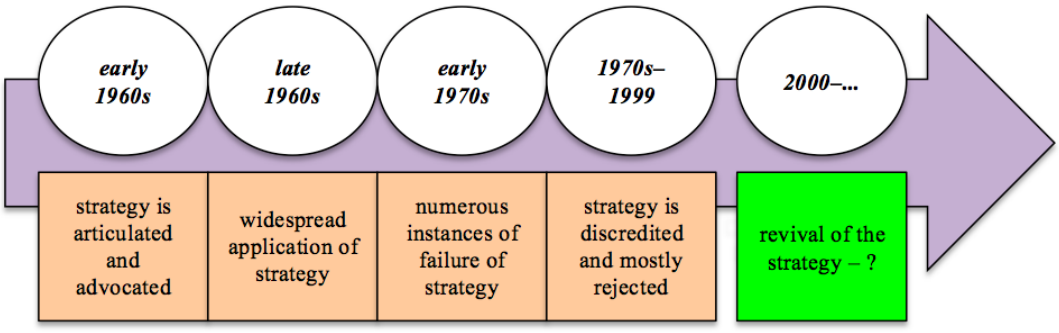


Figure 1: History of Growth Pole Strategy Implementation: John Parr's Point of View and Authors' Hypothesis

2. PRACTICAL EXPERIENCE OF ESTABLISHING GROWTH POLES: XXI CENTURY

2.1. Characteristic Features of the Strategy

John Parr (Parr, 1999a) defined following features as characteristic of any growth pole strategy:

- "encouraging the growth of employment and population within a region at particular locations or planned poles over some specified period" (Parr, 1999a);
- "a definite limitation on the number of locations or centres which are designated as planned poles" (Parr, 1999a);
- "spatial discrimination or selectivity among locations" (Parr, 1999a);
- "a modification of the spatial structure of employment and population within a region" (Parr, 1999a).

Through analysis of the latest literature on the topic we have allocated some other features that may be as well regarded as those characteristic of growth pole strategy:

- growth pole is "an attractive centre for production and service sector" (Toy et al., 2016);
- basic principle is "to support predetermined strategic projects in order to benefit effectively from limited financial source" (Toy et al., 2016);
- growth poles "increase market size so that it becomes profitable for firms to invest" (Speakman et al., 2013);
- "the focus… is on externalities and doing many things at the same time to achieve critical mass" of effects (Speakman et al., 2013).

2.2. Examining Practical Evidence

We have searched for evidence of growth pole theory application to economic systems management according to following criteria:

- growth poles (centres) were created and (or) started to function not earlier than year 2000;
- growth poles were planned (induced) ones – with accordance to Parr's terminology (Parr, 1999a);
- mechanisms and certain outcomes of establishing growth poles were described;
- the project has been already functioning at least for some period of time so results could be assessed.

As a result we can discuss the experience of seven countries: France, Turkey, Madagascar, Greece, Romania, Norway, Nigeria. Table 2 summarises the results of our research: practical experience of each country is described through a set of characteristics.

Table following on the next page

Table 2: International Experience of Establishing Growth Poles in XXI Century

Characte-ristics	France	Turkey	Madagascar	Greece	Romania	Norway	Nigeria
Year(s)	2004-pres. (a).	2014-pres.	2004-2013.	2000-pres. (first stages since 1990s).	Two stages: 2008-2013, 2013-pres.	2002-2003.	1999 (first results in 2000)-…
Previous Experience of Growth Pole Strategy	Unsuccessful (d).	Unsuccessful.	None.	Unsuccessful.	None.	Unsuccess-ful.	None.
Main Objectives of the Strategy	Improving cooperation between business, research institution and state (c).	Decreasing "the differences in socioeconomic development between regions".	Improving business environ-ment.	"Decentrali-zation of development" and "upgrading of the development role of urban centres".	"Increasing the quality of life" and "rehabilitating the urban infrastructure".	Not stated.	"Providing employment possibilities in rural locality".
Financing	Private and public (e).	Public investment program (central budget).	Private-public partnership projects.	Public (state funds along with EU sources).	Public (state funds along with EU sources).	Private-public partnership with a special support from global companies.	Public (central budget).
Hierarchy of Growth Poles	National and international level growth poles (b).	None.	None.	Four-level complex hierarchy.	Growth poles (national) and urban development centres (regional).	None.	None.
Criteria for Determining a Growth Pole	Innovative firms and industries with an ability to become a center of clusterization (c).	Cities with certain population and certain labour force structure, situated in less developed east of the country, and hosting specific infrastructure objects.	Not stated.	Population size; necessary infrastructure, "operation of one or more propulsive activities"; geographical position; administrative significance.	Detailed set of criteria implemented via threshold-system.	None.	None.
Outcomes	Increase in GDP, GRP, new innovative businesses, increased international cooperation (c).	Certain increase in GDP, GRP.	Increase in investment, number of businesses, jobs; better business environ-ment.	Increase in GDP, GRP and both local and regional cooperation.	Increase in GDP, GRP and some other monetary flows.	Extensive renovation process; significant improvement in local employment; growth in population etc.	Shift in labour market structure; creating new infrastruc-ture; overall "enlight-ment in community".
Main Difficulties and Negative Effects	Not stated.	Weak financing and not enough motivation of regional authorities.	Some projects regarded less successful.	Different planning programs with different approaches and definitions along with absence of required supplementary policies.	(During 1st stage:) no clear "understan-ding of how the designated growth poles can contribute to the general development of Romania".	No effective integration between regional and higher level companies; no effective networks or clusters were created.	Increased crime rate.
Source(s) of Information	(a) – (Perrat, 2007); (b) – (Speranskaya, 2007); (c) – (Les Pôles de Compétitivi-té, 2014); (d) – (Ukrainskiy, 2011) (e) – (Teplova et al., 2009).	(Toy et al., 2016).	(Speakman et al., 2013).	(Christofakis et al., 2011).	(Growth Poles: The Next Phase, 2013; Cristea, 2013).	(Eikeland, 2014).	(Ehinmowo, 2010).

Note: GDP – gross domestic product; GRP – gross regional product.

Upon analyzing the experience we may produce several conclusions:

- the experience is mostly regarded as a positive one (there always was a certain increase in monetary and non-monetary socio-economic indicators), though, in all the cases policymakers faced certain challenges (most of them connected with poor financing and poor cooperation between actors);
- in most of the cases country has a previous experience of implementing a growth pole strategy – and always not a positive one;
- not all the objectives were achieved (objectives were mostly connected with decentralisation, improving infrastrucutre and providing employment), but the massive amount of positive outcomes usually was regarded as a sign of the strategy's success;
- main difficulties are connected with weak financing, weak policy-making (e.g. lack of supplementing policies) and ineffective feedback mechanisms;
- main positive outcomes are connected with increase both in monetary (GDP, GRP, income) and non-monetary (e.g. quality of life, level of education, new labour market possibilities) indicators;
- public investment (including, e.g. EU-level programs) seems to be the main source of financial support but private sources are equally desirable (with the possibility of creating private-public partnerships);
- growth poles are mostly cities (urban development centres) of certain size hosting specific infrastructure objects; the actual size and other criteria depend on the level of growth pole hierarchy;
- in the XXI century the strategy was implemented in European (5) and African (2) countries, both developed (2) and developing (5).

3. GROWTH POLE AS AN INTEGRAL PART OF THE STRATEGY FOR SPATIAL DEVELOPMENT

3.1. Strategy for Spatial Development

Regarding the positive experience of countries in XXI century we propose that the growth pole strategy may become an integral part of a strategy for spatial development in nations that face similar problems, that being: intra- and interregional differences in terms of monetary (financial flows) and non-monetary (quality of life) indicators (The World Bank, 2018). The recent examples of such strategies are EU-level strategies:

- The European Regional/Spatial Planning Charter (Council of Europe, 1984) "portrays 'regional/spatial planning' as giving geographical expression to the various policies of society; giving direction to a balanced regional development and the physical organization of space, according to an overall strategy" (Faludi et al., 2012; Council of Europe, 1984);
- one of the features of European Spatial Development Perspective is an advocacy of polycentrism (Faludi, 2006), which may be connected with growth pole strategy;
- Europe 2020 is "a strategy for smart, sustainable and inclusive growth" (Marlier, 2010) giving a certain importance to spatial cohesion (Growth Poles: The Next Phase, 2013).

3.2. Growth Poles, Smart Region and Clusters

The strategy for spatial development shall not rely only on one theory: growth pole concept shall be a part of the strategy along with other spatial development concepts for the multi-conception strategy having better chances of being successfully implemented. We propose that these other concepts may be the following ones:

- smart region concept, which relies on "expanding the concept of "urban smartness" from the usual scale of buildings or urban projects to the regional dimension" (Morandi et al., 2016; Garau, 2015);

- cluster policy, the concept of which "focuses on the linkages and interdependencies among actors in production chain… and innovating" (Roelandt et al., 1999).

Figure 2 shows how the abovementioned concepts may be combined.

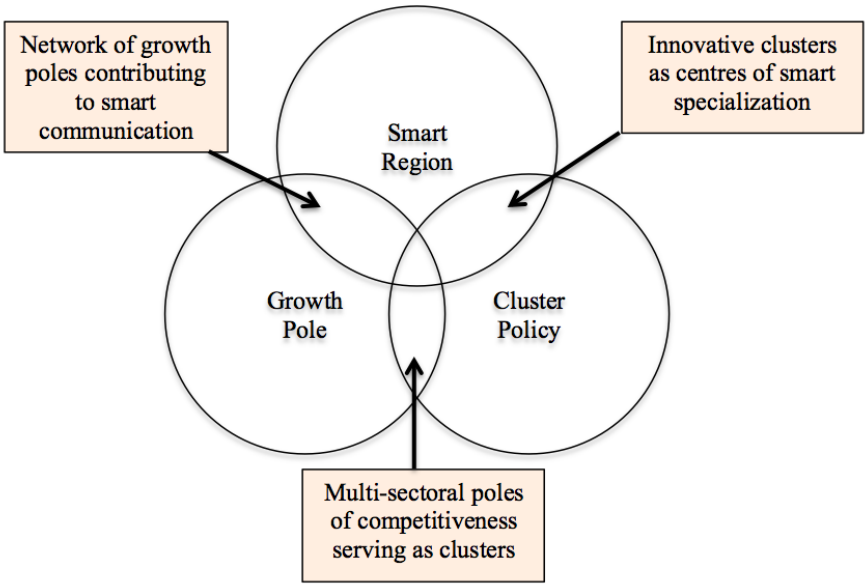


Figure 2: Growth Poles, Smart Region and Cluster Policy in the Strategy for Spatial Development (intersection of three circles presents a spatial strategy itself as a combination of three spatial development concepts)

4. CONCLUSION

We have analysed the evidence from both developed and developing European and African countries in emplementing the growth pole strategy to territorial management in XXI century. Whereas the XX century has seen many examples of rejecting a strategy (Parr, 1999b), the experience of the first decades of the XXI century seems to be something different. In all the cases examined by us the strategy had positive outcomes. The beginning of the XXI century may become a new stage in a history of implementing a growth pole theory to regional planning, serving as a period of its revival. The strong and detailed policies on several levels (national, regional, local) relying on growth poles along with other spatial development concepts may become powerful instruments of smoothing intra- and interregional differences in terms of monetary (financial flows) and non-monetary (quality of life) indicators.

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THE ROLE OF FINANCIAL CONTROL OVER INCREASING THE EFFICIENCY OF USING BUDGET FUNDS

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ABSTRACT

In the context of modern globalization and economic integration financial control is one of the key components for the implementation of important areas of public administration and state policy, which not only serves as the mechanism for carrying out the verification of the accuracy of the financial documenting process, detection of violations in fiscal legislation and financial discipline and notification of such cases, but also as an important instrument for the management of finances and economic processes through it. Financial control is a control system of legislative and executive authorities over all financial entities, i.e. financial activities of the government, enterprises and organizations. Its purpose is to ensure the successful implementation of the state's economic policy, help shape financial resources in all spheres of the national economy and effectively utilize them. Since the importance of financial control has increased dramatically in the modern day, the importance of financial control is also rising considerably. Financial control is a dynamic process that always has new features, and therefore it should hold a firm and decent place at the research object of the science of economics in the long term regardless of the degree of knowledge, especially in transition economies. Financial control is both a crucial part of financial management and a prerequisite for the effectiveness of financial system governance. Under current conditions, organization and implementation of effective state control over a deeper study of the general issues of financing budget expenditures, budget formation and particularly use of budget funds, including the role of financial control in increasing the efficiency of use of budget funds has not been sufficiently studied. This issue is particularly relevant in terms of efficient use of budget funds, improving the quality of governance in the budget sphere and the transition to international standards of budget formation and execution. The article studies and classifies the factors influencing the effectiveness of the state financial control on budget expenditures, and provides directions for enhancing the role of financial control in improving the effectiveness of the use of budget funds. The results obtained from the study provide an objective basis for the assessment of financial control in increasing the efficiency of budget expenditures.

Keywords: *budget funds, efficiency, financial control, modern globalization*

1. INTRODUCTION

The solution of the problem of financial control development makes essential the formation of the state financial control system, which allows to project and implement the mechanism of allocation of state resources to top priorities for society, manage state expenditures, improve supervision, develop various levels of state financial control bodies based on international standards and regulate the interaction between them. It should be borne in mind that financial control is a dynamic process that always has new features, and therefore it should hold a firm and decent place at the research object of the science of economics in the long term regardless of the degree of knowledge, especially in transition economies. Since the importance of financial control has increased dramatically in the market economy, the importance of financial control is also rising considerably. Unlike the administrative domination system, the economic functions of the state in the market economy that are based on the principles of democratic governance are significantly restricted, which stimulates economic freedom, but the acquisition of such freedom should by no means lead to arbitrariness and harmful results.

Therefore, in the context of new economic relations, the importance of the state control over the economy is increasing. Being based on the constitution and relevant legislation, the purpose of the state financial control, which is one of the main forms of financial control, is to directly control the implementation of the state's financial policy, ensuring financial stability in the country, and establishment and use of the state budget and extra-budgetary funds. Currently state financial control is exercised by legislative and executive bodies of the country, financial and tax authorities, treasury system and other state bodies. Treasury and tax authorities play a very important role among those bodies. The financial control system carries out state financial control over the purposeful and efficient spending of the state budget, and extra-budget funds of the purposeful budget funds and budget organizations, as well as the loans received under state guarantee. The state financial supervision is also carried out by control and inspection offices, chief accountancies and financial departments of separate ministries and committees. We believe that there is a need for the restoration, renewal and improvement of the old control system at the stage of globalization of economic development. Improving financial control should, first and foremost, involve the organization and functioning of the most up-to-date controls, the coordination of the control system and increasing its impact.

2. LITERATURE REVIEW

Many world scholars have applied to the study of financial supervision and control over execution of the state budget. The state budget mainly serves to finance the public sector in the economy, which produces public goods and services. The public sector provides a lot of significant services to the community (McKenzie, 1988). It acts as an over-compensating function. That is, it does things that the market economy can not effectively do or does not have enough stimuli to implement. Musgrave and Musgrave (1976) have classified the functions of the public sector as follows:

- resource allocation – provision of social benefits and services;
- income distribution – regulation of wealth or income distribution in society to comply with the principle of fairness;
- stabilization – use of tax policies to achieve high employment, price stability and economic growth.

Delving into the issue of financial control, Oshisami and Dean (1984) argue that since financial supervision is the basis of political power, the control over finances should be reflected in the constitution of all countries in order to prevent the possibility of abuse. In general, the term "control" is one of the basic principles of governance. Control contributes to the efficient utilization of resources to achieve the objectives set out in the defined plan (Lucey, 1996, Ekwonu, 1996). Koontz, Donnel and Wiehrick (1980) also define control in a similar way – as a means to measure and correct the activity of the subordinates in order to ensure that such activity is consistent with the plan. At the same time, they have divided the financial control into three stages: defining standards; determining the quality of the use of such standards; aligning deviations from standards and plans (Koontz, Donnel and Wiehrick,1980). Financial control is one of the basic and essential types of control in the field of public finance management. Financial control ensures economical and efficient use of financial resources taken at real value in order to achieve the assigned goals more effectively (Oshisami, 1992). Ball et al (1999); Bartel (1996); Asselin (1995); Premchand (1989); Hogye (2004); Martinez - Soliman (2003); Sahgal (2001) and Ahsan (1994) stated in their studies that in order to increase the efficiency of financial control over public funds the financial supervision institution must be isolated from other administrative institutions, in other words, it should be an independent institution. Financial management is as old as the government (McKinney and Howard, 1979). It is one of the main functions of managing the state, which carries the leader towards the

society. In addition, it is the only function that affects every servant. There is a link between financial transparency and the required level of management (Sutcliffe, 2002) and financial transparency positively affects macroeconomic stability (Idasa, 1998). In particular, in order for effective budget control and regulation of monetary transactions, the government should have a proper working accounting and reporting system (Asselin, 1995). Finances and financial control are closely linked to the state budget. The state budget plays a significant role in government management and planning (Mckenzie, 1998). Each government decision has a budgetary nature. In particular, the decision-making process pretty much entails allocation of scarce resources to alternative uses (Stedry, 1979). The state budget is a financial plan covering government spending and the sources of funding thereof (Mckenzie, 1998), or the most valuable and authoritative project or map of resource allocation (Pollack, 1999). The budget is a process that reflects the purpose and expenditure of financial resources over a period of time (Akinolaand Asein, 1998). The budget is a plan of spending an amount and/or monetary value for a future period. It usually demonstrates planned or targeted income and the planned or targeted costs (Pogue, 1989). The importance of budgeting is increasing with increasing demand for power distribution between legislative and executive bodies (McKinney and Howard, 1979, Premchand, 1989 and Wapmuk 2001). The budget acts as a bridge between legislative and executive bodies (Wildavsky, 1979). Budget is the only and most important manifestation of government policies that provide for the implementation of programs and plans set by the government's legal entities. It is also a control tool for the parliament and a key guiding document that represents the responsibility before the taxpayers. Budgeting is a dynamic and continuous process. It is a cycle and it has four phases: planning and preparation, legislative review, execution and audit (McKinney and Howard, 1979 and Hendrick and Forrester, 1999). The execution of each budget is also an executive responsibility (Burkhead, 1959). Financial control over the use of budget funds is absolutely necessary. Spending of the allocated financial resources for the intended purposes and the legitimate activities of funds are checked during financial control (Knighton, 1979). At the same time, due to the expenditure limitation, financial control focuses on full compliance of spending with the expenditure plan and efficient use of financial resources. The distribution of financial resources plays an important role in fulfilling the functions by the political authorities. For this reason, supervision in accordance with the norms is not only important to guarantee the effective utilization of public funds, but also to force the government and the authorities in general to be responsible in their actions (Speck, 2003). The role of financial reporting in financial supervision is expressed as a key element of the responsibility of public institutions (Henley et al., 1993).

3. DATA AND METHODOLOGY

The data have been collected from the State Statistical Committee and the website of the Ministry of Finance of Azerbaijan. There are numerous established and stable relations between various economic indicators in economics. The dependences between the economic indicators in economic systems are not functional, they are correlation type dependences. Detection, evaluation and analysis of such dependences, including the construction of mathematical expressions of dependences and assessing their parameters are one of the key sections of econometrics. If a change in one of the economic indicators will lead to a change in the distribution of the other, then such dependency is statistical and it is called correlation dependence. This type of dependence is expressed as:

$$M\,(y/x) = f(x)\ (1)$$

and is called regression function of Y on X. In this case, X is a non-dependent variable or regressor, and Y is a dependent variable.

Research is called double regression when learning the dependence of two RDs. Based on the above considerations, it can be concluded that the linear regression (theoretical linear regression equation) means the linear function of the dependent variable y between x. The expression:

$$Y = \beta_0 + x\beta_1 + \varepsilon_i \quad (2)$$

is called the theoretical linear regression model; β_0, β_0 are the theoretical parameters of the regression (theoretical ratios) and ε_i is the random displacement.

4. CURVE MODELS

One or more different models for the evaluation of the curves can be chosen. Curves can be selected according to the data distribution, scatter graph. But at the same time, the attention is mainly focused on the compliance and reliability features of the statistical indicator model when finding the parameters with the least squares method (LSM). The adapted R-squared indicates the model's accuracy, and its value is between 0 and 1. The accuracy of the calculation increases as the result approaches 0. t-statistical measures the significant volatility of the model. It specifies the degree of compatibility of the variable to the model. t-statistical should be greater than 2, so that the coefficient is considered a reliable indicator. A greater t-statistical indicates that the variable is more significant in the equation. F-statistical indicates the accuracy of the equation used in model. A greater F-statistical means a more reliable model. F-statistical should be greater than 4 for the model to be considered acceptable. The probe (F-statistical) indicates the probability that the model is wrong.

The following equation models are available.

Linear	–	Y = b0 + (b1*X)	where b0 is a constant, b1 is regression coefficient for free X. The range is modeled as X linear function
Logarithmic	–	Y = b0 + (b1*ln(X))	where ln () is a natural logarithmic function
Inverse	–	Y = b0 + (b1/X).	
Quadratic	–	Y = b0 + (b1*X) + (b2*X**2)	where ** is the exponentiation operator. If b2 is positive, then the curve is rising, if it is negative, the curve is downsloping. Can be used for modeling of increasing or decreasing ranges.
Cubic	–	Y=b0 + (b1*X) + (b2*X**2) + (b3*X**3)	If b3 is positive, then the curve is rising, if it is negative, the curve is downsloping.
Exponentiation	–	Y = b0*(X**b1) or ln(Y) = ln(b0) + (b1*ln(X))	If b0 is positive, then the curve is rising, if it is negative, the curve is downsloping.
Power	–	Y = b0*(b1**X) or ln(Y) = ln(b0) + (ln(b1)*X)	If b0 is positive, then the curve is rising, if it is negative, the curve is downsloping.
S-shaped	–	Y = e**(b0 + (b1/X)) or ln(Y) = b0 + (b1/X)	where e is the basis of natural logarithm. If b1 is positive, then the curve is rising, if it is negative, the curve is downsloping.

Logistic	–	Y = 1/(1/u + (b0*(b1**X))) or ln(1/y-1/u) = ln (b0) + (ln(b1)*X)	where u is the upper boundary, limit of the price, the indicator. If b1 is negative, then the curve is rising, if it is positive, the curve is downsloping.
Growth	–	Y = e**(b0 + (b1*X)) or ln(Y) = b0 + (b1*X)	If b1 is negative, then the curve is downsloping, if it is positive, the curve is rising.
Exponential	–	Y = b0* (e**(b1*X)) or ln(Y) = ln(b0) + (b1*X)	If b1 is negative, then the curve is downsloping, if it is positive, the curve is rising.

5. CURRENT STATE OF STATE BUDGET EXPENDITURE UTILIZATION IN AZERBAIJAN

Increasing budget revenues and optimizing expenditure are important macroeconomic priorities of all states. In the current systemic crisis, these issues, particularly the efficient, cost-effective and effective use of state budget expenditures, are of particular importance. In the medium and long term, in order to optimize the budget framework and increase tax revenues from the non-oil sector in the overall structure of budget revenues in Azerbaijan, it is important that the fiscal sustainability issues are assessed in the context of the overall macroeconomic framework, as well as by taking into account the principle of unchangeable real costs defined in the "Long-term strategy on the management of oil and gas revenues". It would also be a positive step to use the fiscal gap indicator to estimate the actual long-term view of the economy in terms of natural resource dependency. This parameter is an indicator of the ratio that is calculated by taking into account priorities of the current and future fiscal policy on the long-term and bringing to the real value between the review and the revenue and expenditure of the state budget. This indicator is appropriate for measuring fiscal sustainability. The global financial crisis does not shy away from Azerbaijan, which is closely integrated into the global economic system. Measures taken in Azerbaijan with regard to financial control provide maximum protection against these variables. Normalization of some costs in the budget, strengthening of financial administration and a more responsible approach are the main principles of an efficient and cost-effective approach to the use of public funds. And serious financial discipline and purposeful saving are financial sources too.

Table 1: State budget revenues

	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017
Total revenues	**316.9**	**714.6**	**2055.2**	**11403.0**	**15700.7**	**17281.5**	**19496.3**	**18400.6**	**17498.0**	**17505.7**	**16516.7**
Natural persons' income tax	22.8	94.0	317.4	590.2	715.7	813.0	859.7	980.3	982.5	1145.7	1040.3
Profit (income) tax of legal entities	86.3	125.9	355.4	1429.9	2134.0	2252.0	2374.8	2302.7	2211.1	1983.2	2285.9
Land tax	0.8	6.7	15.3	35.3	35.3	30.6	33.1	35.4	48.7	50.3	50.4
Property tax	0.9	11.8	40.4	101.8	103.9	105.1	125.1	141.3	148.2	174.7	178.6
Value Added Tax	30.6	190.8	599.9	2082.5	2222.7	2366.9	2710.0	3119.6	3454.7	3623.5	3668.6
Excise tax	17.7	22.4	141.0	514.9	480.2	531.5	593.3	797.3	647.8	625.1	612.6
Mining tax	0.0	50.4	53.5	130.1	129.8	125.8	121.5	116.2	116.1	110.3	111.1
Taxes related to foreign economic activity	8.9	63.4	205.2	291.8	433.1	592.5	675.2	684.7	934.5	861.2	903.0
Other taxes	62.9	9.0	28.1	90.3	140.6	157.6	161.5	192.7	247.7	457.0	505.7
Other revenues	86.0	140.2	299.0	6136.2	9305.4	10306.5	11842.1	10030.4	8706.7	8474.7	7160.5

Source:www.stat.gov.az

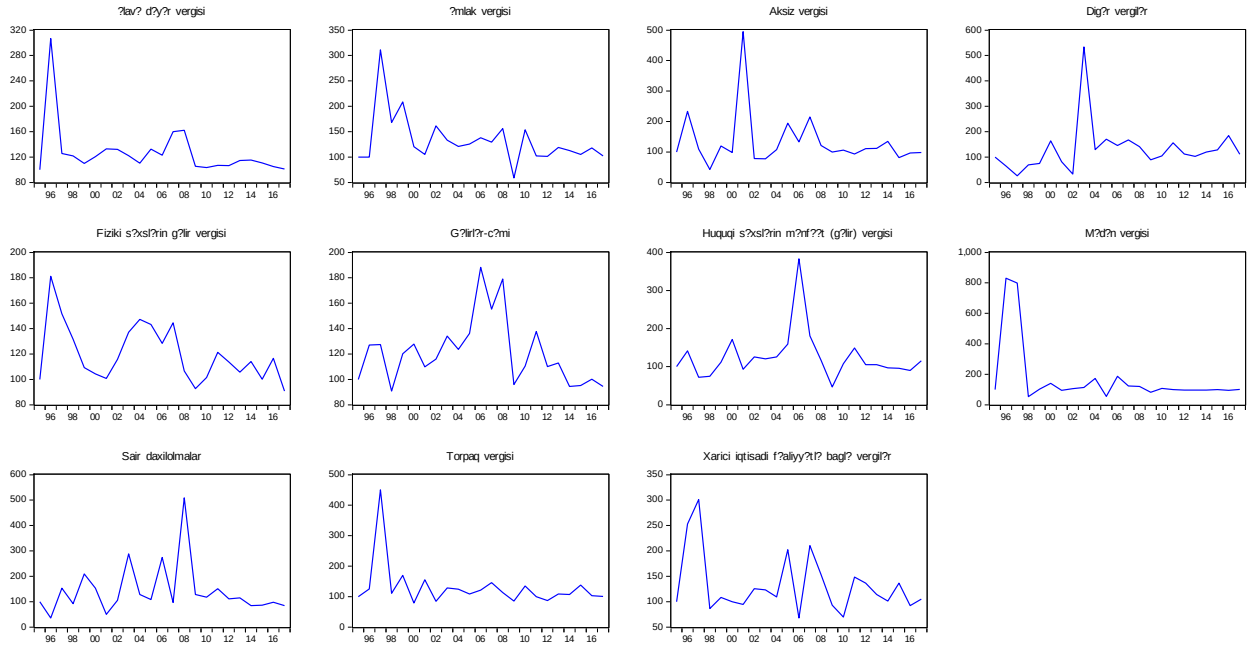


Figure 1: Dynamics of state budget revenues (relative to previous year)

The revenues of the state budget for the studied period of 1995-2017 have increased by 52.12% to 16516.7 million manats. Total revenues have increased by 23.11% in 2017 compared with 2000, 8.03% in comparison with 2005, and 1.49% in comparison with 2010, whereas they have declined by 15.3% in comparison with 2013, 5.6% in comparison with 2015, and 5.5% in comparison with 2016. Similarly, this situation is observed in all revenue sources.

Table 2: State budget expenditures

	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017
Total expenditures	**428.4**	**764.0**	**2140.7**	**11765.9**	**15397.5**	**17416.5**	**19143.5**	**18709.0**	**17784.5**	**17751.3**	**17538.0**
Economy	52.6	89.4	444.7	4889.9	6803.2	6960.7	8207.5	7598.7	6408.8	4124.0	4394.3
Education	75.2	181.8	372.5	1180.8	1268.5	1453.2	1437.7	1553.9	1605.1	1754.4	1742.8
Healthcare	29.7	40.9	115.3	429.2	493.4	609.4	618.9	665.3	708.2	702.5	704.7
Social protection and security	36.5	139.3	304.9	1123.0	1495.4	1769.5	1750.3	1971.2	1857.2	2645.2	2350.2
Activity in the field of culture, art, information, physical education and other categories	9.8	20.6	50.6	168.4	189.9	240.8	274.9	294.0	272.4	687.4	253.3
Science	3.9	9.3	28.8	92.8	106.1	116.7	117.0	124.2	113.2	110.2	109.8
Judicial power, law enforcement and prosecution	40.6	74.4	206.4	668.5	710.3	929.2	1049.3	1103.6	1105.7	1117.1	1177.5
Supporting legislative and executive authorities, local self-government bodies	17.6	37.0	123.9	303.0	281.9	342.3	349.3	449.7	430.9	470.1	552.2
Other expenses	162.5	171.3	493.6	2910.3	4048.8	4994.7	5338.6	4948.4	5283.0	6140.4	6253.2

Source:www.stat.gov.az

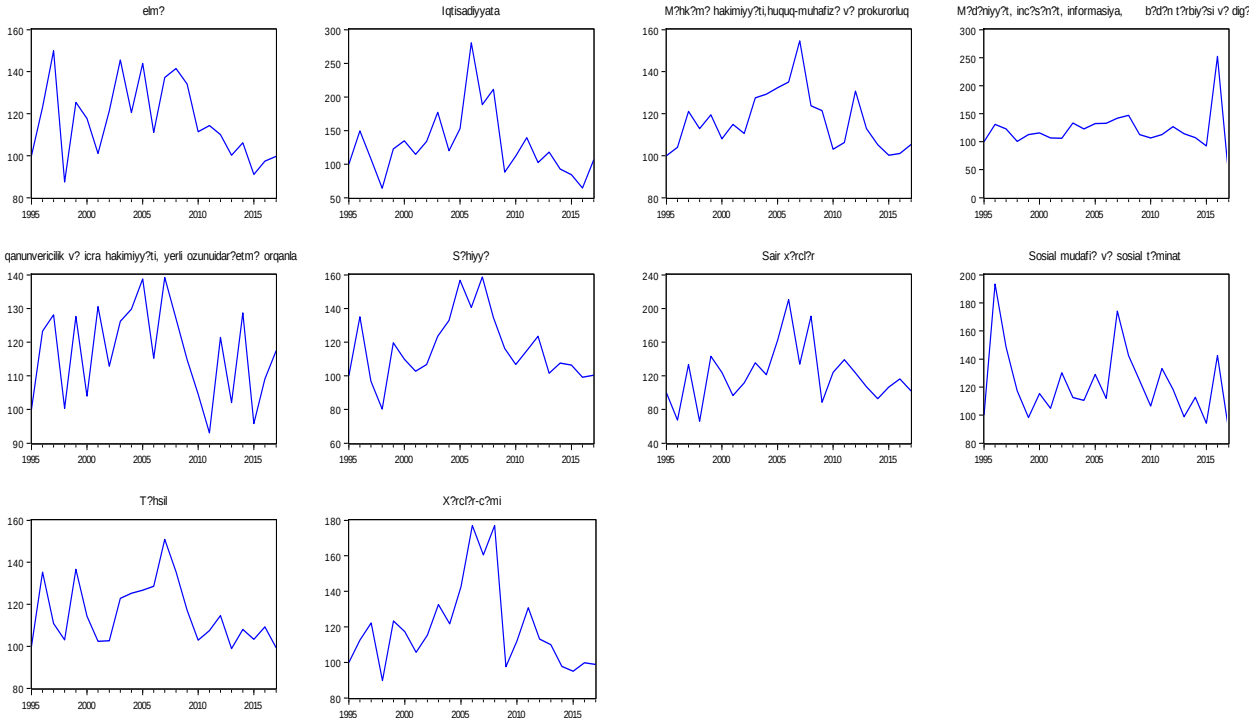


Figure 2: Dynamics of state budget expenditures (relative to previous year)

The expenditures of the state budget for the studied period of 1995-2017 have increased by 40.93% to 17538.0 million manats. Total expenditures have increased by 22.95% in 2017 compared with 2000, 8.19% in comparison with 2005, and 1.49% in comparison with 2010, whereas they have declined by 8.2% in comparison with 2013, 1.5% in comparison with 2015, and 1.1% in comparison with 2016. Similarly, this situation is observed in all revenue sources.

6. ECONOMETRIC ANALYSIS

Based on the results calculated with the PASW Statistics 18 and EViews 9 software packages, the following time dependent models of the state budget expenditures have been obtained.

Total expenditures

$$Y = \underset{(3,083)}{4743.48} \underset{(-4.593)}{-2495.28x} \underset{(5.890)}{306,36x^2} \underset{(-5.230)}{-7.46x^3} \quad (1)$$

$R^2 = 0.963 \qquad F = 168.837$

Expenditures on the economy

$$Y = \underset{(2.700)}{2710.79} \underset{(-4.368)}{-1548.86x} \underset{(5.615)}{190.61x^2} \underset{(-5.571)}{-5.19x^3} \quad (2)$$

$R^2 = 0.899 \qquad F = 56.816$

Education

$$Y = \underset{(3.445)}{294.95} \underset{(-4.156)}{-125.68x} \underset{(6.125)}{17.73x^2} \underset{(-5.193)}{-0.41x^3} \quad (3)$$

$R^2 = 0.983 \qquad F = 381.326$

Healthcare

$$Y = e^{(2.888 + (0.179x))} \quad (4)$$

(19.983) (16.983)

$R^2 = 0.932 \qquad F = 288.439$

Social protection and security

$$Y = e^{(3.819 + (0.188x))} \quad (5)$$

(38.469) (26.068)

$R^2 = 0.983 \qquad F = 56.816$

Activity in the field of culture, art, information, physical education and other categories	$Y= e^{(2.023+ (0.183x))}$ (17.798) (22.098) $R^2=$ 0.958 F=488.334	(6)
Science	$Y=$ 29.989 –15.01x $1.98x^2$ $–0.05x^3$ (3.400) (–4.816) (6.625) (–6.187) $R^2=$ 0.969 F= 199.216	(7)
Judicial power, law enforcement and prosecution	$Y=$ 186.48 –85.32x $11.11x^2$ $–0.23x^3$ (3.333) (–4.318) (5.875) (–4.565) $R^2=$ 0.985 F= 417.391	(8)
Supporting legislative and executive authorities, local self-government bodies	$Y= e^{(2.811+ (0.165x))}$ (31.628) (25.518) $R^2=$ 0.968 F=651.192	(9)
Other expenses	$Y=$ 1023.11 –510.77x $58.61x^2$ $–1.13x^3$ (2.599) (–3.674) (4.405) (–3.109) $R^2=$ 0.979 F= 240.525	(10)

Note: t-statistic is shown in brackets.

Statistical indicators show the model's compliance and reliability. The adapted R-squared indicates the model's accuracy, and its value is between 0 and 1. The accuracy of the calculation increases as the result approaches 0. 0.899-0.985 adapted R-squared means 89.9% to 98.5% of the change is explained by the change in the economic indicator. t-statistical measures the significant volatility of the model. It specifies the degree of compatibility in the model. t-statistical should be greater than 2, so that the coefficient is considered a reliable indicator. A greater t-statistical indicates that the variable is more significant in the equation. F-statistical indicates the accuracy of the equation used in model. A greater F-statistical means a more reliable model. F-statistical should be greater than 4 for the model to be considered acceptable. The probe (F-statistical) indicates the probability that the model is wrong. Models were chosen on this basis.

7. CONLCUSION

Efficient and cost-effective use of budget funds is one of the substantial modern-day fiscal requirements. Proper planning and effective execution of state budget expenditures also requires improvement of the normative base in this field. Improvement and unified coding of the existing regulatory and legal acts governing the state financial control and financial and budgetary system will serve to solve problems and improve performance in both areas. Coding of a legal framework that regulates broad-based activities is the most common approach and is characteristic of the top stage of development. Nearly twenty codes are valid in Azerbaijan and these codes successfully ensure implementation of multisectoral activity in the relevant field in a flexible and coordinated manner. From this point of view, the adoption of the Budget Code will ensure both budgetary processes that are the main financial operations, and the regulation of the control over those operations as a single complex.

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NEW APPROACH TO MANAGEMENT EDUCATION IN THE POST-SOVIET STATES

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ABSTRACT

Globalization and the rapid implementation of innovations in management processes have fundamentally changed the approach to management education. The need to train modern creative managers is triggered by the needs of business organizations and government agencies. In fact, in the post-Soviet states, the transition to a capitalist management system was completed, but the methods of managing the economy stayed mostly administrative. At the same time, the peculiarity of the development of separate states is so individual and multifactorial that it is impossible to formulate a single recipe for increasing the relevance of management education. Management as the most relevant science of our time, cannot be unified for all states, and the use of its methods, principles, functions very much depends on the mentality of the people, its culture, history, and the characteristics of the ethnogenesis of the nation. The changes that are occurring with a cosmic speed in Azerbaijan dictate an increase in the requirement for the training of modern managers, the changes of our education with the world's leading educational institutions. Therefore, the main task of management today in the country is the study of methods and ways of adapting innovation management to the real economy. If these modern challenges are not realized, Azerbaijan will not stand the competition. Therefore, the task of innovation management is a rapid breakthrough in managing the process of introducing new technologies into the economy and training progressive managers. The paradigm of the new millennium is becoming knowledge, increasing the productivity of mental labor, mastering the methods of its measurement. All this is completely related to management education. Consequently, the training of creative managers should be based on new educational standards, which provide for a completely new approach, involving the creation of a unified system. State, business and universities. This social triangle is a necessary condition for the development of society. Management education should be based on new modern learning technologies. The learning process itself must be synthesized with real practice. In the context of globalization, the pace of changes in economic processes, the replication of innovative novelties, their application in the production sector with the intensification of innovation activity on a qualitatively new basis are undoubtedly accelerating throughout the world. In fact, this is the "positively charged" effect of globalization, which allows an ever-increasing number of countries to benefit from innovative achievements, advanced technical standards and new management practices. According to forecasts, the growth of the world economy in the short and medium term future will occur as a result of the influence of this particular factor. The problems of education are firstly the preparation of highly qualified, specialized managers; secondly, the mass involvement of students in the process (through the start-ups) of creating innovative products that can withstand competition. The role of the state, in this case, is a) to coordinate the activities of start-ups, the creation of technoparks and technopolises; and b) economic incentives for their activities. It seems expedient to create integrated technoparks based on the synthesis of business ideas and resource opportunities. Modern information technologies allow solving this problem. At the same time, in this case, the problem of human capital development will be solved, the main indicator of which is education. Changes that occur in the training of managers require its cooperation by modern world universities.

Keywords: *business idea, innovation, management, start-up*

1. INTRODUCTION

The formation of market management methods requires a substantial reorganization of the system of personnel training in modern types of organizations and a completely new approach to managing new conditions. The developmental characteristics of individual countries are so unique that they can not formulate a single global recipe for the relevance and effectiveness of education. It is convincingly proven that one of the rapidly developing sciences is unequivocal for all states and it is impossible to reflect mentality, culture, history and traditions of different peoples. Changes in the education system of Azerbaijan, especially in the field of contemporary innovation and creative managers, require accurate clarifications based on the experience of the world's leading universities. We strongly condemn such an idea that the modernization of the country's economy is impossible without new creative thinking managers. As in other post-Soviet countries today, the main task of management in our country is to study the problem of effective management of innovative management in all spheres of economy. Globalization puts very strict requirements characterized by the fact that everything new to the citizens of the country is very rapidly applied to public life. If society is not adapted to these innovations, it will lose its competitiveness. The purpose of innovation management in Azerbaijan is to achieve a breakthrough in the field of innovative technologies and to achieve an effective and sustainable growth in education. The formation and realization of human capital in the market economy is essentially different from the realization of its socialist economy.

2. CHAPTER 2

At the end of the eighties of the twentieth century and early nineties, effective managers and specialists were primarily knowledgeable and at the same time quite knowledgeable. It was stable from these knowledge, but in the same way as in separate enterprises it required the use of the weaknesses of the country's economy in the planned management system. The pragmatism and the breadth of knowledge, as well as the ability of people to use logical analysis tools were given special value. The ability to produce logical outcomes would be the basis for success in decision-making, as some kind of future would have a logical transformation of the past. This approach to education has completely justified itself. It should be noted that the leading training centers were able to succeed in training such professionals. Graduates of a number of universities and educational centers were well-prepared for their management activities in state bodies and state-owned enterprises. However, the radical changes in the management of the enterprise demanded radical changes in the market economy, which seriously changed everything. If the earlier management strategy focused on the past, relying on past experiences, management in the new context was completely aimed at creating a future, as opposed to the past and present. Instead of logic, intuition and creativity have come. Of course, this can not be perceived as a denial of logical analysis and logical outcomes. They also demanded that all other changes be fully reviewed and addressed by the graduates of the training and retraining department. This, in turn, required the content of the education and teaching methods to be viewed from a new perspective. In our view, this last approach should be considered more important. Education is a combination of the knowledge that this student reflects on the entire educational institution and in particular with teachers and students. More precisely, education is a process of positive changes in the student as a result of a complex interaction with these educational institutions. Education is the process of changing this person. By educating, people change their outlook and acquire new qualities that they did not have before. At present, our republic is trying to make radical and effective changes to the content of the education system. Entry into a completely new education system is not a simple matter, but rather a complicated process that covers all aspects of the public recycling system. If somebody thinks that a change in the education system can be made, it's totally wrong. The education system should be based on modern innovations, using the past experience as a future

development system. Today, there are problems in the labor market and education services interactions. Thus, graduates of educational institutions increase the number of "unemployed" army because the offered specialties do not meet the needs of the labor market. Business-science-education social triangle is a necessary condition for today's development. It is possible to talk about innovation economy within the framework of mutual influence of the business-power-education model. So, it is important to stand on the following issues. First of all, let's look at the distinctive features of management education, and then analyze how students and teachers interact in this type of education and how the teaching process is being implemented. The management education system incorporates the combination of elements and factors of professional managers, as well as elements of training specialists in the fields of economics, finance, accounting, law, social science and other fields that can become potential managers in the future. In the modern management education system, postgraduate education institutions include specialization, modification, retraining and additional education, faculties, business schools, management centers, educational and business centers, etc. is of great importance. Today, Azerbaijan has the right to provide training services to technical universities, even for high schools, in the field of preparation of interesting, but also contradictory, managers, entrepreneurs and businessmen in the field of managerial management. Another observed shortfall is that organizations should create higher education institutions to meet their limited and limited needs, using their favorable capacities. The tendency to tough commercialization of management education, in turn, affects its development in Azerbaijan. Most of the specialists in management, marketing, entrepreneurship and other fields in Azerbaijan are trained on commercial terms. A few words could be said about the distinctive feature of management education. Usually speaking, the conversation is entirely spontaneously understood by the activities of the teaching centers, primarily of their teachers. Teaching means the amount of knowledge, attitudes and habits that a student collects during a conversation with an educational institution, especially with a teacher and other students. To put it more precisely, education means the changes occurring in students (future specialists) as a result of complex interactions in the educational institution. Education (teaching) is a process of changing people. People can change their outlook by learning new things they do not have before. All this changes the reality that people live and operate. Therefore, it is possible to look at the change in the understanding of reality in general education. The main trends of the transformation of the teaching process into new teaching methods are as follows:

- The first is to switch to integrated education in the context of studying the subject rather than learning and examining these key topics, tasks, and individual questions.
- Secondly, focusing on the ability to concentrate on the problem of teaching correct answers to these questions. Real truth does not have the correct answer, regardless of experience. People achieve the results they can achieve by applying certain methods of solving problems.
- Third, the type of passive education that distinguishes the listener, the teacher, the repetitive role of the student, the knowledge, decisions, information and so on. Replacement with the type of education that is active creator.
- Fourth, replacing the teacher with supervision by the teacher in the teaching process.

The teacher defines the rules of the teaching process, and the student controls how the education process is implemented and how the teaching process is carried out. Control is carried out not on the principle of "knowledge-student performance," but on the "principle of the educational process - the degree of achievement of the student". When talking about management education, which is considered to be a particular type of education, it is not entirely enough to agree that it meets the maximum educational requirements of the educational process. It is important to look at the factors that are characteristic of the management education process to describe the

specific features that are relevant to it. One of the most widespread education processes in most types of education is the transfer and acquisition of knowledge. As a result of this process, a certain scheme is scratched at the head of a person. Undoubtedly, education can not be done without this process. However, it should be noted that this process in management education is extremely limited. Thus, this process can not have a major impact on the main results of business education, the attitude and attitude of the educator. At the same time, education is carried out by observing the behavior of others. It is not important to observe the observation in this case. This process can have a significant impact on the student's behavior. This can be more vividly reflected in the context of non-standard original behaviors in a surrounding environment. Such observation facilities are primarily teachers, scholars, famous and well-known professionals. It is a great experience for experiments based on experiments for a number of educational processes. This type of education allows the idea to be formed in practice. Such education does not only help the student to become a reality, but also to create certain habits and skills in the student. A more complex and at the same time a more effective method of education is learning and learning. This type of education is carried out in the form of realistic tasks in real terms, in other words, to the realest possible conditions. In this process, we observe the interaction of all previous educational processes in the process of solving the tasks set up in natural competition. If we talk about management education, then the high effectiveness of action is vastly undeniable. If we try to describe the profile of the past graduate with a course of management education, then it should definitely combine three groups of abilities and qualities:

- the ability to understand the situation;
- definite skills and abilities;
- defined behavior;

Thus, the ability to understand the situation means that the knowledge gained is concentrated on three objects (business environment, people, organization and organizational process). The existence of a certain behavioral pattern is a more important requirement for a graduate who wishes to work in a large business organization that has gone through a curriculum and has a "corporate" culture. This requirement is conditioned by several factors.

- First, the graduate should have a certain level of cultural development. This is to know and understand the history, customs and traditions of the country and people, to adhere to its ethical norms, to know the rules of etiquette and so on;
- Secondly, the graduate must work in the group, in the team, coordinate their interests with their interests, follow the required place, and respect the certain requirements of the team;
- Third, the ability of young professionals to enter into an independent and responsible life has the ability to communicate, to properly understand the meaning of their actions, to use information, to listen and to respond properly to responses;
- Fourth, the graduate must be open to the novelty and be prepared for change;
- Fifthly, the graduate should be responsible for the work, has responsibility and dedication in the organization;
- The sixth should the scope should aspire the graduate to work. If a graduate does not like to work, it will be difficult for him/her to work in harmony with his/her work, especially with the staff involved. Because most of the modern, advanced organizations are characterized by intense labor of its employees.

The core of the new technological structure is the combination of NBIC technologies. The name is an abbreviation of the initial letters of the term "nano, bio, information and cognitive technologies." According to representatives of the US National Science Foundation, which regulates the financing of scientific projects, NBIC technology determines the development of

civilization for the next 50 years (Musaev A., Shevchuk A. Tikha, 2016, p. 44-51). In our country there are indeed shifts aimed at the development of innovations in the industrial sector. Considerable attention is paid by the state to organizing the work of technology parks and start-ups to integrate them into the global innovation community.

3. CONCLUSION

Modern management education is a symbiosis of integrated professional management education and compulsory innovation-intellectual (i.e artificial intelligence) education. Establishment of management schools in our times is crucial. Management schools differ from business schools in their aim and play a major integrating role in society, namely management, its proper organization, bringing high profits to business organizations. Highly professional managers (not politicians) manage economic processes, their knowledge and qualifications guarantee the success of an organization. To solve the problems of modernization of the economy of Azerbaijan following are necessary:

- creation of a new industrial policy aimed at the development;
- creation of an industrial policy management structure;
- active state influence in the processes of technological development;
- effective use of raw materials, human, intellectual and scientific resources;
- creation of sites (clusters) for the successful implementation of the new industrial policy;
- focus on personnel, by creating training programs for qualified personnel to work with advanced technology.

These proposals are crucial for the transition to a new model of economic development, which is associated with the advanced development of industrial sectors and services. The training of qualified personnel can increase the economic efficiency of the industry, help to overcome technological stagnation and make step forward, into a new industrial revolution.

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STRUCTURAL MODEL OF ECONOMIC DEVELOPMENT OF AZERBAIJAN: CHALLENGES AND OUTLOOKS

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According to its intrinsic logics, challenges of interaction between a production and market, is about the necessity of ongoing channeling of the production to social interests of a human being, as a demiurge of all forms of living process, since the productivity and efficiency of other activities directly depends on the level of its social security. During the period of administrative-command system of the former socialist camp, the development of market relations was hindered by mono-systemic economy, oriented towards the use of a single state property; overburdened regulation of production-economic processes at the macro-level; limited economic freedom of economy at the micro-level; centralized orientation of provision of material and financial resources. These new international subjects faced a challenge to choose a way of how to introduce civil market relations with socially oriented economy. By that time, there was a best international practice of European countries: Germany, Denmark, Norway, and Sweden etc. These countries, in 70s of the XX century, have been managed to settle objectives in practice, which were set, but not fulfilled by former socialist countries. The definition of the "success model" emerged in the scientific vocabulary in the second half of the XX century has been implemented in our country too. Whereas up to 90s that definition was used in relation to Germany, Japan, Sweden and other such kind of countries, China and Turkey were in the limelight of the world community in this respect in early 90s of the XX century. In-depth research was made to learn the essence of their economic development, which results in such a rapid and effective prosperity.
Keywords: *challenges of interaction, administrative-command, macro-level, limited economic, market balance, inter sectorial competitiveness, investment and consumption*

1. INTRODUCTION

According to its intrinsic logics, challenges of interaction between a production and market, is about the necessity of ongoing channeling of the production to social interests of a human being, as a demiurge of all forms of living process, since the productivity and efficiency of other activities directly depends on the level of its social security. During the period of administrative-command system of the former socialist camp, the development of market relations was hindered by mono-systemic economy, oriented towards the use of a single state property; overburdened regulation of production-economic processes at the macro-level; limited economic freedom of economy at the micro-level; centralized orientation of provision of material and financial resources. As a result of the collapse of the socialist camp at the end of the XX century, newly emerged international economic subjects inherited dilapidated economy with fairly weak social base, including production sphere. These new international subjects faced a challenge to choose a way of how to introduce civil market relations with socially oriented economy. By that time, there was a best international practice of European countries: Germany, Denmark, Norway, and Sweden etc. These countries, in 70s of the XX century, have been managed to settle objectives in practice, which were set, but not fulfilled by former socialist countries. Remaining market economies based on private property, European countries have successfully resolved a number of social problems. Due to high level of socialization of property through shares and partnership relations, as well as summarizing the management function through the Government, they achieved a high level of social security of all layers of the society, even then, 1/3 of their national revenues were channeled to the development of the

social sphere (social security, healthcare, culture, education etc.). It's understandable that the achievements on the solution of a number of social problems were based on already existing necessary social-economic bases. But, this in no way undermines the attractiveness of their experience, highlighting necessity of the creation of an economic basis later or soon (preferably as soon as possible). At the end of XX century, many foreign observers indicated a successful cohesion of a rapid economic growth and large-scale economic reforms in Sweden amid relatively social contradiction in the society. This successful and peaceful model of Sweden was significant contradiction to the rise of social and political conflicts in the environmental world. Swedish model of socialism covered private entrepreneurship and elements of public regulation of the socio-economic tool. (Mordal, 2009) The most interesting aspect of the model was that the government insured equal provisions for all its citizens in the fields of basic social gains (social security, healthcare and education), while interests of benefits were not decisive. (Fomichev, 2001) These facts are solid evidence of vast opportunities that realizes a market economy, which are implemented due to rational unity of state and market regulations in the fields of production and consumption, providing for high level of social orientation of the production (Rayzberg, 1995). When the leading economist and politicians of Azerbaijan had to choose a specific way of fundamental renewal of the production, they used a Swedish practice of the solution of social problems of population with the strengthening social support to production, of course, while taking into account local socio-economic characteristics. The success of this approach stemming from economic growth should have been hammered by a social progress: protection of social justice norms, gradual increase wellbeing of the people, stabilization and sustainable development in economic and social life. To this end, a package of activities should have been carried out aimed at the creation of an organic link between the newly emerged economy and social orientation. The main task was the transition of a society to new qualitative stage. The indicator of the development level of a human capacity became a leading factor in the social policy of democratic Azerbaijan.[1] Taking care of a people, his/her healthcare, education level, professional ability, general culture and supporting of active and creative capacity of working population, specialists is an integral part of a market economy, on which depends internal political stability and sustainable development of the society, where interests and demand of people are given outmost priority. Achieving social re-orientation of production at all structural levels, beginning from each working team to national level, are an important leverage for economic independence of Azerbaijan. Further measures on the improvement of economic forms depend on the growth rate of a market economy, one of the main goals of which is to ensure social protection and security of citizen, keeping their economic freedom. The measures are regularly carried out towards for increasing labor productivity and creating an enabling environment promoting and facilitating innovative ideas in modern period in Azerbaijan. Currently, measures aimed at social development of Azerbaijan are forged and implemented as a united system, taking into account development of different towns, settlements and regions. A large-scale program of social activities covering the whole nation is one of the backbones in this direction. But, to my mind it would better for further strengthen of social orientation of economy. It is possible through taking into account the demographic content of the population, national peculiarities, income (revenues), organization and labor, and consumption. While improving the welfare of people and resolving sensitive social problems, it’s necessary to pursue effective structural reforms in the national economy of the country for the fulfillment of current and future tasks as well. Forecasts related to the processes of social orientation of the production should be based on real, concrete factors, not on abstract views. Solid base of social orientation of the production in the development of the country should find more realistic repercussion, should shift to a comprehensive development of economic and social relations.

[1] http://www.economy.gov.az

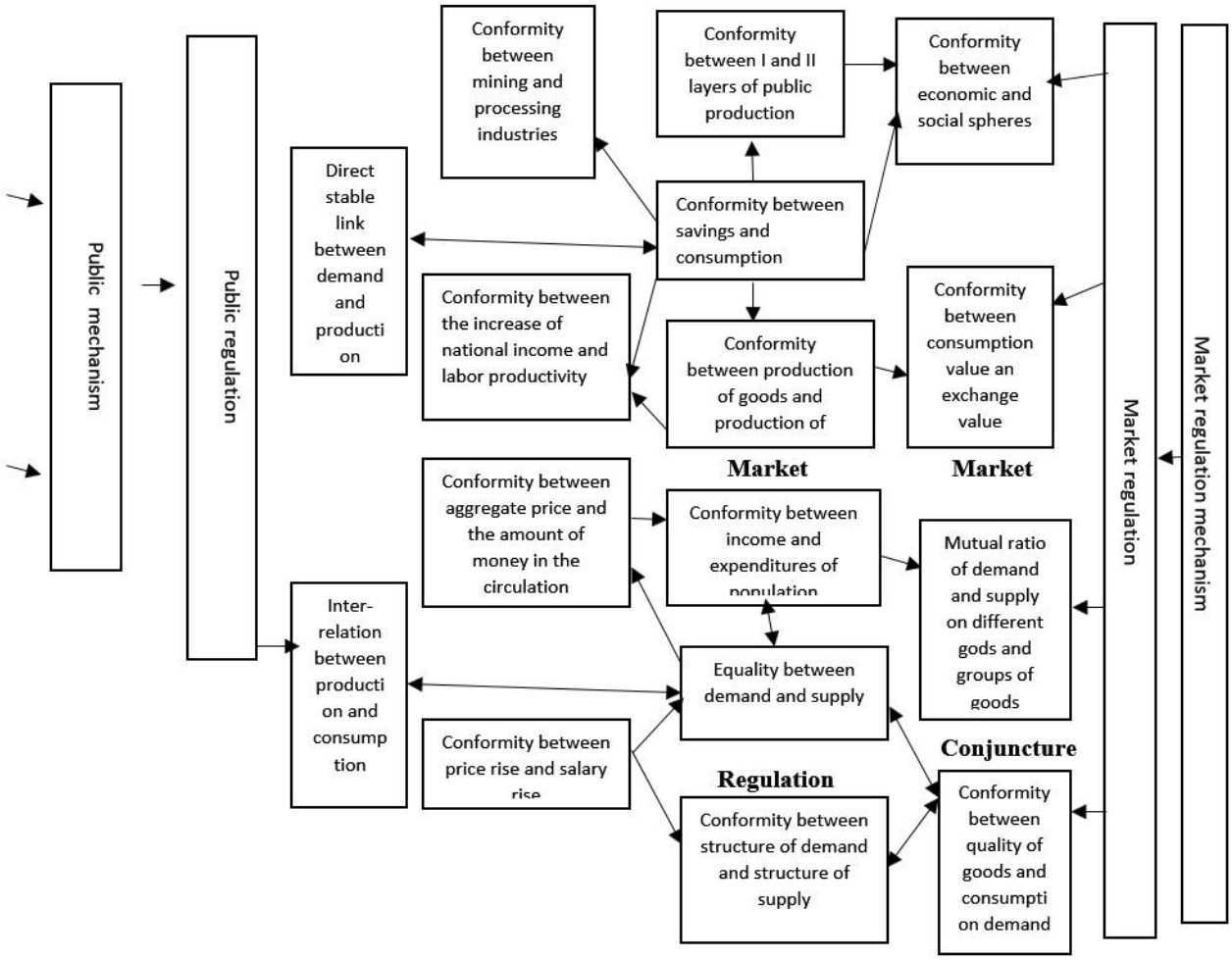
Currently, there is a flow towards the mobilization of resources for the provision of social re-orientation of the production at all structural levels, beginning from each labor team to the national level. In my opinion, this is an important advantage of economic independence of Azerbaijan. It's noteworthy to mention a well-known fact that Azerbaijan's model of socially oriented economy was stemmed from its advantageous factor – energy resources. In principle, this is consistent with the theory of an American economist M.Portrer, who says that country's economic model should use advantageous factors as dominant elements.[2] If we look at the system of world economy from the angle of "open doors" for defining an economic security based on the criterion of the international labor division, Azerbaijan is standing at the same level with the developed countries of the world (Great Britain, Germany, Italy etc.) according to the export quotas. It is evident that one of the main factors for economic development of any country, based on the definition of the International Economic Organization, is the level of provision of energy resources. Provision with those resources creates a favorable condition for the organization of a rational use from the export capacity and expansion of its assortments. The Organization of Petroleum Exporting Countries (OPEC) is a good example in this term, where the share of export quota in GDP is more than 50%, where in Azerbaijan more than 80% of the export is consisted oil and oil products. Taking into account this factor in the process of economic development which is the currently underway in Azerbaijan, strengthening of the processing industry through the development of the non-oil sector with the expanded export assortment plays an important role in the structure of the export. The Azerbaijan oil was a driving force taking the country to the leading positions in terms of socio-economic development. Over the last 5-6 years, the country's economy grew 2.6 and the industrial capacity rose 2.5 times. The poverty level declined 3-4 times and budgetary spending increased more than 10 times. A large-scale social programs are being implemented in the country and solid base was made for a stable development of the nation in the future. 2010-2015 was a new stage of the development for the economy of Azerbaijan. These years coincided with the period of crisis where many countries faced degraded main macroeconomic indicators, declined GDP, foreign trade turnover, massive unemployment and serious liquidity deficit. Azerbaijan has managed to escape from all of those tribulations. This is happened due to considerable strategic currency reserves, conservative foreign indebting policy, minimization of dependency on foreign financial markets, insuring of the stability of the national currency –AZN manat. As, Mr.Shahin Mustafayev, Minister of Economy of Azerbaijan said, both international and financial institutions and prominent ranking agencies and experts unanimously indicated the resilience of Azerbaijan's economy to the world financial and economic crisis. Economic Memorandum prepared by the World Bank highlighted that compared to other countries Azerbaijan faced the global crisis while being in a relatively strong position. Azerbaijan didn't undergo to major impacts and its financial sector managed to escape the crisis. According to the Fitch Ratings Agency, in 19 out of 21 European countries GDP has been declined, in one country remained unchanged and only in Azerbaijan, there has been an economic growth, which has been forecasted to be at 8% by the Asian Development Bank(ADB). It should be noted that this happened amid the reduction of the oil production by 2.2% in comparison with the relevant period due to technical problems, and fall of the price at the oil exchanges. But, as a result of measures carried out in Azerbaijan, the production in the agriculture sector rose by 4.4%, the overall volume of freights by 1.1%, the level of transportation of oil goods by 5%, retail turnover by 10% and the amount of paid services by 20.5%. All these factors contributed to the 13.7% growth of the non-oil sector compared to the same period, while proportionally contributing to the social wellbeing of the country, where income rose by 25% and average monthly salary by 26.5%. Citizens working in budgetary organizations benefited from that situation much, as the national currency was stable, wages and pensions were paid in time and

[2] Porter M. International competition. M. International relations. 1993. P.51

consumer price was declining. Naturally, as mentioned by Mr.Ilham Aliyev, President of the Republic of Azerbaijan "fall in prices of foodstuff, construction materials had a positive impact on the solution of social problems and increase of social welfare in Azerbaijan". Mr Aliyev also indicated the negative aspect of falling prices: "We can't afford a large deflation, as it may have a negative impact on our overall economic potential". New stage of economic development in Azerbaijan will be directed, as it was done in the past, at the strengthening of the non-oil sector, particularly expansion of the capacity in the agriculture, processing industry and development of regions. All these have been defined in the regional development programs covering 5-year horizon. Considerable economic achievements made by Azerbaijan over the relatively short period are undisputable facts. According to its economic development, Azerbaijan became the leading country of the region, doubled with its strong power. Of course, those achievements have not only been made through economic processes, as a result of operation and leverage of objective economic rules of market relations. This is the result of huge efforts, administration experience and all-sided scientific thinking united for the sake of restoration and development of the state. The structural model, which we propose, is based on the analysis of main characteristics features of the modern mixed market economy created in the industrialized countries as a result of a long evolution process. In this way, the structural model differs from economic models (Anglo-Saxons, China, Scandinavian etc.) of a free market period and current economic development models of the countries in the world. Fast economic development of Azerbaijan drew attention of a number of countries, international organizations, as well as different economists and experts. The definition of the "success model" emerged in the scientific vocabulary in the second half of the XX century has been implemented in our country too. Whereas up to 90s that definition was used in relation to Germany, Japan, Sweden and other such kind of countries, China and Turkey were in the limelight of the world community in this respect in early 90s of the XX century. In-depth research was made to learn the essence of their economic development, which results in such a rapid and effective prosperity. Now, in the beginning of the XXI century we can definitely say that Azerbaijan is standing among the abovementioned countries. This demonstrates the position of Azerbaijan, which is at the threshold of an economic miracle (Huseynova, 2009). It's noteworthy to mention that the strategy, used with a great success in Azerbaijan, providing high socio-economic growth of the country, should be evaluated as an Azerbaijan's model of the national development and logical outcome of the economic policy. This strategy, which was built on democratic principles, is based on dialectical coherence of national and human values. No doubts, only in that case it's possible to preserve a national identity on the one hand, and to integrate systematically into the globalized world, while importantly positioning at the international labor division system and insuring optimal conditions for the operation ate the regional and global stage. The proposed structure model envisages the unification of the pure market model the increasing role of the state. The rational for the application of the structural model of the developed market economy in the countries with developing market economy has been analyzed. The market economy is being developed and market relations are being deepened in Azerbaijan. In this direction, the experience of the developed market economy has been taken as a basis for the development of the market mechanism, while also considering peculiarities of the national economy of Azerbaijan and background production habits.

Figure following on the next page

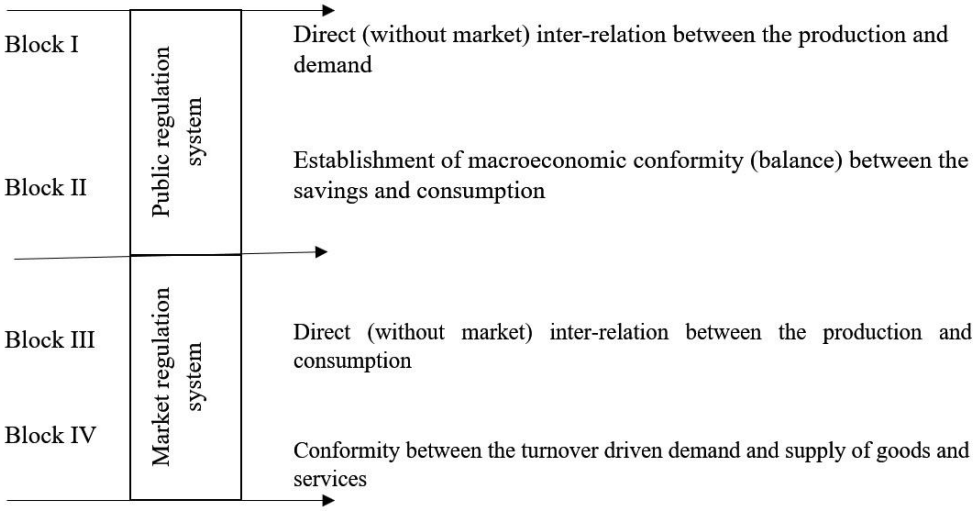
Figure 1: Schematic description of the structural model of market economy



The proposed structural model, which conforms to the market economy and its traditional relations, allows the more correct determination of the status of socio-economic relations covering the re-production and provides the scientific base for its justification. Modern market mechanism has a comprehensive nature. It includes elements, which coherently cover pure market elements, and non-market elements, e.g. elements that reflect economic functions of the Government. These 2 mechanisms that are principally deferent from each other, but, at the same time, are dialectically connected with each other, are tied through 4 block relations (systems). Such kind of basic relations is capable to define all elements of a market mechanism through details of inter-influence and inter-dependence and consequently determine direct links (avoiding market), which are adequate to them. They are briefly shown in the following block:

Figure following on the next page

Figure 2: 4 block relations systems



The block of four links, which are coherently related with each other in the market structure of the mutual influence between the production and market, should be analyzed as relevant stages of the market economy with different structure. The deeper and more substantiated relations determining the most basic features of socio-economic essence of the analyzed blocks are relations between the demand and production[3]. The apparent sides of such deep relations are relations between the production and consumption. In the everyday life, they are encountered as the amount of currency, volume of goods and services, and then demand and supply. System relations requires comprehensive accounting of the diversity of all elements and blocks affecting the formation of the market mechanism and distinguishing those which are leading and hold a central position in the system analyzed. Although not any single element can be perfect in itself (their inter-relation is a factor ensuring their perfectness), we think that inter-relations between the production and market can be considered perfect, if they are taken in the complex interaction. The inter-relation between the production and market among the main elements and blocks of the model analyzed is the apparent, more flexible and changing side. It can be considered as a relations that changes the shape of the apparent layer of the process.

2. RESEARCH

As it is seen from the diagrammatic sketch of the above mentioned structural models of economic development, the market equilibrium can be mathematically connected with the Leontyev macro model. The prerequisites for this equilibrium model consists of that a large number of products are produced, sold, purchased, consumed and invested in the country; each material production area produces only one kind of product. It is a form of solit relation between the production unit and the volume of production. In this case, the equilibrium balance between the consumption and production of the country will be expressed in the below mentioned equations system.

$$X_i = \sum_{i=1}^{n} a_{ij} z_{j+} Y_i \quad (\text{i} = \dot{\text{I}},\text{n}) \ (1)$$

Here: $X_i - \mathbf{i}$ is a cumulative product of material production;-

$Y_i - \mathbf{i}$ is the finished product of material production field ;

a_{ij} - is a relative fixed parameter, indicating the quantity of this or that product used to produce a particular unit of product.

[3] Here it is required to determine the impact of relations between the demand and production on the inter-relations between the production and consumption, as well as generally, on the mechanism of re-production.

(1) Equity model is a national product of the finished product in the country

$\sum_{i=1}^{n} y_{i=} \sum_{j=1}^{n} z_j$ - ensures balance.

The model of market equilibrium (1) is only productive when this model can be settled at the price of $X_i \geq 0$ (i=İ,n). The Valras model is of particular importance, which enables the overall balance of competition to be explored in the market equilibrium. In this model, the country is being studied as a mechanism for the production and consumption of a large number of products based on the above mentioned system. Although there are many producers and consumers, none of them can affect prices. The Valras model proves that competitive prices may be exited for maximizing each producer, while each consumer can maximize its own benefits satisfying certain conditions. When these prices are set, it will be possible to eliminate inconsistencies between consumers and producers in the country. Let's assume that the N-type product is produced in the country where L is a consumer (i=$\overline{1,L}$) and m (iL=$\overline{1,m}$) is the producer. (j=$\overline{1,N}$) P=(P_1,P_2...,P_n) is vector line of values, but X=(X_1, X_2,...X_n)[1] is the vector column of the products. The two functions characterise each consumer - $Y_i(p)$ demand function and $K_i(P)$ revenue function. It is assumed that for consumption:

$$K_i(p)=pb_i+l_i(p) \quad (2)$$

conditional balance payment is derived from $l_i(p)$ income, generated by the $\mathbf{b_i}$ revenue from the sale of the primary goods of the product and the cost of the consumer. $Y_k=(Y_{k1}, Y_{k2,...,}Y_{km})^1$ of each consumer's technological capabilities is characterized by the expense of-output vector column. Hence, PY_k skalyar sum will be the producer's profit. It is natural that all possible Y_k cost-product vectors will be the majority of Y_k production opportunities vectors. Then all costs for macroeconomics - the output vector Y_k will be calculated by the sum of individual vectors

$$Y = \sum_{i=1}^{n} y_k$$

For all consumers:

$$b = \sum_{i=1}^{i} b_i$$

The total aggregate indicator [b] + y is the aggregate bid dimension. Distribution of consumption is carried out by the consumption of each consumer X_i€X_i (i=$\overline{1,L}$)).

Then $X = \sum_{i=1}^{n} x_i$

The total aggregate is called demand vector. Note that some components of this vector may also be negative. (if these components represent supply (e.g. if the labor reflects).

If (x_1, x_2,...,x_l;y_1,y_2,...n,y_m) are consumed and costly for the majority of sectors

$$X = \sum_{i=1}^{n} x_i = b + \sum_{i=1}^{n} y_k = b + y \ (3)$$

If the aggregate demand is a contractual bargain, then it is assumed that there is a common division of production and consumption.

If: $X^* \in \varphi_i(P^*);\ Y_k^* \in \varphi_i(P^*)$ (4)

$$\sum_{k=1}^{m} y_k^* + b \geq \sum_{i=1}^{l} x_i^* \quad (5)$$

$$p\left(\sum_{k=1}^{m} y_k^* + b\right) = P^* \sum_{i=1}^{l} x_i^* \quad (6)$$

If conditions are met, then $(x_{1\ldots}^*, x_{i\ldots}^*, y_i^*, \ldots, y_m^*, p^*$ cluster determines the balance of competition in Valras model. P^* has assumed as a vector of competitive prices (5), (6) has acquired the name of the Valras law in its dependence. If "=" dependency is the case in the (5) condition, then this model can be interpreted as a narrow Valras law in a narrow sence. Thus, if the aggregate demand exceeds the aggregate supply,(5) condition is made), then the competitive balance implies a co-production of production and consumption. In this case the price of aggregate demand in competitive prices is equal to the price of the aggregate supply (6 condition) at each of these prices, each consumer maximizes its profit in the P^* prices and each producer maximizes their profit in those prices. Hence, the existence of a competitive balance ensures that there is a high probability of P^* equilibrium prices that can be reconciled with the conflicting interests of consumers and producers in the macroeconomic system. It should be noted that the existence of a competitive balance does not automatically enable the economy to switch to this dimension and the conditions of the transition should be evaluated.

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DOMINANCE IMPROVEMENT OF THE EXPANSION MECHANISM OF AZERBAIJAN FOREIGN ECONOMIC RELATIONS

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ABSTRACT

Nowadays internal and external (foreign policy) course of Azerbaijan Republic could be an example for the other countries of the region. Azerbaijan demonstrates the practice of systematically conducting a balanced political course in such a complex region as the South Caucasus and the international position of the country is growing day by day. The article notes that Azerbaijan is a country with very favourable climate conditions and rich natural and soil resources, large reserves of high-quality oil and natural gas. This article discusses the development of external economic relations of Azerbaijan, a policy that guarantees the distribution of natural and industrial resources. At the present stage economic development of Azerbaijan is largely determined by globalization processes. Internationalization and the challenge of globalization reinforces the need to increase the openness of the national economy. The purpose of this article is to show the ways to strengthen the external economic orientation towards globalization, to open up new opportunities for development of the country. The idea of expanding world economic relations with both international organizations and individual countries is being justified, the possibilities of new technologies, the organization of management, knowledge and much more are being strengthened. The final part of the article is noted that the country's international trade gives Azerbaijan greater flexibility in the production and export of products with minimum costs. Also it states that in recent years Azerbaijan has increased its share in world trade by expansion of oil and natural gas extraction, reconstruction and construction of new power plants, restoration of the Great Silk Road and the tasks that today are set in the direction of expanding the base for tourism.

Keywords*: Azerbaijan, development, external policy, globalization, trade*

1. INTRODUCTION

According to the results of the World Economic Forum's Global Competitiveness Report (2017-2018) the economy of Azerbaijan is more competitive in comparison with other countries. Azerbaijan occupies the 35th line in it. Being an active participant in international integration associations and economic organizations, Azerbaijan using its geographical location and significant hydrocarbon reserves, subsequently leads foreign policy aimed to promote international trade and economic cooperation. Involvement in global economic relations becomes an indispensable condition for development of the country. Foreign economic activity in terms of economic independence carries with it a large reserve of its impact on both the domestic market and the involvement of the republic in the international labor division. Dynamic development of the economy and increasing its efficiency are main ways of development of foreign economic relations. Considering that we don not mean only development of the production potential, but also maintenance environment protection, and improvement of life and working conditions of population. As we know development of international trade gives the country the opportunity to sell and buy and to make reasonably decision regarding the development of the country's export potential and, finding the most appropriate way to expand it. At the same time, entering the world market always forces to reckon with the possibility and necessity of modifying and changing economic decisions in the future.

For the development of foreign economic relations, the policy of production must ensure the distribution of natural and production resources. To create such conditions the republic has a huge potential: excellent natural, climatic and soil conditions for growing agricultural crops; large reserves of high-quality oil and natural gas, which are of key importance in geopolitical terms; rich mineral resources (deposits of iron ore, non-ferrous metals, building materials); recreational resources; geographical location and transport networks for the passage of the ever-increasing flow of transit cargo and passengers from Europe to Asia and back, connecting Azerbaijan with many countries of the world. But as well as natural resources, Azerbaijan has an accumulated scientific and technical potential and an enterprising population with a favorable external environment - a political and legal system, and a sufficient increase in foreign investment.

2. CHAPTER 2

One of the most significant sources of income for the country is the high level of exports. Practically in the world companies producing competitive products receive large profits. For many countries, sales are the main motive for participation in foreign economic activity. In other cases, procurement allows you to purchase unique products that are not available in your own country. For Azerbaijan, trade is the most important direction of saturating the domestic market with goods and services. But foreign economic activity is not only operations, but also an intensive exchange of qualified specialists, new technologies, and access to investments, cheap labor and much more. Azerbaijan seeks to intensify foreign economic activity not only with the aim of improving and expanding economic activity, but also to determine on the basis of completely new approaches to expand facilities, the quantity and quality of goods produced, seeks to define the contours of its business activity in the world, to ensure, as a result, changes in economic and social life. As the country improves the economic legal environment of foreign economic activity, major changes in society will be accompanied by fundamental economic changes. International cooperation opens up great opportunities for the development of the national economy, because it can offer investment, technology, managerial experience, and access to world markets. The development of foreign economic activity indicates that the world economy is accompanied by a specialization of production. The fact is that a country trading with other countries specializes in the production of certain goods in volumes exceeding its domestic demand at the lowest cost. And here the manufacturer should try to acquire more customers. This will reduce its vulnerability to the loss of any one or more importers. Having access to goods produced in another country, which we cannot produce ourselves and at the same time exporting products for the production of which Azerbaijan has an advantage, it is possible to raise the standard of living of the population. Now Azerbaijan is more dependent on the import of many industrial and food products. This type of dependency distracts significant credit resources that could be used in various sectors of the economy in order to produce goods for domestic consumption and, consequently, reduce unemployment. But we should not talk about the abolition of dependence, but about changing and improving its trading advantages. Attracting foreign companies, the state has now made large investments in the gas sector. However, the state should take an active position in identifying other key sectors of the economy and assist them in acquiring the necessary investments by providing incentives. By directing efforts into the industries such as petrochemical, mechanical engineering, metallurgy, silk, winemaking, carpet weaving, fruit and vegetable, fish, tourism economy can become less dependent on the import of finished products. Production of local products that can compete with imported products should be encouraged. The recent devaluation of the national currency makes local products less expensive and clearly imported products more expensive and that leads to decrease in demand, therefore, to a reduction in imports. Exchange rates also affect the demand for products of a particular country.

These arguments may explain the reasons for government intervention in foreign trade. International trade gives countries greater flexibility in the specialization of production and export of products that use minimum costs. The country will benefit if it imports goods that are less efficient in this country. Only advanced economies with technological advantages are most capable of producing diverse and complex products. At the same time, these countries have an excess of highly qualified specialists. Investments in the development of tourism can be more efficient than, say, oil production. Therefore, it is necessary to find more efficient ways to expand exports. Using our natural wealth for tourism can give the country a significant economic benefit. Many countries have long realized this. It is necessary to exercise caution when using natural resources, carefully assess the forms and methods of their involvement from the point of potential environmental impact and preservation of the ecological balance. The problem of finding rational world economic relations can largely be solved by increasing the financing of agriculture. In many countries, the development of agriculture is carried out on the basis of two forms of financing: at the expense of credit sources and at the expense of own funds of economic units. There are countries where agriculture is subsidized (developed countries allow themselves to do this). A significant place in the development of agriculture is taken by the creation of a developed infrastructure - water, energy and gas supply. The problem of investing the infrastructure of villages should be solved at the macroeconomic level. There is an urgent need to build small manufacturing industries in areas where crops are grown, to channel funds to modernize existing enterprises and equip them with the most up-to-date machinery and technology. On this basis, it would be possible to somewhat reduce rural unemployment. Further improvement of the existing mechanism for the distribution of investment funds is required to expand peace ties. There are more and more opportunities for the development of foreign relations in Azerbaijan. Now he is in the process of joining various international organizations. This will accelerate the process of integrating the republic's economy into the world economy. World trade poses a number of challenges for the improvement of market relations. The effective participation of some forms of management in trade operations reflecting national interests implies their further growth and a relative reduction of other forms. However, if imports are based on an appropriate organizational and legal system, then with regard to exports, it should be considered as features of the advantages in the production of certain goods and services. An important requirement for entering the world market is to have advantages either in manufacturing products, or in the supply of fuels with energy resources, or the availability of technology, preferably in infrastructure. Having advantages in quality or price of the goods produced, the country can strengthen its position in the global market. Azerbaijan can increase its share in world trade. The main role in these changes may have: expansion of oil and natural gas production, attracting foreign oil companies; assistance of foreign companies in the reconstruction and construction of power plants (will allow to export electricity); reconstruction of oil refining and petrochemical industries, whose products have a large export potential; the development of engineering industries (in particular, oilfield equipment) using advanced technologies will allow them to be exported to other countries; the availability of building materials favors the development of construction; availability of conditions for the production of all types of food, which will provide an opportunity for the country's self-sufficiency in food and its supply to the external market; recreation of the Great Silk Road and those ambitious tasks that today are set in the direction of expanding the base for tourism - hotels, transport, roads. The expected flow of tourists will generate the tourism industry, will be a solid source of income for the country; rational use of geopolitical location will provide a significant contribution to the income of the country. Of course, it must be borne in mind that foreign trade is changing under the influence of the scientific and technological revolution of geopolitical and economic factors occurring in the world.

For the development of an economy that satisfies the requirements of the world market, it is necessary to ensure growth conditions from both the internal and external environment. Only their joint consideration will make it possible to outline the changes that are required for the implementation of bills for the development of the economy in market relations. Among these conditions it can be noted: the need to assess with a sufficient degree of reliability of natural, material and labor resources, as well as the natural and climatic conditions that characterize the main motive of economic activity; the need to assess the current state of the economy and identify the main directions of change (taking into account the internal and external environment) for economic growth; evaluation of economic, legal, political systems and the possibility of practical implementation of economic changes in the country; assessment of the country's participation in international trade, conditions conducive to increasing demand. At the present stage, for the development of international trade, Azerbaijan has good starting points: the presence of natural resources and climatic conditions, a relatively developed industry, a certain scientific and technical potential, a sufficiently skilled labor force. The political and legal foundations for the stability of the country have been created. Therefore, the state is capable of changing the country's economy to the extent that the world economy demands, into the integration with which the republic seeks. Already now, it is possible to overcome to a certain extent those obstacles that exist in the field of foreign trade. These conditions are created by the development of small and medium-sized businesses and the increase in oil exports. To promote equilibrium between exports and imports, it is necessary to attract large capitals in the manufacturing industries. For the practical implementation of this event, the state should privatize individual monopolies, the financing of which it cannot assume in full or in part. Better use of the geographic environment by expanding the development of tourism can be a source of attracting additional funds from abroad, which can be used to import the necessary machinery, equipment and technology. The growth of export capacity is determined by the development of industries involving the involvement of natural resources - this is the oil and gas industry. At the same time, if the development of this industry is consistently transferred to international principles in the field of organization and management, then we can ensure its effective functioning. Azerbaijan is one of the first in terms of economic growth in the world. A successful oil-based oil strategy was modernized, a non-oil economy developed, social welfare improved, assets backed by assets, and strategic foreign exchange reserves that exceeded GDP. It should be noted that in 2017 the foreign trade turnover of Azerbaijan amounted to 22 billion 593 million 631.99 thousand dollars. At the same time, exports for the reporting year amounted to 13 billion 811 million 624.44 thousand dollars, import - 8 billion 782 million 7.55 thousand dollars. According to the Customs Committee, in January-September 2018, Azerbaijan exported 21,945,925 tons of crude oil and crude oil products derived from bituminous minerals. For the first 9 months of this year, the volume of exported products in annual comparison increased by 43%, the cost - approximately doubled. Exports of crude oil and crude petroleum products derived from bituminous minerals amounted to 81.18% of total exports of Azerbaijan. In recent decades, Azerbaijan has been a supporter of organizations conducting various events. Azerbaijan is also the initiator and participant of important projects. For its strategic role as a natural bridge between Europe and Asia, Azerbaijan has always been an active participant and an important initiator of projects of regional and interregional cooperation. Today, Azerbaijan participates in the implementation of a number of key projects on the development of transport corridors East-West and North-South. The introduction of the Baku-Tbilisi-Kars strategic railway connecting Azerbaijan, Georgia and Turkey within the East-West international transport corridor will facilitate regional trade by providing cross-border rail links between East and West. The first container train to Europe from Central Asia, the Caspian Sea, Azerbaijan, Georgia was launched in 2016. This proven railway train, which proves that the transit route can be reduced from 30 to 35 days to 15 days, is another major

project with a capacity of 25 million tons per year, the largest and multi-purpose port on the Caspian Sea - the New Baku International Sea Trade Port (Alat). Located near the railway crossings of the Alat port with Russia and Iran, as well as near Baku airport, it allows it to cross other ports of the Caspian Sea with an efficient railway and regional coastal zone and unlimited access to remote regions. Azerbaijan is also one of the active initiators of the international North-South corridor, which will provide transportation of goods from Northern Europe and Russia to the Persian Gulf, India and other countries. Construction work on the Qazvin-Rasht section of the Qazvin-Rasht-Astara railway (Iran) has been completed. The Astara-Astara section (as well as the Iranian border) and the railway bridge across the Astara River were completed on the Astara (Azerbaijan) railway. The construction of the Rasht-Astar part of the missing part is still completed, and Azerbaijan has allocated funds. Once the project is successfully commissioned, it will make a significant contribution to regional cooperation by joining the railways of Azerbaijan, Russia and Iran. Thanks to the initiation and implementation of projects in the field of sustainable energy, Azerbaijan recognized itself as an energy supplier and has become an important bridge between Asia and Europe. Today, Azerbaijan is one of the largest infrastructure and energy projects in Europe, the Southern Gas Corridor and its two main parts, the Trans-Anatolian Pipeline and the Adriatic Pipeline, which provide transportation of hydrocarbons from the Caspian basin. Decree of the President of the country 2020: "Looking into the future" The development concept is an indicator of the beginning of a new stage of development in the country. The main strategic goal of the concept was to achieve sustainable economic growth and high social welfare, effective government and the rule of law, the full implementation of all human rights and freedoms and the active status of civil society in the social life of the country, taking into account the available resources and resources. It can be noted that for the first 9 months of 2018, the following indicators were observed:

- In general, the growth of the non-oil sector amounted to 2.5%
- Non-oil industry growth 3.1%
- Agricultural production increased by 2.8%
- Azerbaijan's foreign trade turnover increased by 7%
- Trade surplus amounted to 4.4 billion dollars

In January-November of this year, foreign enterprises and companies allocated Azerbaijan a total of 4 billion 754 million manat. According to the State Statistics Committee, 3 billion 838 million manat (80.7%) of the funds allocated by foreign countries and international organizations, which accounted for investors from the United Kingdom of Great Britain, Switzerland, Turkey, Malaysia, USA, Japan, Russia, Iran and the Czech Republic. Note that the amount of funds invested in the country from domestic sources is much larger. A total of 12 billion 899 million manat was invested in the main capital from all financial sources in January-November 2018 for the development of the economic and social spheres of the country. This is 8.8% less than the same period last year. The volume of funds channeled into the fixed capital of their domestic resources amounts to 63.1% of the total investments. Besides to oil, oil products and natural gas, Azerbaijan can provide products of the chemical industry — iodine and bromine, non-ferrous metals, aluminum, copper, mercury, to the external market. From time immemorial, Azerbaijani handmade carpets, garments, and crafts have been valued throughout the world. There are interest in the world market: cotton, tobacco, tea, fruit and others. One of the factors contributing to the recognition of priority in trade operations with more developed countries is modern technology and technology, allowing for faster improvement of production technology. For the development of foreign economic relations, the production policy must ensure that the distribution of natural and industrial resources so that they are agreed and basic needs. To create such conditions, the republic has great potential: excellent climatic and soil conditions for growing crops, large reserves of high-quality oil and

natural gas, and rich mineral resources. Investments in the development of tourism can be more efficient than, say, oil. Therefore, it is necessary to find more efficient ways to expand exports. One of the most positive factors is that domestic investment accounts for about 70 percent of the total portfolio. The experience of developed countries shows that the private sector plays an important role in gross domestic product. The development of the private sector demonstrates the positive legitimacy of economic processes. Formation of 83% of the Azerbaijani economy in the private sector is an indicator of the development trend. At the present stage, the economic development of Azerbaijan is largely determined by the globalization processes in the world economy. Its internationalization and the challenge of globalization reinforces the need to increase the openness of the national economy of Azerbaijan, the formation of extensive economic ties. Transformation and globalization processes are a difficult and painful period for any national economy, including Azerbaijan, but at the present stage this process corresponds to the leading trends of world development and simultaneously meets to some extent the national interests of each individual country in the world. The openness of the economy, its integration into the world make an increased demand for the use of the principles of the functioning of the world economy. First of all, it is the creation of all the necessary organizational and legal conditions. At the same time, the creation of business information services and their interaction with similar organizations in other countries may have a major role in the development of the world market. In the search for reliable partners, identifying their needs, such services, as the practice of foreign countries shows, to a significant extent predetermine the success of trade relations. The strategy for the development of foreign economic relations of Azerbaijan involves both taking into account the natural and economic conditions, as well as strengthening rational, equal and beneficial relations with the states of the world.

3. CONCLUSION

In modern conditions, involvement in world economic relations is becoming an indispensable condition for the full development of the country. Foreign economic activity in conditions of economic independence harbors a large reserve of its impact both on the domestic market and on the involvement of the republic in the international division of labor. The main ways of developing foreign economic relations are the dynamic development of the economy and increasing its efficiency. This refers not only to the development of the production potential, but also to preserve the environment, improve working conditions and the life of the population. The greatest advantage of the development of international trade is that, giving the country the opportunity to sell and buy, it allows to evaluate the processes and activities associated with them, to make a fairly reasonable and correct decision regarding the development of the country's export potential.

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STATISTICAL ANALYSIS OF EMPLOYMENT AND UNEMPLOYMENT IN AZERBAIJAN

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ABSTRACT
Like any other market, labor market is also determined by supply and demand. Using statistical methods, the author evaluates the labor resources in Azerbaijan and reveals the dynamics of the employed and unemployed population.
Keywords: *labor market, labor resources, unemployment rate, employment, economic activity, working age, International Labor Organization*

1. INTRODUCTION

One of the main categories of labor statistics is labor resources. This is the potential indicator of the proportion of population that is capable of working. The country's labor resources include primarily employed and unemployed, as well as the able-bodied population, which in the study period does not work and look for work for one reason or another. In addition to above listed categories of population,the labor resources include people who are able-bodied to study without a job.

2. POPULATION AND LABOR RESOURCES OF AZERBAIJAN

According to the methodology of the International Labor Organization(ILO), the sources of formation of labor resources are[Bashkatov B.(2001) Internatonal Labor Statistics, p-47]:

- able-bodied population of working age;
- working people of retirement age
- working adolescents.

In statistical practice, a variety of absolute and relative indicators are used to assess the labor resources and economic population. These include the following[Gusarov V. (2006).Statistics, pp-228-230]:

- total number of labor resources;
- intensity of reproduction of labor resources;
- coefficients of the total and pension load of the working-age population;
- coefficients of working capacity of the total population and the working-age population;
- employment rates of the total population and working age population and etc.

And for the forecast calculation in the perspective of the number of labor resources(**LR)**, you can use the following statistical model[Bashkatov B. (2001) Internatonal Labor Statistics, p-55]:

$$\boldsymbol{LR_t = P_0 \cdot (1 + C_n)^t \cdot d_{wp} \cdot C_{wpw}}$$

where

$\boldsymbol{P_0}$-population size at the beginning of the source year;
$\boldsymbol{C_n}$-coefficient of natural population change;

t-the number of years in the forecast year;
d_{wp}- proportion of the working population in the total population;
C_{wpw}-coefficient of working capacity of population at working age.

In the composition of the entire population, the economically active population attracts special attention .It is this category of population that participates in the creation of a social product. In order to assess the economic activity of the population, first of all we analyze the composition and structure of the population in terms of working capacity. For this purpose, using statistical data, we will build a table 1.

Table 1: Population size and labor resources of Azerbaijan(in thousands)[5]

Year / Indicators	2003	2017
Population size	8269,2	9810,0
The population in working age	5206,4	6705,5
Able-bodied population of working age	4767,1	6262,2
The number of labor resources	4923,0	6408,1
Natural population growth	64,5	86,9

From the analysis of the data in the table 1, it follows that in comparison with 2003, in 2017 the number of able-bodied population of working age increased by 28.8%.During the studied period, the share of working age population in the total population increased by 5.4 percentage points. At the same time, the share of able-bodied persons of working age in the total population of working age people increased by 1.8 percentage points. For the studied period dynamics of labor resources of the country accounted for 30.2%.Good results show natural growth rate of population: per thousand people natural growth rate increased from 7.9% to 8.9%.

3. LABOR MARKET AFTER 5 YEARS

The main source of labor resources in Azerbaijan, as in any other country, is able-bodied population of working age. Therefore, the prospective population of this category is of great importance. To calculate the prospective "able-bodied population of working age" for the next five years, we use the statistical model[1] and data from table 1 and obtain the following result:

$$LR_5 = 9810,0 \cdot (1 + 0,0089)^5 \cdot 0,684 \cdot 0,934 = 6551,1 \; thousand \; people$$

The calculation results show that by 2022 the number of able-bodied working- age population in Azerbaijan is expected to increase by 288,9 thousand people compared to 2017.This means that in 5 years changes are expected in the population structure, that is, the proportion of the population at retirement age will decrease. Under market conditions, a part of labor resources realizes its labor potential through the labor market. Labor market participants are employed and unemployed. The first of them represent the volume of labor resources, which in the study period are engaged in the realization of their labor opportunities, and the latter represent the volume of labor resources that are looking for ways to realize their labor opportunities.

4. UNEMPLOYMENT AND EMPLOYMENT RATES

Along with absolute indicators, the unemployment and employment rates are used to assess the situation on the labor market. These relative indicators are defined as the proportion of the relevant category of labor resources in the economically active population at the beginning

(end) of the period .For the analysis of the level and dynamics of economic activity, employment and unemployment, let's consider the data in table 2.

Table 2: Economically active population, employed and unemployed in Azerbaijan(in thousands)[5]

Indicators	2003	2010	2015	2017
Average annual population size	8309.2	9054.4	9649.3	9854.1
Economically active population	4373.5	4587.4	4915.3	5073.8
Employed in the economy	3972.6	4329.1	4671.6	4822.1
Unemployed	400.9	258.3	243.7	251.7
Employment rate of the entire population,%	47.8	47.8	48.4	48.9
Employment rate,%	90.8	94.4	95.0	95.0
The level of economic activity of the population,%	52.6	50.7	50.9	51.5
Unemployment rate,%[1]	9.2	5.6	5.0	5.0

The study of absolute and relative data in table 2 shows that the share of employed population in the total population compared with 2003 in 2017 increased by 1.1 percentage points. The level of economic activity of the entire population for the study period decreased by 1.1%.The calculation shows that the unemployment rate in Azerbaijan from 2003 to 2008 exceeded the natural rate (6%)[2].Since 2009, this indicator is within the natural rate of unemployment. During the studied period, the employment rate in relation to the active population grew by 4.2%, while the dynamics of employment in absolute terms accounted for 849.5 thousand people. As a result, the dynamics of the economic activity of labor resources lags behind the numerical dynamics of the labor resources themselves.

Table 3: Growth rate of labor market indicators from 2003 to 2017 in Azerbaijan(%)

Indicators	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Labor resources	100,5	102,0	108,0	102,7	102,4	102,0	101,7	101,7	101,4	101,1	102,5	99,4	100,8	100,2	100,9
Economically active population	100,1	99,8	100,3	100,5	100,9	100,8	101,2	101,2	100,8	101,3	101,5	101,7	101,5	102,0	101,2
Employed	101,0	101,1	101,1	101,2	101,3	101,3	101,3	101,3	101,1	101,6	101,7	101,8	101,5	101,9	101,3
Unemployed	91,4	87,0	91,1	91,6	96,5	93,3	99,2	99,3	97,1	96,9	97,3	100,5	102,5	103,7	99,6

(The table is based on official statistical data by author)

Table 3 shows the growth rates of main indicators of the labor market in Azerbaijan from 2003 to 2017, based on official statistical data. During the studied period, the highest growth rate of labor resources was observed in 2005 compared to 2004, and the total number of labor resources increased by 8%.The negative growth rate of labor resources was observed in 2014 compared to 2013.This year, the number of labor resources decreased by 0.6%. The number of labor resources of Azerbaijan on average increased by 1.8% annually. Average annual growth rate of economically active population accounted for approximately 1%. As for the number of employed, annual growth rate comprised 1.3%, and it was about 59.3 thousand people annually. However, the number of unemployed showed average annual decline of 3.6%. The data in Table 3 can be represented on Figure 1.

[1] https://www.ilo.org/ilostat/faces/wcnav_default
[2] https://www.azstat.org/portal/tblInfo/TblInfoList.do

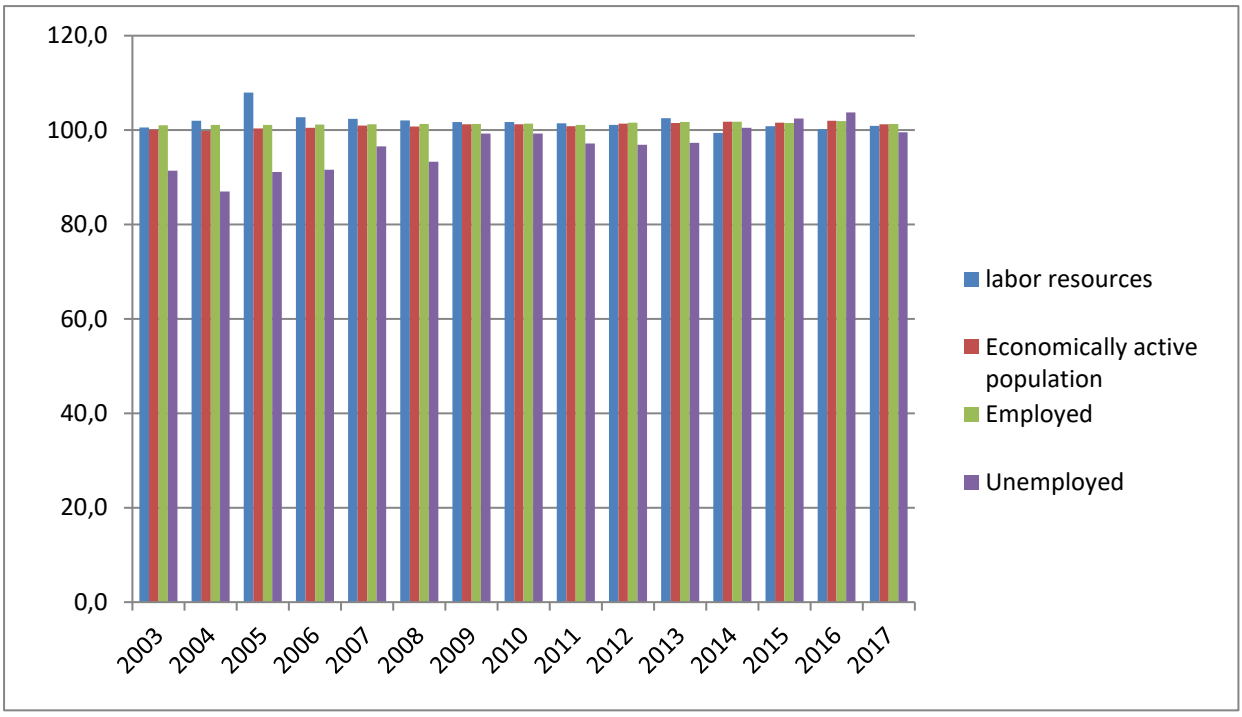


Figure 1: Growth rate of labor market indicators from 2003 to 2017 in Azerbaijan

5. CONCLUSION

Since 2003, in Azerbaijan, the unemployment rate is estimated not only by the number of officially registered unemployed population, but also by ILO methodology. For this, by ILO methodology population surveys on employment issues are conducted annually. The number of unemployed from 2003 to 2017 decreased by 149.2 thousand people and accounted for 251.7 thousand people. An important role in reducing the number of unemployed is played by the successfully pursued state employment politics. Thus, a statistical analysis of the composition of population and labor resources shows that despite the fact that in 2017 labor resources made up almost 65.3%(6408.1/9810.0) of the total population, the employment rate for labor resources was 75.3%(4822.1/6408.1).From this, it follows that in the study period, almost a quarter of the labor resources in the labor process did not participate. We assume that in order to increase the level of economic activity and employment of the population in the country, it is necessary to increase the level of joint action of employment services, personnel departments of economic entities and educational institutions.

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ROLE OF TOURISM IN SOCIAL DEVELOPMENT OF THE REPUBLIC OF AZERBAIJAN

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ABSTRACT
Recently, tourism industry plays a particular place in Azerbaijan. Tourism in the framework of strategic roadmap of national economy is considered a priority area of national economy. The following words of Ilham Aliyev, the president of the Republic of Azerbaijan proves this: "In the beginning Azerbaijan was famous for its gas and oil. I intend Azerbaijan to be famous for its picturesqueness and comfortableness for gaining fame as a tourism centre". The role of tourism in social development covers the urgency of a study subject. The studies directed to learn the role of tourism in economic development of the country were aimed to ascertain the essential tendency of tourism industry and to offer favourable methods for the purpose of increasing the significance of tourism in national economy.
Keywords: *Azerbaijan, role of tourism, social economy, tourism*

1. INTRODUCTION

Tourism in Azerbaijan is one of the rapidly developing fields of economy. "Land of Fire" being relatively small is situated at the intersection between Europe and Asia, thus this makes its territory involve for development of touristic business. At the present time, incomes yielded by tourism are a little more than 10% of national economy. The quantity of tourists annually increases in amount of 15-20%. Tendency is sufficiently understandable: Optimal circumstance for any feast is allowed in Azerbaijan: nature twinkling with all colours of sunny Azerbaijan, golden beaches covered by warm waters of the Caspian Sea, shadowy forests of cold springs, rich wild nature, slender gazelles, fallow deer (hinds), exquisite pheasants, marvellous rocky mountains, mirror surface of lakes, delicate beams of southern sun, eastern hospitality of our people and ordinary Azerbaijani cuisine - all these aforesaid don't only attract those who desire to improve their health but also those who desire to recognize Azerbaijan, to take delight viewing unrepeatable colours and noteworthy sightseeing places, to live the charm of journeys and to regard today's amenity from the point of view of past. And therefore, sanatoria-recreation and excursion - tourism service in republic successfully develops and improves year after year.

2. SOCIAL-ECONOMIC SIGNIFICANCE OF TOURISM

Experience of the developed countries proves that one of forceful powers recently affecting the velocity of world economy is a field of tourism. Its development firmly influences on formation of budges of a receiving country and on stabilization of trade balance. One of the main problems facing Azerbaijani economy - a solution of the development issues of this field with a rational use of the oil revenues to ensure a country's development. It should be also noticed that the high level of development at any country is achieved by only providing development of regions. Consequently, one of the priority fields of state policy is a development of non-oil sectors in republic. In modern age social-economic development of Azerbaijan is characterized with active formation of market infrastructure and a transition to new model if management. This goal has been dedicated to one of the essential components of social-economic policy of regions. However, permanent attention is focused on activity of infrastructure in regions because of social-economic development policy being complicated. Under the requirements of the present time, the most purposeful method is to compile and draft various programs and

projects to attain a long-termed development of the republic. The existence of geographic, economic and natural resources in Azerbaijan has an initial significance for further development of region. But the attained achievements don't completely reflect a rational exploitation the current potential of regions. Proportional development of the non-oil sector allows for constant economic development by protecting only macroeconomic stability. Development of social field is one of the most eminent factors of betterment of economic situation, empowerment for people to gain incomes and the subsequent reduction of poverty. Currently, it is possible to achieve an expedited development in different fields of industry and agriculture by using potential existed in republic more affordably. All-embraced economic development of the country, entrepreneurship support, an increase of people's living level and solution of poverty issues cover the most significant governmental issues on the agenda. And the issues on re-structuration and improvement are maintained for duly and successful solutions of issues or matters related to this context stipulated in state programs all regions. At present times, formation of infrastructure in the country, promotion of the existing potential in global economic space, and especially development of non-oil area are hugely paid attention. The explorations held in the country and reports from foreign countries show that tourism is one of the most perspective sectors having the highest potential. Legislation on development of this field is further improved, and various precautions are taken to involve investment. Making certain investments on development of tourism industry in republic, the constant revenues are yielded at local and central budges. Development of tourism industry in Azerbaijan as in other several countries affects in forming budget. As it appeared in world experience, one of the most significant factors of development of tourism industry is an adoption of normative-legal instruments that regulates this field, a development of little and medium business and a creation of convenient environments. These are the most essential factors for entrepreneurs to attract for development of non-oil sector and creation of conditions of the country in the regions. Works held within framework of the second State Program (2009-2013) on development of social-economic regions of the Republic of Azerbaijan and the second State Program (2010-2014) on development of tourism of the Republic of Azerbaijan are highly carried out in Shaki-Zagatala economic region as in all regions. Balakan, Zagatala, Gakh, Shaki, Oghuz and Gabala are included to Shaki - Zagatala economic regions. These economic regions have mineral raw materials and are specified with rich flora and fauna, a plenty of underground and surface therapeutic water resources and favourable climatic condition. There are broad opportunities to create recreational zones and tourism vacation at the abovementioned economic regions, including development of tourism. Betterment of unsuccessful families and provision of old persons by means of development of affordable social defensive system is one of main criteria. As social infrastructural development is gradually increased, the quality of base services rises in other fields of education, science, health and environment. Poverty level in Azerbaijan in 2017 in comparison of 2014 has increased twice, and poverty level has been diminished from 28% to 6%. This indicates that the state makes opportunities for levelling up life conditions of people. While improving life conditions, poverty level is gradually reduced.

3. TOURISM IN AZERBAIJAN AS A SOCIAL FACILITY

Modern Azerbaijan - is a country where the urgent measures are taken to expedite rate of economic development through tourism. Law on tourism adopted in 1990, state programs on development of tourism, and other law and regulations applied in the country are possible to include to normative-legal acts aiding to reach the goal. The country takes an active part at international tourism events and relations are established with many countries in the field of tourism. Touristic potential of Azerbaijan are regularly disseminated on different foreign channels. Moreover, the amount of accommodation facilities for tourism increases. The number of foreign tourists visiting to Azerbaijan within period 2010-2013 has increased.

Increase rate became 27%. Their number reducing slightly within period of 2014-2015 reached to 2 006 200 people. It was recorded that an increase had become 20 percent in 2016, the number of tourists who visited to Azerbaijan reaching to 2.691,998 people had become 20 percent in 2017, and an increase in 20 percent was recorded in the tourist flow to our country. An increase in number of tourists visiting from separate states was recorded as follows: The Russian Federation - 853 082, Georgia - 537 710, Iran - 362 597, Turkey - 301 553, United Arab Emirates (UAE) - 102 360, Iraq - 62 454, Ukraine - 57 756, Saudi Arabia - 33 273, other countries - 381 213. The proportion of citizens of Russia, Georgia, Iran, Turkey and UAE was more in general number of foreign citizens visited to our country in 2017 and accordingly it became 31.6%, 19.9%, 13.4%, 11.2% and 3.8% (12). It is denoted in statistics that the number of Azerbaijanis travelling to other countries has genuinely increased twice more than the number of foreign guests in Azerbaijan. Concurrently, we have observed a decrease in their number within last two years. We may note changes occurred in the economic and political life all over the world by learning the reasons for the decrease of indicators. Different types of tourism are chosen in the economic literature: recreational, scientific, business, entertainment tourism, etc. It is possible to claim that most travellers of Azerbaijan in 2015 have visited to entertain. Their number was recorded to 668,800 people. The country actively contributes to develop business tourism. The least number of tourists has visited to our country with medical and religious goals. It is known that development of tourism industry allows for increasing employment and population in the country. Increase in the number of businessmen in Azerbaijan is detected. Their number has become 61,500 people in 2015, 68,500 in 2016 and 73,500 in 2017. At recent time the revenue gained through tourism sector is 2,437,300,000 manat.

4. SOCIAL PRIORITIES

Azerbaijan has become relatively new member of global tourism industry, but notwithstanding, this has not impeded it to gain good achievements in modern filed. Since 1993, Azerbaijan is sure for actions of country's government and the large financial-industrial corporations in developed countries have aimed their interests to Azerbaijan having rare tourism potential. The country by regulating legal relations in the field of international tourism in 2001 and relating the functions of governments of world countries at a certain extent has jointed to the World Tourism Organization attached to United Nations Organizations (UNO). This organization also analyses development tendencies international tourism market and supervises them. In 2004, the Ministry of Culture and Tourism of the Republic has compiled the logotype and slogan to draw attraction of foreign tourists. Slogan is sounded as: "Azerbaijan – European Charm of the East", "Formation of estimation relations to historical roots, mentality and culture". This slogan reflects combination of location of the country in two continents and its rich eastern culture with living level of Europa. The main tourism slogan of Azerbaijan is broadcasted in advertisements (video clips) on televisions "EuroNews" and "CNN" into English and dubbed as "Azerbaijan – European Charm of the East". It is obvious that an expression "advertisement" mentioned above is able to attract both European and Asian tourists. However, flow of western tourists for Azerbaijan has a priority because this is the most profitable and promising. In addition, Azerbaijan is recognized as "Land of Fire" abroad and because a name of the country is translated from Persian language like this. As in previous years, majority of the foreign citizens who visited Azerbaijan were citizens of Russia, Georgia and Turkey. An increase in the number of tourists from France, Spain, Norway, Greece, Croatia, Great Britain, Germany and Belgium and Europe and some other countries all over the world was observed. But the flow of citizens from Russian Federation, Ukraine and Iran to Azerbaijan reduced for several reasons (devaluation of Russian rubble, unstable political situation of Ukraine and socio-economic tensions in Iran).

Azerbaijan has great potential to develop tourism in all types. Except that one of the most developed fields in recent time is a cultural tourism because in Azerbaijan there are sufficiently notable cultural places and numerous cultural monuments. Probably, Azerbaijan should use the experience of countries been able to make a success of the negative results of financial crisis and to retain European clients in their own recreational and tourism centres by virtue of their rapid economic policies. For the first, among these are Turkey and Egypt which continue to fill or draw up the state budgets with foreign tourists. All initial conditions are available for the development of ecological, ethnographic and sport tourism in the country. At current time, it can be surely expressed that Azerbaijan has already become a specific part of global international tourism, and large investments made to Azerbaijani tourism, the increase in the number of foreign tourists who visited the country and at last, the expensive projects to build new tourist complexes financed by foreign investors prove this situation. However, popularization of Azerbaijan in tourism world depends on development rates of tourism-recreational system of this country. One of the factors to attract foreign tourists is an aimed element to international tourism incidents (activities). International tourism has been worthily represented in Azerbaijan. Because various sport, political, economic and cultural events including the Judo European Championships, world championships in chess and wrestling, Baku musical jazz festivals, are frequently held in the country. The essence of tourism field for Azerbaijan is noted under legislation: Principles of state police aimed to constitute legal basis of tourism market and bases of tourism activity are determined in law "On Tourism" in Azerbaijan, relations or attitudes raised in tourism field are regulated, rule of profitable use of nature reserve tourism is defined as one of means of social-economic development provision. "Increasing level of education, culture and developing cultural relations in multinational society are more affordable methods to establish tolerant society". During last years, international events held in the territory of the republic prove development perspectives of international tourism in Azerbaijan and allows for new opportunities in tourism field.

5. TOURISM REQUIREMENT BY SOCIAL GROUPS

As tour operators say, the main part of tourist flow visiting Azerbaijan is comprised of independent travellers (almost the ones who conduct individual trips) as well as business travellers. Nevertheless, they notice that a classic tourist flow from Russia to Azerbaijan increases year after year and Azerbaijan becomes more popular. The number of tourist more than 7% in 2017 visited resorts of Azerbaijan comparing in 2016. Many tourists prefer recreational organized in Azerbaijan, because in this case hotel reservation, purchase of air-flight tickets and solution of insurance problems are not required. Price of package tours may be cheaper than the price of independent recreation. During the recent years, Azerbaijan has a great effort for development of tourism sector of the country: infrastructures of resorts improve, modern residences (dwelling facilities) and various areas of tourism increase. Currently, the country offers curious excursion routes, sanatory-resort and beach recreations, and modern mountain ski routes. Tour operators foresee the direction of well perspectives. So that touristic operator ICS Travel Group plans to expand its activity, to apply new tourism programs and hotels-reservation service for tourists. Popularization of beach resorts of Russia in Azerbaijan has also been recorder by experts of ALEAN tour operator. Tour operators among the most famous ones from such kinds of places for tourists mention Novkhani, Shikhov, Bilgah resort settlements. The average price of a 7-day tour per person last summer became in amount 35,000 rubles (such as feeding). According to the information of "Russian expression", tourists use the short-term tours in recreations and on holidays. This causes the cheap routes from different cities of the country. "Therapeutic tourism in Azerbaijan is also popular among clients of therapeutic tour operator "Naftalan resort" having non-analogue" experts of "Russian Express" denotes.

ALEAN National tour operator totally meets requirement of Russian sanatoriums, especially of sanatory-resorts treatment in Naftalan. Average period of recreation in Naftalan lasts 10-14 days. Due to the information of the Ministry of Culture and Tourism of Azerbaijan, general number of foreign tourists visiting the country during 10 months in 2017 was 2, 27 million people by ascending 20,1%. In relation with analogical period of the final year, Russia, Iran and United Arab Emirates were among the countries indicating more increase at tourist flow. In this case, tourists from Russia prevail or hold the first place comparing "their competitors" with great difference: 727 577 of Russian citizens have visited Azerbaijan from January to October. The above-mentioned number of these tourists is 30%. Tourists from Georgia take the second place (439 305 tourists). Then it follows with Iran (320 904), Turkey (249 210), United Arab Emirates (81 742), Iraq (54 242), Ukraine (49 809) and Saudi Arabia (31 821).

6. DEMOGRAPHIC CONSISTENT AND HUMAN POTENTIAL OF TOURISM IN REGIONS

Demographic situation in Azerbaijan is specified with significant differences in nature of natural restoring character of the people on various regions. There exist high level of parity (birth rate) of population reproduction in the demographic development (2013, 18%) of the country, low death level (2103, 6,3%), the continuous decrease of parity (birth rate) as a significant growth of population and workforce besides available circumstances, stabilization of death phase, increase of death phase at several groups of age due to certain reasons, reduction of average life period in rural regions, tendencies like weak area of people and professional movement. The current demographic situation in Azerbaijan ensures higher growth rates of people and labour resources than the Caucasian republics. Hereby, the number of Georgian population has dropped to 400 thousand people, Armenian population 750 thousand people and Azerbaijani population 750 thousand people. High growth of population is mainly considerer to rural areas, which is provided by a number of social, economic and psychological factors, the living and working conditions of the population resided there, and stable reproductive traditions and relevant reproductive instructions. Though the rural population absolutely increases, its share in the number of the country's population gradually decreases. The increase in the number of rural population is related to the parity, which is more than in urban areas (1.2 times) as a rule, but is also observed by a high rate of decrease in comparison with the city. This case is initially construed by the high level of urbanization (the proportion of urban population in Azerbaijan was 51.7% in 2013) and the expansion of effect of urban lifestyle on the village. The structure of the rural population is formed due to the influence of national traditions, the high rate of parity, poor migration stability, and the low index in divorce determine the number of families with three or more children (2,15 in urban areas, 2,52 in rural areas). In modern situation, an equalizing process of parity between urban and rural regions is sufficiently regular in all economic regions. If the urban population was 7.1 more in 1990, it was 2.6 (1000) in 2013. But in some regions the decrease level was lower than in urban areas due to some social factors and economic reasons. Within period of the reporting, the decrease of the general reproduction ratio of the rural population occurred more intensive than the urban population. Hereby, reproduction ratio of urban population has decreased 30,7% within 1994-2013 and 40% in rural area. The study of this problem reflects the natural process of decreasing parity in rural areas that this indicates a transition to a new lifestyle and population reproductive samples, and this is a result of social-economic factors covering not only structural and demographic (age structure of women in fertility, gender and marriage structure, divorce ratio, migration), but also the material and spiritual level of life, the women's employment in production, their ethnic affiliation, and et cetera. Participation of women in labour life and education level are the factors defining their generative interaction. Census and analysis of social resources in 1999 indicate that women with children from unemployed people in rural regions are more, most of

them are local people (90% manpower working in housing). Women's employment in production is one of the significant factors that have an effect on decrease of fertility level. High rate of the generated demographic situation and women's labour resources are conditioning the need to enhance employment field of women in rural area. In other sense, they require improvement of non-productive field, trade and service area, health, children's and pre-education institutions in regions where parity is more. So this is necessary for solution of involvement problem of woman's labour in manufacturing. Study of tendencies in the anticipated life period (life expectancy) between urban and rural population constitutes the first situation to complete the purposed demographic policy in regions. Because, this actually specifies the gained living level or standard, and reflects several factors that have an effect on people's health and work (life and labour condition). As urbanization is improved, the significant progresses happen on elimination of differences between cities and villages in Azerbaijan and at the same time, the problems arise in regard with the social-hygienic and other living places. Comparison of average life expectancy indicators proves the existence of two controversial tendencies recorded in urban and rural regions. Especially during this period, this is decreased in villages increasing in the cities. But the existing diversity (8,4 years) between village and city during the anticipated life period was totally eliminated at recent times and had a little diversity (0,2 years). Convergence of the general indicators of death and birth rate of urban and rural population allows us for judging or reasoning on some advantages and drawbacks (deficits) of rural lifestyles. So, the significant progress in reduction of child's death rate was recorded in the cities. Its level depends on the most social-economic development factors: existence of professional medical aid, childcare facility, development of dwelling places and material situation of family with child. The working nature of the employing people, its professional status significantly affects the mortality rate. Exploration shows that mortality or death rate between the people engaging with manual labour is more than the people involving in mental labour. But men and women engaging with mental work has more mortality rate in rural areas comparing with those in the city. But this mortality rate is more among the people engaging with manual labour adversely in the villages. This case in women is more than men. As result, it is related to the more affordable effect on woman's healthcare with strenuous situation of agricultural labour. Future development of agriculture in the participation of rural people at non-agricultural sector will require attention to the problems on the attainment of necessary knowledge and experience on industrial labour of youth, an adaptation of apportioned labour resources to requirements of industrial and constructional production and enhancement of employees' level in education. The certain impact on decrease of living standards in rural areas is associated with the migration of young people (mainly of men) to cities. The reason of this process is related with the social-economic development of rural areas as well as a lag of the industrial and social infrastructural level. Hereby, this leads the age of rural population to be relatively deteriorated and its aging, and consequently causes to increase of general mortality rate. Unadjusted flow of rural people has a negative effect on growth in population particularly within high labour activity. Urban population, especially growth of death possibility after the age of 30 among men is construed with high density of people, stresses, pollution of environment and others. It is known that large-scaled technology increases demand to the especially employees of high mechanised and the advanced speciality. At the same time, the suitable conditions are created for the spread of neurogenic diseases, namely, cardiovascular, psycho-neurological and oncological diseases under the circumstance of urbanized environments. If the level of needs is provided and the temporary fund leaves behind the increased power consumption, in other sense, workforce is not completely restored, an employee's health will be spoiled and his/her disease and death risk will rise. Lower death phase of village residents and relatively long-life period is a gathering factor and informs on priorities of rural lifestyle contributing to recovery of health and causing to longevity.

At the same time, the seasonality of agricultural works is selected for a deficit of high-quality medical assistance, lower cultural levels and lack of common sanitarian-hygienic behaviors comparing with a city. Improving healthcare of people, especially the working people, and reducing economic losses is one of the most important issues of demographic policy. Rational concentrations of industrial production in small and medium cities will become more eminent in future, and will shaped to economic and cultural centres where the opportunities will be created to combine the village of favourable living conditions with the urban environment. Growth of modern agricultural production dictates new requirements to employee's quality. In its turn, a rise of possible labour conditions and labour charges, creation of condition to evolve employees' physical and spiritual abilities more completely, increase of production profitability and elimination of diversities between mental and physical labours equalize a living level of rural and urban population.

7. ANALYSE OF SOCIAL STATUS OF TOURISM EMPLOYEES

The Ministry of Youth, Sports and Tourism of the Republic of Azerbaijan fulfils consecutive works aimed to expand corporation in international tourism field. Firstly, the Republic of Azerbaijan was adopted as full-fledged member to the World Tourism Organization in September, 2001. This granting the right to vote in General Assembly of the WTO, to participate in all events of this organization, and using the experience of leading countries in tourism field bestowed an opportunity to integrate into world tourism society. Multi-purposed relations in tourism field in corporation with membership of the World Tourism Organization are established and contributed by Organization of the Islamic Conference, Organization of the Black Sea Economic Cooperation, GUAM, Economic Corporation Organization, ESCAP (Economic and Social Commission for Asia and the Pacific), Organization for Economic Co-operation and Development-OECD, tourism council of Commonwealth of Independent States and other regional and global organizations. For instance, the representatives of the ministry of youth, sports and tourism have participated in the 15th Beijing session of General Assembly of the World Tourism Organization, in the conferences of ministers of Organization of the Islamic Conference in Saudi Arabia and Malaysia and the meetings held by working groups of the countries of Organization of the Black Sea Economic Cooperation. Considering special role of personnel and their proficiencies to develop tourism in modern age, this issue has always been in centre of attraction of the ministry. Representatives of private sectors with collaborators of the ministry as well as students of relevant universities attend the course (intensive) on training of employees working in tourism field. In consideration of those mentioned above activity of TIKA, the Turkish company should be noted that the ministries constantly corporate in this field. Regarding the development of tourism, the establishment of a new tourism infrastructure in the regions, attraction of local and foreign investors to the regions, the establishment of new tourism institutions and opening of new jobs for the people on these bases are among the priorities of the Ministry of Youth, Sports and Tourism. To the end, collaborators of the head department in tourism employees have been assigned to 30 promising regions of the country, studied the landscape, and developed schematic maps to establish new tourism types in relation with development of tourism in regions. This work was summed up on the 15th of March in 2005. The next step intends to develop tourism zones and to attract investments to these zones. Besides, legal base should be founded and adopted relating to the events above mentioned for rationalization and maximal use of tourism zones and local opportunities by reckoning environment. The main criterion to use zones will be a development and betterment of social-economic status of regions. The richness and diversity of the regions make the extensive opportunities to develop different types of tourism. But local people having been involved in ecotourism for a long period, have spontaneously used this opportunity by offering accommodation, food, and sometimes excursion services for local and foreign tourists.

It is necessary to notice that incomes from ordinary business are not also earned by village residents who receive tourists but also by other residents of the village. This is because that neighbour villagers have a chance to offer to tourists their own agricultural products works of art.

8. CONSLUSION

Applying tourism in Azerbaijan we can come to conclusion that this sector has a priority in its essence in the country. The leadership of our country takes all necessary measures for the development of tourism by taking into consideration that the profitable development of any field demands for state support. These are included the adoption of the aimed programs, declaration of decrees, the opening of hotels, advertising of tourism potential of the country, participation in international events and etc. Increase in number of tourists leads to open new workplaces and rise of population. In the result, development of tourism industry enhances social-economic level of the country. Thus, Azerbaijan should maintain to develop tourism industry. To use experiences of countries that become a leading field of economy of tourism industry is offered for this reason.

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LINKING INNOVATION AND NATIONAL COMPETITIVENESS

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ABSTRACT

Today, companies and countries live in a fast changing and dynamic business environment. Being competitive and innovative is one of the main aims of each business and national economy. The quest for competitive advantage becomes even more crucial when we consider the strong impact of globalisation and the ongoing 4th Industrial Revolution. The author will be investigating the connection between innovation and competitiveness, accordingly to the global competitiveness index. Innovation will be defined based on the most recent 4th edition of the Oslo manual "An innovation is a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products and processes and that has been made available to potential users (product) or brought into use by the unit (process)." (OECD, Oslo manual, 4th Edition, 2018, p. 20.). In the paper competitiveness will be defined as "the set of institutions, policies and factors that determine the level of productivity of a country" as defined by The World Economic Forum (WEF), which has been measuring competitiveness among countries since 1979. Thought it's Global Competitiveness Index (GCI) The World Economic Forum assesses the competitiveness of 140 countries, providing valuable insights of each economy. Innovation and innovation activities are becoming one of the most important factors into achieving sustainable competitive advantage. In this paper the author will collect, compare, analyse and deduct the main indicators for competitiveness and innovation for the selected national economy - The Republic of Croatia. Competitiveness and innovation will also be analysed in terms of regional competitiveness based on the last EU Regional Competitiveness Index for 2016. The paper will investigate and furthermore analyse the strong linkage found between innovation and competitiveness for the selected national economy case.

Keywords: *competitiveness, competitiveness index, innovation, regional competitiveness, sustainable competitive advantage*

1. INTRODUCTION

Today, companies and countries live in a fast changing and dynamic business environment. Being competitive and innovative is one of the main aims of each economy. The quest for competitive advantage becomes even more crucial when we take in consideration the strong impact of globalisation and the new industrial revolution. Innovation and innovation activities are becoming one of the most important factors into achieving sustainable competitive advantage. In this paper the author will analyse, compare and deduct the innovation and competitiveness main indicators for the Republic of Croatia. Innovation will be defined as from the last Oslo manual (2018) and competitiveness will be defined through the Global Competitiveness Index and it's main twelve pillars. Innovation and competitiveness will be more overly analysed and connected thought the Global Competitiveness Index for Croatia and it's Innovation Ecosystem Pillar's including business dynamism and innovation capability factors for the Croatian national economy. EU Regional Competitiveness Index will also be taken into consideration and analysed based on the selected NUTS regions. The impact of innovation and it's connection with competitiveness indicators will be more overly analysed and investigated through the case of the Croatian national economy.

2. INNOVATION

What is innovation? When we analyse and define innovation, our guideline will be the Oslo's manual for measuring innovation which defines innovation and innovative activities. The Oslo manual is one of the most important international source of guidelines for the collection and use of data related to innovation activities in companies. The Oslo Manual had four editions until today: in 1992, 1997, 2005 and the most recent one published in October, 2018. "The first version of the Oslo Manual, issued in 1992, and the surveys undertaken using it, notably the Community Innovation Survey (CIS) organised by the EC, showed that it is possible to develop and collect data on the complex and differentiated process of innovation. The second edition of the manual takes the original framework of concepts, definitions and methodology and updates them to incorporate survey experience and improved understanding of the innovation process and also to take in a wider range of industries. It provides guidelines by which comparable innovation indicators can be developed in OECD countries, and discusses the analytical and policy problems to which the indicators are relevant. The Manual has two objectives: to provide a framework within which existing surveys can evolve towards comparability; and to assist newcomers to this important field." (OECD, Oslo Manual 2nd Edition, 2005, p. 6.) In the third Manual Edition innovation and the minimum innovation requirements are defined as follows. "An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations." (OECD, Oslo manual, 3rd Edition, 2005, p. 46.) " The minimum requirement for an innovation is that the product, process, marketing method or organisational method must be new (or significantly improved)to the firm. This includes products, processes and methods that firms are the first to develop and those that have been adopted from other firms or organisations." (OECD, Oslo manual, 3rd Edition, 2005, p. 46.). The new 4th edition of the Oslo manual redefine the definition of innovation. "An innovation is a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products and processes and that has been made available to potential users (product) or brought into use by the unit (process)." (OECD, Oslo manual, 4th Edition, 2018, p. 20.) The main difference between the last edition and the previous one's is the reduction of four innovation types to two main innovation types: product innovations and business process innovations. " A product innovation is a new or improved good or service that differs significantly from the firm's previous goods or services and that has been introduced on the market. A business process innovation is a new or improved business process for one or more business functions that differs significantly from the firm's previous business processes and that has been brought into use by the firm." (OECD, Oslo manual, 4th Edition, 2018, p. 21.). In this paper the author will refer to innovation mostly as it is defined by the Global Competitiveness Report, published by the World Economic Forum in 2017-2018. The competitiveness is measured by twelve pillars, where innovation is measured thought the Innovation Ecosystem environment - analysing Business Dynamism and Innovation Capability in it's 11th and 12th pillar. The pillar will be furthermore explained in the innovation and competitiveness section of this paper.

3. COMPETITIVENESS

What competitiveness is in today's turmoil economies? There are many definitions of what competitiveness is, in this paper we will define competitiveness as "the set of institutions, policies and factors that determine the level of productivity of a country" as defined by The World Economic Forum (WEF), which has been measuring competitiveness among countries since the year 1979. (World Economic Forum (WEF), 2016, https://www.weforum.org/agenda /2016/09/what-is-competitiveness/). Thought it's Global Competitiveness Index (GCI) The World Economic Forum assesses the competitiveness of 140 countries, providing valuable

insights of each economy. "There are a total of 98 indicators in the index, derived from a combination of data from international organizations as well as from the World Economic Forum's Executive Opinion Survey. These are organized into 12 pillars in the GCI 4.0, reflecting the extent and complexity of the drivers of productivity and the competitiveness ecosystem. These are: Institutions; Infrastructure; ICT adoption; Macroeconomic stability; Health; Skills; Product market; Labour market; Financial system; Market size; Business dynamism; and Innovation capability." (WEF, The Global Competitiveness Report, 2017-2018, p. 9.) According to the GC Report, United States o America, Singapore, Germany, Switzerland and Japan are the World's most competitive countries - when measured as by the Global Competitiveness Index. All five of them are ranked equal as in 2017, except Japan - which raised for three positions, improving it's competitiveness index in just one year. Croatia is ranked 68th, decreasing it's position for two places compared to year 2017. Croatia is the 68th most competitive nation in the world, according to the recent Report. Here is the statistics for Croatian Competitiveness Index trend from 2007 to 2018. (Trading Economics Website, Croatia Competitiveness Rank, https://tradingeconomics.com /croatia /competitiveness-rank/)



Figure 1: Croatian Competitiveness Trend
(Trading Economics Website, Croatia Competitiveness Rank, https://tradingeconomics.com/croatia/competitiveness-rank/)

As it is visible from the Figure, Croatia is fast growing and becoming more and more competitive. During the last 2 years Croatia had the highest Competitiveness Index in the last 8 years. Before the global recession, Croatia was at it's peak, ranked as the 57th country (Trading Economics Website, Croatia Competitiveness Rank, https://tradingeconomics.com/croatia /competitiveness-rank/). When we compare Croatia to other EU members, based on the Global Competitiveness Index it is also visible the lower competitiveness ranking position. The most competitive countries in Europe in general, according to the GCI are Germany, Switzerland, Netherlands and United Kingdom. Serbia, Croatia, Montenegro, Albania, Ukraine, Macedonia, Moldova and Bosnia and Herzegovina are ranked as the less competitive countries in Europe - based on the same Global Competitiveness index Report for 2017-2018. The second Figure shows their ranking for today and for the previous competitiveness report.

Figure following on the next page

Serbia	65.00	Dec/18	70
Croatia	68.00	Dec/18	66
Montenegro	71.00	Dec/18	73
Albania	76.00	Dec/18	80
Ukraine	83.00	Dec/18	89
Macedonia	84.00	Dec/18	68
Moldova	88.00	Dec/18	87
Bosnia and Herzegovina	91.00	Dec/18	90

Figure 2: Competitiveness Rank - The Less Competitive European Countries (Trading Economics Website, Croatia Competitiveness Rank, https://tradingeconomics.com/croatia/competitiveness-rank/)

The less competitive European country is Bosnia and Herzegovina, falling one more position from the previous GCI ranking edition from position 90th to 91st, Moldova was also raked as 87th and in the recent edition is ranked 88th. Macedonia was ranked 68th and in this GCI edition falls for 16 places to the 84th position. Ukraine was ranked 89th, today is ranked 83rd, Albania was ranked 80th and today increased the rank for 3 positions to the 83rd place. Montenegro was 73rd and today is slightly more competitive holding the 71st position. Croatia was as previously told ranked 66th and today is ranked as 68th. Serbia increased the competitive position raising from the 70th place to the 65th position among 140 countries included. Competitiveness Index as already highlighted, is based on 12 pillars, which are divided among four basic ones: enabling environment, markets, human capital and innovation ecosystem. Croatia is ranked 63rd by Innovation Capacity Pillar, and 81st by Business Dynamism Pillar. Each of those pillars will be investigated more deeply in our further analysis. It is also visible that the best ranking position is held from the field of Enabling Environment Pillar - Infrastructure, where Croatia is 36th among the 140 countries included. Here is the complete ranking for Croatian pillars and Global Competitiveness Index for 2017. -2018.

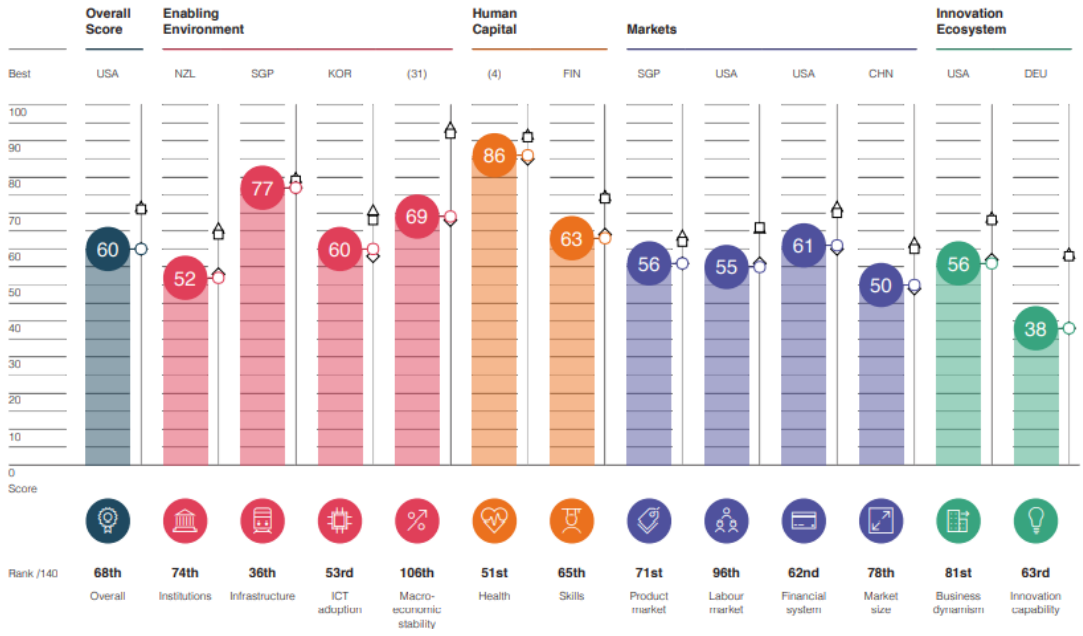


Figure 3: The Global Competitiveness Index - Croatia (WEF, Global Competitiveness Index 2017-2018, p. 179.)

From the Global Competitiveness Index for Croatia it is visible the score for each competitiveness pillar as well as the ranking for each of them, compared to the other 140 countries included in the index. The ranking for Enabling Environment pillars are: Institutions is scored 52 and ranked 74th, Infrastructure is scored 77 and ranked 36th. ICT adoption is scored 60 and ranked 53rd, Macroeconomic stability is scored 69 and ranked 106th. Human Capital pillars are Health, scored 86, ranked 51st and Skills scored 63, ranked 65th. Market pillars are Product market, scored 56, ranked 71st, Labour Market scored 61, ranked 62nd, Financial System scored 61, ranked 62nd, and Market Size scored 50, ranked 78th overall. Innovation Ecosystem pillar in terms of Business Dynamism is scored 56, ranked 81st and in terms of Innovation Capability is scored 38th, ranked 63rd - which is also one of the best scores for all 12 pillars included in the competitiveness measurement. The United States of America and Germany are ranked as 1st overall in terms of innovation ecosystem competitiveness pillar.

4. INNOVATION AND COMPETITIVENESS

Innovation is one of the key factors in achieving competitiveness and gaining sustainable competitive advantage. Innovative ideas and new ways of doing business are commonly accepted as one of the most important factors for success. The connection between innovation and competitiveness will be furthermore analysed based on the findings and statistics of the Global Competitiveness Report. In the terms of Innovation Ecosystem Pillar, as it was already mentioned, Croatia is ranked 81st in terms of Business Dynamism, and 63rd in terms of Innovation Capability. It is visible Croatia has a great potential in innovation activities but it still has to work on the attitudes toward entrepreneurship, willingness to delegate authority and in the growth of innovative companies. Regarding Business Dynamism, the best ranked factor is insolvency regulatory framework ranked 28th and the worst one is attitude toward entrepreneurship ranked 137th out of 140 countries. The Innovation Capability Pillar best ranks is for international co-inventions ranked 42nd and the worst one is for multi-stakeholder collaboration ranked 134th as well as diversity of workforce ranked 133rd. The Innovation Ecosystem Pillars are shown on the following figures about Business dynamism and Innovation capability. Business dynamism pillar and the Croatian score and ranking for each of them is shown on the following Figure.

Pillar 11: Business dynamism 0-100 (best)	-	55.7 ↑	81
11.01 Cost of starting a business % GNI per capita	7.2	96.4 ↓	69
11.02 Time to start a business days	7.0	93.5 =	41
11.03 Insolvency recovery rate cents/$	32.7	35.2 ↑	81
11.04 Insolvency regulatory framework 0-16 (best)	12.0	75.0 =	28
11.05 Attitudes toward entrepreneurial risk 1-7 (best)	2.9	32.1 ↑	137
11.06 Willingness to delegate authority 1-7 (best)	3.6	42.7 ↑	122
11.07 Growth of innovative companies 1-7 (best)	3.3	38.2 ↓	123
11.08 Companies embracing disruptive ideas 1-7 (best)	2.9	32.4 ↑	128

Figure 4: Global Competitiveness Index 2017-2018 - Croatia - Innovation Ecosystem Pillars - Business Dynamism (WEF, Global Competitiveness Index 2017-2018, p. 181.)

The second Innovation Ecosystem Pillar is Innovation Capability and it is shown on the following Figure, together with the score and ranking for each factor included.

Figure following on the next page

Pillar 12: Innovation capability 0-100 (best)	-	**37.7** ↓	**63**
12.01 Diversity of workforce 1-7 (best)	3.3	38.9 ↑	133
12.02 State of cluster development 1-7 (best)	2.8	30.4 ↑	130
12.03 International co-inventions applications/million pop.	1.15	23.53 ↓	42
12.04 Multi-stakeholder collaboration 1-7 (best)	2.8	30.8 ↑	134
12.05 Scientific publications H Index	226.0	80.3 ↓	46
12.06 Patent applications applications/million pop.	5.01	32.94 ↓	44
12.07 R&D expenditures % GDP	0.9	28.5 ↓	44
12.08 Quality of research institutions index	0.01	3.63 ↓	57
12.09 Buyer sophistication 1-7 (best)	2.7	28.6 ↑	117
12.10 Trademark applications applications/million pop.	1,593.72	79.33 ↓	44

Figure 5: Global Competitiveness Index 2017-2018 - Croatia - Innovation Ecosystem Pillars - Innovation Capability (WEF, Global Competitiveness Index 2017-2018, p. 181.)

The most problematic factors for doing business in Croatia, according to The World Economic Forum (2017-2018) are: inefficient government bureaucracy, policy instability, tax regulations, corruption, tax rates, insufficient capability to innovate, access to finances, restrictive labour regulations, inadequately educed workforce. Croatia will have to put more effort into improving those factors and one of the possible keys for doing that can be found in innovation and innovation activities. When we compare Croatia to Europe and North America GCI average, the situation becomes even more visible. The following diagram is showing the lack of innovativeness capability and business sophistication in 2016. and the gap between Croatia and Europe/North America (the grey line on spider diagram, Figure 6.).

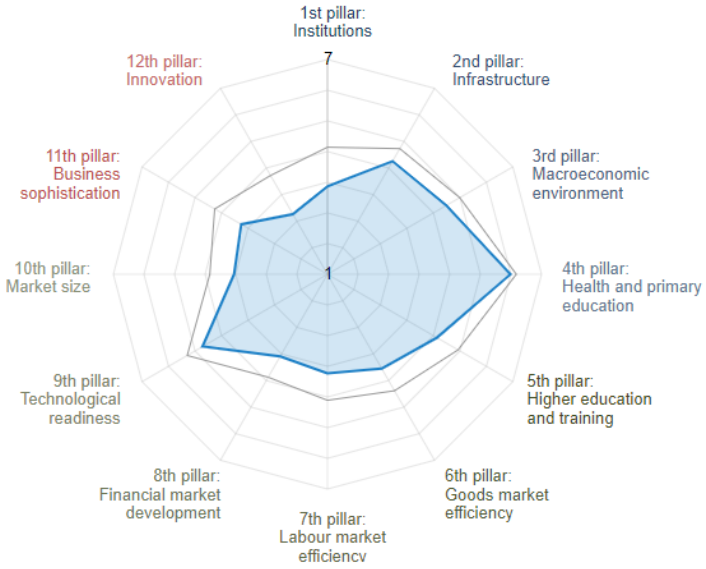


Figure 6. Croatia / Europe-North America - GCI gap (World Economic Forum, Global Competitiveness Index Croatia 2017-2018, http://reports.weforum.org/global-competitiveness-index-2017-2018/countryeconomy-profiles/#economy=HRV)

Croatia must facilitate administrative procedures, enable better conditions regarding taxation policies and encourage the transfer of technology, knowledge and innovation (WEF, Global Competitiveness Report, 2017-2018). In terms of regional competitiveness, Croatia is also struggling to approach the EU average. One of the most important regional competitiveness indicator is presented by the European Regional Competitiveness Index (EURCI). "Regional competitiveness is the ability of a region to offer an attractive and sustainable environment for

firms and residents to live and work. Launched in 2010 and published every three years, the Regional Competitiveness Index (RCI) allows regions to monitor and assess their development over time and in comparison with other regions." (European Commission Directorate-General for Regional and Urban Policy, https://ec.europa.eu/regional_policy/en/information/maps /regional_competitiveness/#3). "The RCI builds on the approach of the Global Competitiveness Index by the World Economic Forum. It covers a wide range of issues including innovation, governance, transport and digital infrastructure, and measures of health and human capital. A growing number of regions use it to identify their strengths and weaknesses and shape their development strategies."(European Commission Directorate-General for Regional and Urban Policy, https://ec.europa.eu/regional_policy/en/information/publications/working-papers/2017/the-eu-regional-competitiveness-index-2016). The 2016 index is based on 74 mostly regional indicators covering the 2012-2014 period, but with a number of indicators from 2015 and 2016. It is important to accent that the European Regional Competitiveness Index is based on analysing factors of effectiveness, basic competitiveness and as the third one - innovation factors. Innovation capability is becoming more and more important and it is identified as one of the most important and relevant factors for achieving sustainable competitive advantage. The ones who will understand the importance of constant innovation will be the ones who will become and remain leaders on the market. One of the main goals of the countries should also be to assist the market in order to achieve that sustainable competitive advantage they all wish to gain (EU Regional Competitiveness Report, 2016). It is now notable Croatia is among the lowest developed regions in terms of EU regional competitiveness. The regional competitiveness in Croatia is divided among the two NUTS regions - Adriatic and Continental Croatian Region. Out of 263 EU regions, Adriatic Region is at the 222nd place and Continental Region at the 220th - for year 2016. Croatian regions are still lacking competitiveness in terms of market size, infrastructure but as well innovation. In this paper the author will consider the Adriatic NUTS region when analysing regional competitiveness. The following spider diagram shows Croatian regional competitiveness score, compared to the EU average. Croatia (Blu line -EU avg, Red line - Croatian avg, Green line - Adriatic NUTS avg).

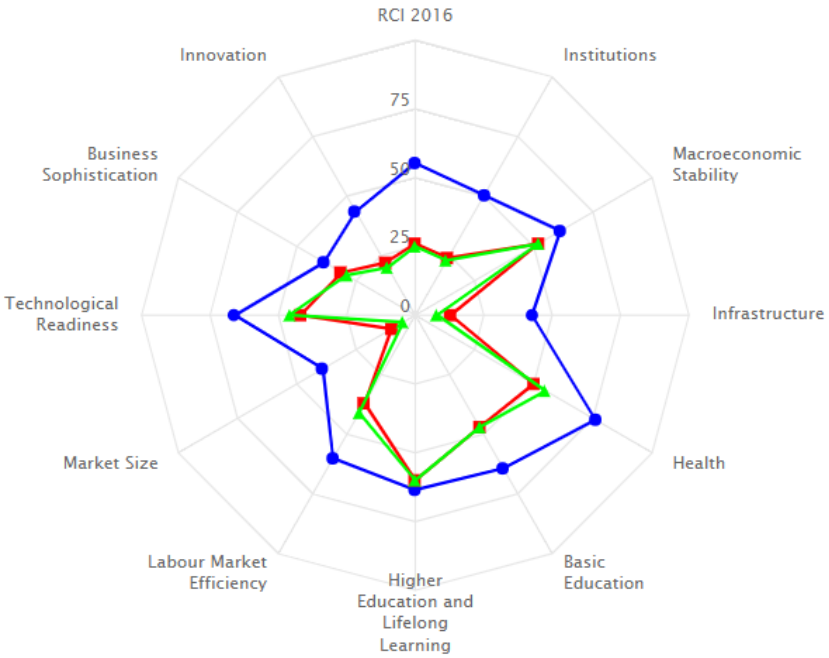


Figure 7: EU Regional Competitiveness Index 2016 (EURCI) - Croatia (European Commission Directorate-General for Regional and Urban Policy, https://ec.europa.eu/regional_policy/en/information/maps/regional_competitiveness/#3)

From the EU Regional Competitiveness Index it is visible that the two Croatian NUTS regions are almost equally competitive but when they are compared to the EU regional average, the lack of competitiveness is highlighted, especially concerning institution, infrastructure and market size competitiveness pillars. Croatian regions are most competitive and closer to the EU average regarding the business sophistication, macroeconomic stability, innovation and higher education and lifelong learning competitiveness pillars. In terms of Innovation Dimension the Adriatic region is ranked 196th from 263 regions, according to RCI 2016. Innovation Dimension is based on - Technological readiness 193rd, Business Sophistication 178th and Innovation 207th. The Basic Dimension containing institutions, macroeconomic stability, infrastructure, health and basic education is ranked 228th. The Efficiency Dimension containing higher education, lifelong learning, labour market efficiency and market size is ranked 215th. It is visible from the spider diagram the discrepancy between the average Croatian regional competitiveness index, for the Adriatic NUTS region and the EU average based on the EU Regional Competitiveness Index. The EURCI for the Adriatic NUTS region is very close to the Croatian regional average for the regional competitiveness index, but there is a huge gap between the both of them and the EU regional competitiveness average.

5. CONCLUSION

The quest for competitive advantage becomes more and more important, and the accent on the sustainable competitive advantage becomes crucial. National economies and other business entities struggle on daily basis to find the right balance between in time predicting and adapting to changes. One of the key factors into achieving sustainable competitive advantage is innovation and innovation activities. Only constant innovation and permanent seek for new ideas and new ways of improvement, are generating sustainable competitiveness. National economies needs to be agile in fast changing business environment and constantly improve their selves, as well as constantly seek for new opportunities and new challenges. As it is visible from the Oslo Manual, Global Competitiveness Report, EU Regional Competitiveness Report and many others not investigated in this paper, innovation is becoming highlighted and often extracted as one of the main indicator and key driver of competitive advantage. Innovation is researched and analysed as one of the crucial activities for obtaining and preserving the sustainable competitive advantage for national economies and business entities as well. In this paper the author investigated the linkage between national competitiveness and innovation, and accented the correlation between the competitiveness ranking and high innovation and research performance. If the trend of the Croatian economy indicators, showing a slightly increase in innovation and business sophistication factors will continue, it is also possible to expect a slight increase of Croatian Global Competitiveness ranking for the upcoming GCI report. Also, the regional competitiveness indicators are showing the similar slight improvement in innovation capability factors for the two NUTS regions. If Croatia continues to research and improve on different innovation activities, it is possible it will positively affect the overall competitiveness ranking and enhance or at least detain the national economic growth.

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EFFECTIVE UTILIZATION OF HUMAN POTENTIAL AND LABOR PRODUCTIVITY

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ABSTRACT

The development and effective use of human potential, the leading role of the education system in this process is revealed in the article. The role of rational use of human potential in raising productivity in market conditions was justified.The importance of human potential in improvement of labor productivity, sustainable socio-economic development of the country, enhancement of competitiveness of production and service sectors, integration into global markets are studied. The impact of issues such as raising quality in all levels of education, development of employees' knowledge and skills through various trainings, and adaptation of qualified personnel to labor market requirements have been explored for the development of human potential. The article focuses on two major issues: 1) the elevation of quality in all levels of education for the formation and development of human potential; 2) stimulation of investment in stable development of labor potential for increasing labor productivity. The wide range opportunities for improving labor productivity in Azerbaijan as a key issue for promoting investment in human potential to increase labor productivity in all spheres covered by the Strategic Road Map on main sectors of the national economy is researched in the article. The role of internal and environmental factors in the realization of human potential is high. In developing and realizing this potential, The person himself, his family, the company where he works, and ultimately the region or the country should be interested whith his life. All this shows that for the realization of human potential, human development should be invested in the micro, meso and macro levels.

Keywords*: education level, human capital, human potential, labor productivity, living standards*

1. INTRODUCTION

According to the human capital concept, the key to the development of modern information society and innovative economy is human, it's potential. It means that human potential is a key factor in sustainable and constant development in the country, the competitiveness of the labor force, and ultimately, the improvement of the living standards of the population. This theory is based on the "creative human" model and behavioral principle that is different from the traditional classic theory of the "economic human". Based on this model, it is based on realizing its creative potential and developing its personal qualities. This reflects the paradigm and principles of the creative economy. Human potential plays an exceptional role in raising labor productivity, sustainable socio-economic development, and integration of the state into global markets. Human potential ultimately shows itself in concrete labor activity, takes place and reflects the labor resources of firms and the country as a whole under equal conditions. Human resources are used by considering the employee's potential and personal qualities. This means that human resources should be adequate to human potential in terms of its application. The effectiveness of each country's employment policy affirms itself in creating the conditions for full and productive use of its human potential. It is also true that, in the developed countries, the funds invested in human resources are more effective compared to the investments in other areas.

2. THEORETICAL FOUNDATIONS OF HUMAN POTENTIAL

The theory of "human capital", which can perfectly describe the essence and content of modern information society and the innovative economy, has been created in the late 20th century. Its foundations were created by American economists G. Becker and T. Schultz, and therefore awarded the Nobel Prize. According to Becker, human capital is personal qualities affecting the flow of money generated by human beings. In economic research and literatures, human capital is generally interpreted as a combination of personal qualities, such as its ability and abilities, to influence the effectiveness of human labor" (9, p.417). While saying effective utilization of human capital, the individual human capital is primarily intended. “Individual human capital is the accumulated knowledge, skills, motivations, abilities, and health resources that have been created as a result of investment and the productivity and income of its labor.” In the concept of human capital, the value of the workforce, the cost of labor force is based on the model of ordinary commodities. But the cost and cost of the labor force are not the cost value of the commodity (4 p. 257), in some cases, the concepts of "human capital", "labor potential", "labor force" and "labor ability" are identified together. So, M. Bukhalkov states: “.... Labor force is the sum of the physical, intellectual and professional qualities of a person”; “Human capital is the sum of personal qualities of employees”; "Labor potential is an effective labor productivity”; “Labor potential is closely related to human capital, and its prime cost is the price of a labor force” (12: 29-30). Another author considers that human capital is the “capitalized value” of the cumulative workforce (14th, 116th). But, A. Alaverdov states that "Human capital demonstrates the development of the workforce, the formation and improvement of the work ability” (13th, 497). Human potential plays an exceptional role in raising labor productivity, raising competitiveness of production and service sectors in sustainable socio-economic development, and integrating the state into global markets. It is therefore important to improve quality in all levels of education through the development of employees’ knowledge and skills through various trainings, bringing qualified workforce training into line with the labor market, encouraging firms to invest in research and development, and rational use of existing human capital. Therefore, it is crucial to carry out extensive measures to ensure continuity in the development of human capital, to increase labor productivity and increase the role of knowledge in economic development, as a major component of the reforms to transform the economy. The two main problems in these directions should be in focus:

1. Improving the quality of education at all levels for the formation and development of labor potential;
2. stimulation of investment in sustainable development of labor potential to provide the increasement of labor productivity

The employee’s labor potential is related to the ability for engaging in labor activity. Labor potential is given to human beings both genetically and in the natural order, i.e. education, professionalism, creativity, knowledge, experience, business activity, etc. is formed through. Families, labor collectives and the state play an important role in formation and realization the labor potential. The labor potential of the employees is based on the labor potential of the labor collectives and society. But the quality of the workforce does not mean everything at all. UNEC professor T.A.Guliyev writes: “For this purpose, the most progressive system of organization of labor, normalization of labor and motivation of activity should be applied” (4 p. 103). Whether labor potential or human potential ultimately manifests and realizes in concrete labor activity. Labor potential reflects the equity of firms and the country's labor resources. Human resources are used to consider the employee's potential and personal qualities. It means that human resources should be adequate to human capacity in terms of its application. The concept of “labor potential” and “intellectual potential” in economic literature has become a subject of scientific debate.

A group of authors consider their labor potential as broader than their intellectual potential, and vice versa, to a greater extent than the potential for intellectual potential. "The difference between the labor potential and the intellectual potential needs to be approached from the point of view of the quality and improvement of the workforce, since there are no substantial differences between the labor potential and the intellectual potential in terms of traditional components." (4 p. 115). The effectiveness of the State Employment Policy affirms itself in creating the conditions for full and productive use of society's labor potential. Prof. M.Kh.Meybullayev wrote in his book Theory of Economic Security: "Employment policy should focus on the provision of full utilization of labor potential and the business activity of working-age population" (8th, 242). Investigations show that from the second half of the XXth century, the concept of labor potential has become more popular in economic literature. Labor potential gives an opportunity for complex and systematic review of the socio-economic, organizational, intellectual, psychophysiological capacity of the population, and quantitative and qualitative indicators of labor in that direction. Such approach to labor potential gives a chance to characterize a concept that reflects socio-economic relations at all stages of human labor. V.S.Bulanov writes: ".... labor potential is a combination of both human and individual working capacities of various working groups in society as a whole. Unlike labor resources that determine the amount and structure of labor, the labor potential characterizes its quality and potential. Along with this, the quality side is in the unity with labor resources." (8th of10th). Problems of labor potential, human potential and ultimately human capital formation and development are successfully being solved in our country. Thus, according to the calculations of the World Economic Forum for 2015, the "Human Capital Index" is ranked 63rd among 124 countries. Our country is ahead of such countries as China, Turkey and Indonesia. Our country was the 37th among 138 countries in the Global Report released by the World Economic Forum for 2016-2017. (2h7). For this purpose, special attention should be paid to the development of human potential, the quality of human capital and labor productivity. From the end of the 20th century, the concept of "human potential" is frequently used in economic literature. Professor S.M.Muradov writes: "At present, human potential is the main wealth and the main driving force of economic growth of society. Because the speed of scientific and technical progress depends on the organization and cultural level of the work, its productivity, first and foremost, the quantity and quality of human potential. It is no coincidence with that in many developed countries of the world the resources invested in human resources are more effective than other destinations (5 pp.206-207).

3. EFFECTIVE USE OF HUMAN POTENTIAL ON LABOR PRODUCTIVITY

Priority should be given to the development of competitive labor force, sustainable development of the economy of Azerbaijan, and the creation of areas that stimulate intensive labor in the short-term and short-term prospects for labor. In the medium and long term perspective, transition to a science intensive model should be ensured. Development of labor productivity and human potential is considered to be an important factor for two reasons. First, raising labor productivity in an intensive labor development model should be the driving force behind economic growth by creating a direct value in the country's economy. Secondly, it should be ensured that the development model, which requires more intensive knowledge, should only be achieved through raising labor productivity. All these ensure the competitiveness of Azerbaijani products in global markets, at the same time is more attractive to human capital investment. Over the past 15 years, Azerbaijan has undergone rapid growth and labor productivity has grown more than threefold. The labor productivity growth in Azerbaijan in 2000-2008 was 13.6 percent a year, but since 2008, labor productivity has continued to grow, but annual growth rates have dropped to about 2 percent on average. The "Strategic Road Map for the National Economy Perspectives of the Republic of Azerbaijan",

approved by the Decree of the President of the Republic of Azerbaijan dated December 6, 2016, has been defined as one of the priority areas for "stimulating the development of human capital to promote labor productivity". Investigations and comparisons with regard to the level of development of countries in the region show that there are great opportunities for improving labor productivity in Azerbaijan. In eleven sectors covered by strategic roadmaps on national economy and key sectors of the economy, is intended to stimulate investment in human capital to increase labor productivity. "For this purpose it is important to establish and implement mechanisms to achieve training and regulatory change in near and far, increase the volume and efficiency of production, stimulate investment, and apply innovations to added value sectors and adapt them" (9h 91.). All projects that have already been launched in the Republic of Azerbaijan should be continued. Monitoring should also be conducted in order to follow the results of labor productivity dynamics. Grounding on the activity principles, the future development of the country should be based on new improvement plans. It is crucial to use cutting-edge and effective international practices in the preparation and implementation of measures to increase productivity. Workforce development and redesign process should always be continued to improve and develop human resources skills in production facilities. It is advisable to fund the training provided by the centers established for training employees who meet the labor market requirements in different directions. Increasing labor productivity and competitiveness in innovation activities in production and management areas is the main term for ensuring harmony in the development of human potential. The importance of this activity should be taken into account when preparing action plans and government programs that will stimulate the application of the innovation in our country. In order to stimulate innovation activities, the country has many opportunities to create a comprehensive network of knowledge through scientific research and innovations to award high-tech products and loans. Keeping these propositions in focus consistently and regularly are important for achieving optimal results. A comprehensive study of areas investigating along with measures for increasing productivity at separate levels, should be continued. The main goal here is to help them to establish effective relationships between responsible agencies, including state and regional organizations in each area, and to create mechanisms for increasing labor productivity. According to the concept of human capital, the main force in the development of modern society is the human. It means that human potential is a key factor in sustainable and stable development in the country, the competitiveness of the workforce, and ultimately, the improvement of the living standards of the population. Since human capital is creative, this theory is based on the "creative human" model and behavioral principle that is completely different from the traditional "classic" theory of the classical theory. The basis of this model lies in the realization of human creative capabilities and the development of personal qualities. This reflects the paradigm and principles of the creative economy. In this concept, a person's social role is determined by his personal qualities and abilities, not by the wealth he has accumulated. He is socialized and becomes a public figure. Labor potential, which combines the skills and capabilities of human beings with the ability to combine the profession and specialization of human beings from the birth, which is used in various spheres of public production, affecting the efficiency of labor productivity and production, increasing the wages of an individual and also increases the knowledge, habits, abilities, health, motivation and e.g. is a set of resources. Labor potential is a combination of many elements that embody it. It also has a certain structure. The followings should be included to the structural elements of labor potential: education and professional skills; health; intellectual level; mobility; natural, genetic abilities; the general-technical culture of the employee, etc. Education and health have the special place among these elements. Education as an element of human potential identifies the existence, being, ability to develop personality and resources of knowledge of human. Human health is essential for the development of his physical, mental abilities.

The employee's ability to work directly depends on his health in all directions, areas, goals and positions. Employees who have no sufficient health, poorly educated, low-educated or uneducated have a lower overall productivity than the employees who have good health and are less productive. Intellectual abilities include the solution of the problems that are characterized by the cognitive and successful performance of any activity. The existence of the knowledge and skills that the workers' labor activity is based on motivated, cultural, moral, psychological norms and values, the importance of fulfilling their professional duties, the corporate culture of enterprises and organizations, the labor remuneration and incentives combine the state policy in the direction of strong support of labor results. The role of internal and environmental factors in the implementation of the labor potential is also very high. Created suitable conditions for the realization of labor potential are one of the most important problems. In the realization of the labor potential, the person himself, his family, and then the company and organization he / she has worked for should ultimately be interested in the region or country where he lives. All this shows that in order to form and realize labor potential, people should be invested in micro, mezo and macro levels. Modernization of the education system in Azerbaijan is essential for the formation of a competitive economy. It has already been accepted that education is one of the main factors in the socio-economic development of the countries all over the world. The level of education is directly connected with the competitiveness. High quality materials are needed to produce high quality products in each socio-economic system. The education level creates labor potential, creates "Human capital", which combined with the "physical" capability, leads to increased productivity and quality improvement. Many well-known economists consider that the productivity of employees who have been educated and got knowledge in higher education institutions, is the most important factor of the competitive edge of the country's economy in the modern world. The main way of economic growth is to increase the development potential of the economy through improving the quality of human capital and management. In addition to the acceleration of both human and economic potential, the flexible and intensive development of the industry should always be focused on. Employees' health is as important as the educational system for the development of human capital in the formation of labor potential. So, if the health of the worker does not allow it, even though the knowledge level and the ability of a person is high, he couldn't be able to continue his labor activity. It means that the amount of funds allocated from the state budget to health financing is one of the most important indicators of the development level of the health system in any country. Labor Potential components form the creative energy of a person. Managing the creative energy of a person both for his own interests and for the sake of the interests of the community depends on the present circumstances. Everyone can be talented, competent, creative, but his creative energy, either positive or negative, directly depends on the specific environment of employee in which he operates, the incentives, and the existing opportunities given by the society. The first vocational, secondary, and higher education plays an exceptional role in shaping human potential, investing in human capital. Development of education all over the world has been recognized as the main locomotive for the socio-economic development of the countries, innovations and the technical and technological level of production. As a result of application of high technologies into production processes, productivity increases, products are more qualitative and cheaper. For understanding the importance and essence of productivity, let's pay attention to the Cobb-Douglas formula:

$$\mathbf{Y=A \times L^{\beta} \times K^{\alpha}, \text{ here}}$$

A- Expresses the productivity,
K- Expresses the capital investment
L - Expresses the capabilities of the workforce.

The α and β expressions indicates the division between the investment used in production processes (k) and the workforce (L). Educated, literate, experienced and skilled labor resources and high-tech facilities are the key components of productivity. This proves that the basis of economic development, directly related to human capital and is the level of employees' education. President of the Republic of Azerbaijan, Mr. Ilham Aliyev, has approved the "Azerbaijan 2020: Look into the Future" Development Concept on December 29, 2012. Paragraph 7.2 of this Concept is called "Formation of the Modern Education System". Here, the government's activities have been reflected in the country's multidimensional development of the education sector. Targets covering all aspects of education are concentrated under the 26 headings 26 (1 pp.25-28). Human potential is essentially accomplished through entrepreneurial activity, which is a manifestation of economic relations in condition of market relations (7.p.6) Labor efficiency problem becomes even more urgent in condition of market relations. A number of antimarxist scientists, specialists, and political party leaders beli**e**ve that labor productivity is merely a model of socialism and is connected with the system of socialism. In fact, the problem of labor productivity in industrialized countries is always in the spotlight. So, the State Programs on increasing labor productivity, firms related with management, industries and the country as a whole are being prepared in the USA, Germany, France, Japan, the UK and others. Edward Denison, a professor at the Brookings Institutions in the United States, has devoted much of his professional activity to research on the relationships between various factors of economic growth. E. Denison came to the most important conclusion that raising labor productivity is the most important factor in increasing national income. His research shows that 68% (about 2/3) of the US national income growth in the United States during the years 1929-1982 has been achieved through the increase in labor productivity (14. pp. 384). Brainstorming tactics, operational thoroughness and ideas in creating institutional mechanisms for raising labor productivity at national level, staff training, creation of centers, departments for labor productivity, compiling and implementing programs, economic incentives, taxes, credit income policies, and so on are related in the managing labor productivity in industrialized countries. The means directed to the development of human beings lead to an increase in its potential and ultimately the increase of labor productivity. As the productive power of labor grows, the ability of the employees for increasing labor productivity also increases. The productive labor force unlike the labor productivity is not the result, but it is the potential opportunity for achieving this or that result of labor in production process. One of the most important means of accelerating scientific and technological progress is the proper organization of material stimulation of employees working in this field. The rapid development of scientific and technical progress in the United States, the increase in its potential, is a continual increase in funding for this area and the financial status of its employees. The vast majority of American firms use flexible labor-intensive systems. The flexible system of labor compensation is based on the active involvement of employees in the creation and distribution of firms' revenues. In the United States, Various programs are used for ensuring employees' participation in the revenues of companies. These types of programs include the creation of a scholarship fund, salaries of managers and a single premium, based on the results of the year. The revenue sharing system is implemented through the concrete mechanism of motivation of employees. Razing labor productivity, is an increase in product quality, material savings, job reliability, customer satisfaction, etc. is taken as a basis here. Researches and advanced practices show that through the efficient use of flexible salary systems, firms' salaries can be increased substantially by increasing labor productivity, revenues. "The moral stimulation the labor of employees is ensured, particularly rationalized activity, shaping the company's permanent employees, reducing staff flow are solved here." (6th of 19th). Labor productivity in the flexible wage system depends on the effective organization of labor rather than the level of employees' qualifications.

The firms are constantly follow the dynamics of salaries of key categories of competitors who are competing with them, and determine the base level of their employees' wages. In this way, a competitive struggle for highly skilled workforce with high labor potential, high professionalism is carried out. The US payroll management system has a great role in stimulating employees' employment activity, who are working in the science field. In conclusion, increasing the STP's funding and stimulating employees who work in this area are one of the most important tools for increasing the scientific and technical potential of any country and to increase its effectiveness.

4. CONCLUSION

It is crucial to implement large-scale measures to ensure incessant development of human capital, increase labor productivity and the role of knowledge as a key components of the reforms, which have to be undertaken in the field of economic development. Problems such as stimulating investment in human potential development should be always at the center of attention to ensure the quality and productivity of all levels of education for the formation and development of human potential in this area. Labor potential, human potential and consequently the formation and development of human capital are being successfully solved in our country.
For the two reasons, the development of human potential and increasing labor productivity in the provision of competitive, sustainable economic development of the Azerbaijani economy is considered as an important factor. Firstly, raising labor productivity in a labor-intensive development model should be the driving force behind economic growth by creating a direct added value in the country's economy. Secondly, the transition to a development model that requires a more intensive knowledge can only be achieved by raising labor productivity. All the projects envisaged in the Republic of Azerbaijan should be continued. It is crucial to use advanced and effective international experience in the preparation and implementation of measures to increase labor productivity.

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MAIN ASPECTS OF IMPROVING THE FINANCIAL SUSTAINABILITY OF THE STATE AND THE USE OF INTERNATIONAL BORROWING IN THE REPUBLIC OF AZERBAIJAN

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ABSTRACT

The proposed article presents the economic nature and approaches to determining the financial sustainability of the state and government borrowing and the possibility of its formation. The article discusses the concept of "public debt", its structure by subjects of international credit and the foreign exchange composition of the country's foreign loans. It has been carried out the analysis of changes in economic development indicators and the indicators of the country's budget. It has been investigated the dynamics of changes in public debt and GDP in the Republic of Azerbaijan for the period 2010–2017. And also, the article examines the debt nature of the modern economy, as most countries lack their own resources to finance the current balance, to cover the state budget deficit, to carry out socio-economic reforms, and to fulfill debt obligations.

Keywords*: financial resources, economic reforms, public debt, external public debt, financial sustainability of states, solvency of the country*

1. INTRODUCTION

In international practice, external financial resources, as a rule, are used by the state as additional sources of development of the country's economy. In general terms, external debts or external indebtedness represent the sum of debts to non-residents in any currency, regardless of the place of receipt of foreign credit funds from abroad or in the country of the borrower. Over time, indebtedness goes beyond the capacity of the country, and this creates a need to reduce the expenditure side of the budget for investment and social purposes, as well as goals that are not related to the payment and servicing of public debt. The country's monetary, fiscal and debt policies interact very closely with each other: public debt has an impact on economic growth, cash flow, inflation, refinancing rate, unemployment rate, investment volume in the state economy as a whole and the real sector of the economy.

2. USE OF THE INTERNATIONAL LOANS AND MANAGEMENT OF PUBLIC DEBTS

The high growth of public debt entails a threat to the security of the country's economy and the stability of the budget system. The undocumented monetary, exchange rate and fiscal policy of the state causes concern in the financial market in relation to the investment climate, and encourages investors to put forward requirements to increase the risk premium. This mainly applies to countries that develop and form securities markets in which creditors have the right to refuse to accept long-term obligations, and this can adversely affect the formation of the financial market and economic growth [9]. At the same time, in developed countries debt and its provoked budget deficits are factors that are embedded in the economic cycle of economic development and its recovery. Money held by citizens, organizations, banks, as well as other financial and credit institutions have the asset status of these lenders. Public debt can be considered as a “loan to the nation itself” and it can be said that it does not affect the total size of the aggregated wealth of the population [5]. In General, public debt consists of:

- Domestic public debt: the debt from issued and outstanding domestic government loans;

- External public debt: the country's financial obligations to foreign creditors on a certain date;
- Gross domestic debt: this is the amount of outstanding, actual, current, non-contingent liabilities in the form of principal and interest received by a resident in relation to a non-resident, as well as obligations of residents of the country in relation to non-residents to be repaid at a certain time in the future.

In a broad sense, external public debt refers to the debt of the state on outstanding external loans and interest unpaid on them. External public debt consists of the state's debt to international and state banks, governments, private foreign banks. The current external public debt is the one for which the payment term comes in the current or the next budget year; capital debt is the one for which the payment term has not come yet [4]. Countries with low credit ratings are forced to provide extensive public guarantees to private domestic borrowers, thereby burdening the state budget in the event of their insolvency. The share of private non-publicly guaranteed debt in the external debt structure of such countries is relatively low. In developing and emerging markets, most external debt is public and publicly guaranteed; private sector debt to non-residents is predominant in developed countries. The main reasons for the emergence and increase of public debt are the following [6]:

- chronic state budget deficit;
- exceeding the growth rate of public spending over the growth rate of government revenue;
- fiscal policy aimed at reducing the tax burden without a corresponding reduction in government spending;
- expansion of expenditures and the economic function of the state;
- attraction of additional funds from non-residents in order to support stability of the national currency, etc.

At this time, the state economy faces two goals: to develop the financial market within the country and to direct funds to reduce the deficit in the country's consolidated budget. With a significant amount of public external debt, therefore, there is a reduction in the cost of development and expansion of production within the country, for social needs, in the end, everything affects the standard of living of people. Thus, the economic growth of the country is slowing down. The amount of public debt in the national part of the external debt also depends on the exchange rate. If the exchange rate has changed between the dates of determining the amount of debt, the revaluation of the amount of external debt denominated in foreign currency, is one of the factors of changes in the total value of public debt. This is especially important due to the fact that structurally the public debt consists of two parts: the main debt (capital) and the outstanding debt (current), which includes in addition to the main interest on debt amounts, or under the name of debt service. The state external debt of the country has both a positive impact on the national economy and a negative one. The positive consequences are as follows: 1) a great benefit for the country is that there is a possibility of attracting borrowed funds to the state budget and maintaining the relative size of the debt; 2) the budget deficit in the country leads to an increase in the volume of public debt, and the surplus, on the contrary, gives the opportunity to repay the overgrown debt [7.9]. Consequently, if a country is experiencing sustained economic growth, then the revenue side of the budget increases, which allows you to pay interest on the state debt. The negative consequences are as follows:

- with a constant increase in the external debt of the state, the government has to restrain investment in the national economy;
- the growth of foreign borrowing leads to a decrease in its political independence, and also entails a huge dependence of domestic finance on international one;
- public external debt, like any other debt, must be repaid together with interest.

In the process of organizing the state budget, public authorities need to take into account the optimal amount of the state external debt of the country. The budget legislation of the Republic of Azerbaijan defines the maximum amount of the state debt, as well as the debt obligations of the Republic of Azerbaijan to individuals and legal entities of the Republic of Azerbaijan, foreign states, international financial organizations. Public external debt includes foreign currency denominated debt:

- the amount of debt on state securities;
- the size of the principal debt of the loans received by the Republic of Azerbaijan;
- the value of obligations under state guarantees of the government of Azerbaijan.

We note that the state debt includes loans received under direct obligations of the state and attracted under state guarantees.

3. INDICATORS OF FINANCIAL SUSTAINABILITY OF STATES IN THE REPUBLIC OF AZERBAIJAN

The foreign debt of Azerbaijan under the signed loan agreements at the beginning of 2017 amounted to $ 10 billion 931.8 million or 32.3% of GDP. Of this amount, 6.913 billion dollars or 20.4% of GDP was actually disbursed. And also in 2016 alone, Azerbaijan mastered loans worth $ 1.204 billion (external debt grew by 46.1% over the year compared to 2015), and sent $ 0.719 billion to payments on foreign debt (with figure 2015 year growth is 41.9%) [11, 12]. Foreign donors issuing loans to Azerbaijan are the following economic entities: the World Bank, the Asian development Bank, the Islamic development Bank, the European Bank for Reconstruction and Development, the Japanese Agency for International Cooperation, which have a share of 82.3% of the attracted public debt and the remaining subjects of 17.7% have attracted shares from the international capital market through the placement of long-term securities. According to the Ministry of Finance, as of April 1, 2016, the volume of the external public debt of the Republic of Azerbaijan amounted to 7,448.7 million dollars (11,486. 6 million manats), i.e. 21% of the country's GDP [13].

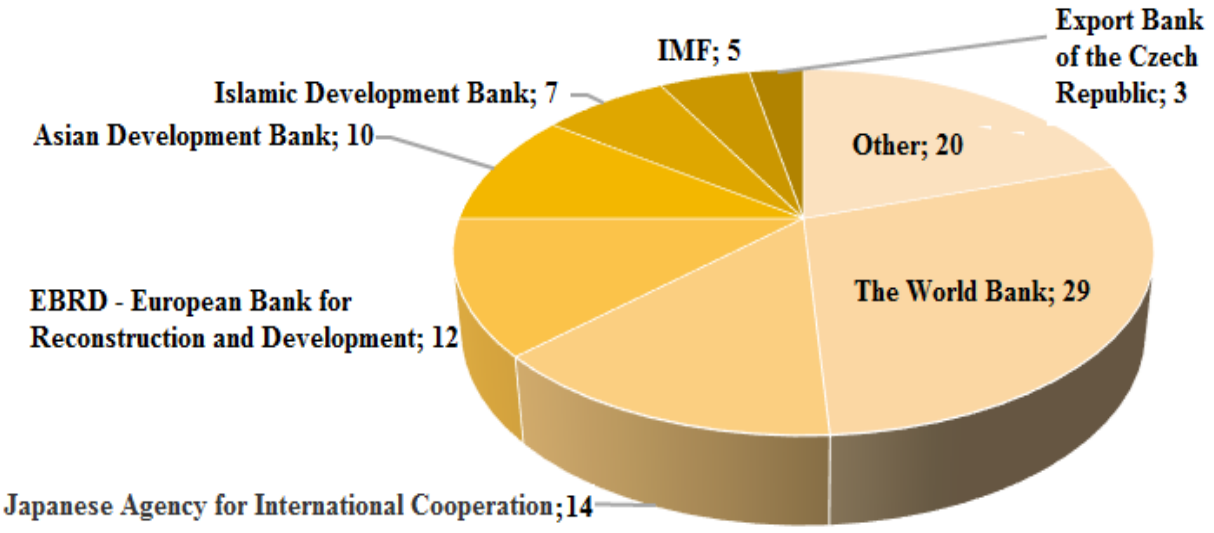


Figure 1: Structure of external debt by subjects of international credit, share by percentage. http://www.maliyye.gov.az/node/1939

20 % of the signed loan agreements include the share of agreements from the Chinese government, loans from the Kuwait Fund, Royal Bank of Scotland, Import-Export Bank from the USA, etc. As of 01.04.2017, Azerbaijan has signed loan agreements worth $ 14.2 billion

with international financial institutions and other credit institutions. At the same time, Azerbaijan's foreign debt on loans used on the basis of these agreements amounted to 9.6 billion dollars. The ratio of external debt to GDP was 22%, the volume of external debt per capita is 972.4 dollars [11, 12]. The currency composition of foreign loans of the state as of April 1, 2017 is distributed as follows:

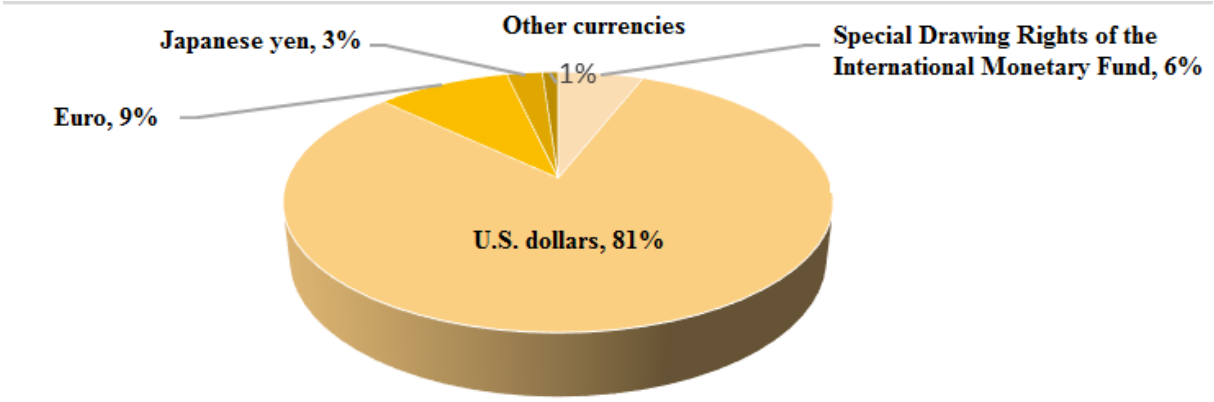


Figure 2: Currency composition of foreign loans of Azerbaijan.

At a fixed rate, it was raised 46.5% of the loan, at a floating rate - 53.5%. In the structure of external public debt, 43.9% accounted for loans for a period of 10 years, 52.3% - 10-20 years and 3.8% - more than 20 years. In the first quarter of this year, $ 255.9 million was used under signed credit agreements. As of April 1, the country's internal debt amounted to 1.070 billion AZN. Note that 75% of the total amount of public external debt is debt on external bonds. It will be necessary to pay them until 2047, the highest payment is expected in the amount of US $ 6,966 million in 2030. At the same time, as of January 1, 2018, the volume of external public debt of Azerbaijan amounted to 9398.9 million dollars (15978.1 million AZN), which is 22.8 percent of the country's GDP (we note that, in 2017, the country's GDP was 70135,1 million AZN). The borrowing statistics include direct liabilities of the state and contingent liabilities on loans attracted under a state guarantee. (Ministry of Finance). External public debt consists mainly of credit programs and infrastructure projects of international financial institutions, as well as securities placed on international financial markets. In drawing up the amount of government debt, the Ministry of Finance takes into account only those loans that have already been used at the time of the official report. In General, studying the volume of external debt of the state, it is possible to do several reasons for the sharp increase in the external debt of Azerbaijan. "In particular, within the framework of restructuring of external obligations of the International Bank of Azerbaijan, as well as obligations on large projects such as TANAP, TAP, Shah Deniz-2, the southern gas corridor, etc., it was signed large loan agreements. In the framework of these projects, Azerbaijan finances its share mainly through foreign loans. As part of the implementation of these major projects until 2020, the government will attract even more credits [14, 15]. As in other countries, debt management is already a problem of our country too. Here the main problematic issues are as follows: the first stage of the problem is related to the purposeful use of debts. As you know, the first condition for the successful implementation of the signed loan agreements is related to the use of costs for their intended purpose. But sometimes we see that these loans are spent on irrational directions and turn into corruption. That is, the use of such loans for projects that are not worth anything and the inflating of this loan portfolio from year to year is or becomes a serious problem in the management of public debt. The next problem is related to the distribution of external borrowings by sectors of the economy. There is considerable unevenness in debt diversification.

Most of the loans received are used for infrastructure projects (41.4%) and the energy sector (36.2%). This, after all, is causing delays in the development of the non-oil sector, which is one of the country's priorities. The share of public debt on foreign loans used relates to road infrastructure, industrial and energy sectors (Figure 3.).

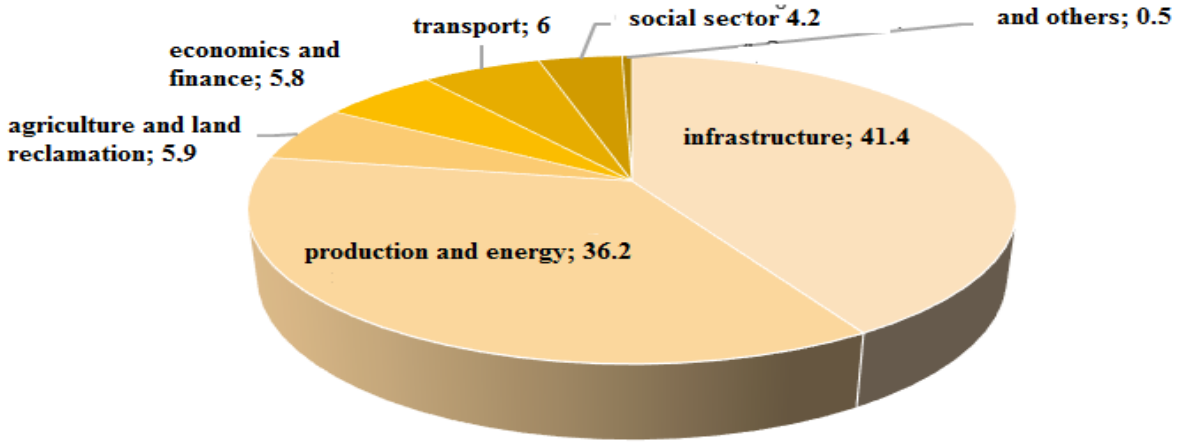


Figure 3: The structure of public debt by sectors of the economy, with percentage in 2016 (cbar.az).

For the analysis of financial indicators and to obtain the maximum possible effect from the attracted loans while minimizing the costs associated with them, as well, the severity of the debt burden of the country is determined by the following indicators [4,6]:

- ratio of total external debt to GDP as a percentage;
- ratio of total external debt to income from exports of goods and services as a percentage;
- ratio of payments on external debt service-to-GDP ratio as a percentage;
- ratio of payments on external state obligations to budget revenues in percent;
- ratio of external debt service payments to exports of goods and services in percent;
- the ratio of interest payments to GDP and exports of goods and services, official reserves to the total external debt as a percentage, etc.;

The debt dependence of a country can be measured by the level of severity of a country's debt load on liabilities to non-residents. The upper limit of the size of external debt, which theoretically allows it to be serviced promptly, is its ratio to GDP up to 40-60%, as well as to exports of goods and services - up to 200-250%; the ratio of debt service payments to the export of goods and services is up to 20-25%. In world practice, a country is considered insolvent if foreign debt exceeds 40% of GDP and 200% of exports [7]. The study of these indicators were put on the following table.

Table following on the next page

Indicators with percentages / years	Share of export in GDP	The proportion of imports in GDP	The share of foreign investment in GDP	Share of domestic investment in GDP	The ratio of external public debt to GDP	The ratio of external public debt to export	The ratio of external public debt to state budget revenues
2016	46,45	43,67	16,82	26,61	19,4	43,63	69,92
2015	29,81	15,61	22,0	18,1	12,4	14,8	36,18
2014	43,3	26,23	19,83	21,56	8,6	25,37	35,21
2013	48,4	26,26	18,12	22,65	8,2	16,87	24,38
2012	53	25,29	18,84	22,19	8,3	15,45	25,93
2010	54,3	20,68	19,42	17,66	7,42	13,42	27,15

Table 1: Indicators of public external debt of the country [13,15].

Studying in this table, we can draw the following conclusions that the share of public debt in recent years, starting in 2015, increases in the country's GDP. And if the share of public debt on the country's GDP in 2014-year is 8.6 %, then in 2018 this figure was already 22.8 %. In particular, all the studied indicators that determine the role of external public borrowing in the processes of economic development are increasing. These indicators indicate the obliging situation in the country, the first case is related to short-term insolvency of the country. The share of exports in the country's GDP was the worst in 2015 and amounted to 29.81%, since 2016, the increase in exports of goods and materials continues. The share of exports to the public debt was 25.3 % in 2014, 14.8% in 2015, and 43.63% in 2016 [16]; Studying the share of macroeconomic indicators of the Republic of Azerbaijan, we note that, starting from 2014, there has been a continuous increase in external public debt. The growth rate of debt in 2013, the country's foreign debt amounted to about $ 6050.41 million, in 2014, 36% increase amounting to $ 8257.74 million. In 2015-2016, due to servicing external debt, the state reduced its size down to $ 6913.2 million. But the manat equivalent increased almost 2 times due to the devaluation of the exchange rate. We note that in 2013 $ 1 was equal to 0.78 manat, and already starting from 2015, the rate of manat per dollar is 1.7 manat. The results of our research works indicate that if the government does not change the rate of growth of public debt, the economic crisis may worsen and then it may not be able to pay interest in the future and return loans that cannot be prolonged. This leads to the improvement of the public debt management system, which should be aimed at:

- optimization of public debt;
- strengthening of administrative control over the financial flows of the state;
- implementation of systemic institutional changes that create a favorable investment climate.

However, the use of these debt sources as a growth factor needs to take into account two important conditions:

- macroeconomic limitation of the level of external debt;
- improving the structure of external debt, i.e. the desire to increase the share of investment loans in the profitability of programs funded by them.

One of the steps taken to address the above mentioned issues is the establishment of a Financial Stability Council in the Republic of Azerbaijan as a governance mechanism. The Financial Stability Council should also ensure macroeconomic stability and financial viability of the financial, fiscal and monetary policies of a country that is responsible for a single platform. At present, due to the fact that the institutions that conduct macro and fiscal policy are included in the structure of the Cabinet of Ministers and on the other hand, the following structures not

being included in the structure of the Cabinet of Ministers, it necessitates even deeper coordination of fiscal and financial policy:

- Central Bank that is responsible for monetary policy;
- Financial Market Supervision Chamber as a megaregulator, and;
- State Oil Fund that has a leading role in the foreign exchange supply of the economy;

In this sense, the Financial Stability Council mobilizes all resources to determine the macro framework more precisely, as well as to create a basis for fiscal and financial policies to complete each other. In the world practice Financial Stability Councils were established in 2010 in the United States, in 2011 in Turkey, in 2012 in Sweden, in 2013 in Germany and Croatia. Analysis of world practice shows that co-ordination of agencies responsible for the different directions of economic policy gives positive effect. In Azerbaijan, the Financial Stability Council will play an important role in ensuring macroeconomic stability and financial sustainability in the country in line with the examples of successful foreign analogues.

4. CONCLUSION

Having analyzed the state of public debt, we came to the conclusion that the essential requirement for the payment of the non-payment policy is the export orientation of the economy and the implementation of the policy of free trade, while maintaining a surplus on the net international investment position is the main priorities of the state. When using the advanced payment system for long-term resource utilization, the most important factor is not to teach the essential requirements:

- macroeconomic limitation of external fluctuations;
- improving the structure of external debt, i.e. striving to increase the share of investment loans in the profitability of programs financed by them.

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FINANCIAL STABILITY ASSESSMENT OF THE BANKING SECTOR ON THE BASIS OF COMPOSITE INDEX

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ABSTRACT

The purpose of this article is to analyze the financial stability of the banking sector of the group of countries and to build a risk map according to groups of countries based on basic indicators. The article presents the methodology of calculating the composite index BSFSI, which allows making a comparative assessment of financial stability of the banking sector of different countries. Using the Minmax method, the BSFSI sub-indices expressed in different units are comparable and can be used in comparative analysis. The article presents a review of the methods of assessing the liquidity of a commercial bank. As a result of the calculation, the estimation of financial stability of the banking sector of 29 countries on the basis of composite BSFSI index. The index BSFSI gives the ability in the most general form to assess the banking sector from the point of view of international competitiveness, and to compare it with other countries. On the other hand, this index allows identifying the strengths and weaknesses of the current financial condition of the banking sector at the level of individual countries and monitoring its sustainability. At the same time, the index does not allow us to judge the sources of risk if, for example, they are financial instruments. Thus, our index allows us to consider systemic risk as the probability of a serious downturn in the financial system. In this study, based on data on the basic indicators of the stability of the banking sector of 29 countries, we have calculated the BSFSI index, conducted the analysis for individual countries and groups of countries. In particular, on the basis of the BSFSI index, we constructed a map of risks for the financial stability of the banking sector in developed countries, the CEE and CIS countries, and countries with risky debt.

Keywords: *financial stability, banking sector, risk analysis, financial indicators, composite index, capital adequacy, earning capacity, liquidity, sensitivity to risk*

1. INTRODUCTION

In order to assess the current financial condition of the banking sector, to analyze its strengths and weaknesses, the international practice widely uses such indicators as the capital adequacy ratio, an indicator of the quality of assets, the level of profitability, liquidity and sensitivity to market risks. Assessment practice of these indicators is based on the standards of the CAMELS methodology, which is used in assessing the financial condition of commercial banks. Besides the well-known advantages, this technique has several distinct methodological disadvantages.

In particular, the result indicator of the bank reliability is a simple sum of scores of the reliability components, not taking into account the different degree of their influence on the overall assessment of the bank. In addition, evaluation of the quality of bank management used in the analysis at the micro level (for individual banks) are difficult to integrate to obtain the general assessment of the quality of management at the macro level (the whole banking sector) (Indicators, n.d.). In addition to the above key indicators, assessment of the financial condition of the banking sector in the international practice contains a set of auxiliary indicators. These indicators include: the geographic distribution of loans, the ratio of capital to assets, the ratio of large exposures (risks) to capital, relation of positions of total assets and liabilities on financial derivatives to capital, the ratio of trading income to total income and other indicators of this type (San Jose & Georgiou, 2008). To assess the financial condition of the banking system, the developed countries use main and slave indicators. On the contrary, the emerging market economies mainly use the set of basic indicators for the analysis and evaluation. On the one hand, this can be explained by the fact that the second group of countries falls behind the first in the complexity and depth of the financial system; on the other hand, this is due to the imperfection of the existing information base in emerging market economies. Thus, to assess the financial stability of the banking sector at the country level and conduct the comparative analysis of groups of countries according to this indicator, we need a more flexible method, which is presented in our work.

2. LITERATURE REVIEW

Assessment of financial stability of the banking sector based on different indicators has a fairly deep level of scientific study. The study of systemic risks in financial markets of different countries has increased after the mortgage crisis in the United States, which began in 2007, and after the start of the sovereign debt crisis in the Euro-zone. According to Grilli, Tedeschi, Gallegati (Grilli, Tedeschi, & Gallegati, 2014), the current economic system has placed considerable emphasis on transferring resources from the production segment to the financial sector, and therefore, ignoring the comprehensive assessment of the banking sector threatens with a more intense financial instability. Attempt to develop an assessment of financial stability of banking sector was made by Oort (Oort, 1990) in 1990. However, now it does not correspond to the new challenges and driving forces of the financial industry. Although, the study provided the basis for subsequent work. For example, a number of authors (De Nicolo & Kwast, 2002) have developed a model, according to which the continuing consolidation of the financial system increases the systemic risk. Some authors (Danielsson, James, Valenzuela, & Zer, 2016) in a series of their works showed that the risk indicators, that only take into account the specific risk of the institution, do not just help in monitoring systemic risk across the banking sector, but may exacerbate it. Another author (Lehar, 2005) also came to similar conclusions. Among the latest works, we can highlight the work of DeYoung (DeYoung & Torna, 2013), which shows that the policy of the Central Bank based on the wrong choice of indicators leads to increases in bank failures and growth of bank risks. There is a large amount of empirical literature, which considers financial stability focusing only on the quality of assets. Such works as Acharya (Acharya, Afonso, & Kovner, 2016) show why it is important to consider composite indexes for the financial sector, when banks start to compete with each other for liquidity after asset-backed commercial papers. The results convincingly point to the financing risk, which manifests itself as lack of foreign currency for banks engaged in liquidity transformation in foreign countries. For all this research area, there is a big methodological problem. These models do not explain the behavior of financial sectors with imperfect information base that we can observe in emerging market economies. At the same time, we can state that in our opinion each new work in this direction shows the same subject of study from different points of view.

Although the results stated in this literature are not final and cause a lot of controversy (Gong & Jones, 2013; Ioannidou, Ongena, & Peydró, 2015; Jones & Oshinsky, 2009; Ongena & Penas, 2009; Pais & Stork, 2011; Schaeck, Cihak, & Wolfe, 2009), our paper complements the works devoted to the evaluation of the financial market on the basis of composite index by the fact that our indicator correctly displays the rating both at the international level and at the level of individual countries. Thus, it eliminates the difficulties of scientific research of trends, associated with the fact that the same indicators in different countries in practice mean very different states of the market.

3. METHODOLOGY

The proposed index of financial stability of the banking sector BSFSI (Banking Sector Financial Stability Index) with certain modifications, is intended to be used both for the analysis and evaluation at the international level and at the level of individual country. This index can be calculated monthly, quarterly or annually. In our research, we used annual value of BSFSI.
In the creation of the index, we used the following set of basic indicators of the financial condition of the banking sector:

- The sub-index of capital adequacy reflects the adequacy of the total capital. For its calculation, we used the eponymous indicator;
- The sub-index of asset quality expresses the quality of the loan portfolio, which constitutes the basis of the bank assets. For this purpose, we used the ratio of the share of non-performing loans in the loan portfolio;
- The sub-index of profitability assesses the level of general profitability of the banking sector. When evaluating on the basis of weight in the world economy, in index we used the averaged sector values of the margin on profit on assets and capital (ROA, ROE);
- Sub-index of liquidity maintenance characterizes the liquidity risks of the sector. When evaluating on the basis of weight in the world economy, we used the averaged sector values — the liquidity ratio (the ratio of liquid assets to total assets) and the ratio of instant liquidity (the ratio of liquid assets to short-term liabilities).
- The sub-index of sensitivity to risk reflects the sensitivity of the sector to foreign exchange risks. For the measurement, we used the indicator of open foreign currency positions.

In the construction of composite indicators, to convert variables expressed in different units to a common scale (measurer), we use a variety of methods. The most common of these are the standardization methods (z - skor), the Minimax method, method of separation from the compared country, the method of scale categories, the method of indicators above the average and below the average price, the method of cyclical indicators, balance reviews method (Freudenberg, 2003; Nardo, Saisana, Saltelli, & Tarantola, 2005). The use of any of these methods depends on the research objectives and properties of the used variables. Here, when the construction of BSFSI index, we used the Minimax normalization method. With the help of this method, variables expressed in different units are transformed to a comparable form and become suitable for comparative analysis. Normalization based on the Minimax method is carried out using the following formula:

$$Ic = \frac{Xc - min(X)}{max(X) - min(X)} \quad \textbf{(1)}$$

Here: $\dot{I}_c$ *– normalized price* X_c*;*
X_c *– price of the variable X in country C;*
min(X) – the minimum price of variable X in the analyzed countries;
max(X) – expresses the maximum price of a variable X in the analyzed countries.

From a theoretical point of view, capital adequacy, indicators of profitability and increase of liquidity ratios lead to higher financial stability of the banking sector, i.e. increasing the value of BSFSI. And increase of the share of non-performing loans in the loan portfolio and the deviation from zero in the open foreign exchange position indicates an increase in credit and currency risks in this sector. To consider these differences, we used a normalization of variables formula (2), inverse in the mathematical sense to the formula (1). It was used in the calculation of sub-indices of quality of assets and their sensitivity:

$$I'c = \frac{Xc - \max(X)}{min(X) - max(X)} \textbf{(2)}$$

Here X_c, *max(X), min(X)* have similar values to variables in the formula ***(1)***.

Based on the assumption about the difference of impact force on the financial stability of the banking sector variables used to construct the sub-indices, BSFSI was calculated in two variants on the basis of equal and different weights of sub-indices;

$$BSFSI_1 = 0.2*CA+0.2*AQ+0.2*P+0.2*L+0.2*S \textbf{(3)}$$

$$BSFSI_2 = 0.1*CA + 0.6*AQ + 0.2*P + 0.05*L + 0.05*S \textbf{(4)}$$

Here, CA – the sub-index of capital adequacy;
AQ – the sub-index of the assets quality;
P – the sub-index of profitability;
L – the sub-index of liquidity;
S – the sub-index of sensitivity.

The value of $BSFSI_1$ calculated according to the formula (3) a priori estimates the equivalent contribution of each of the sub-indices in the overall assessment of the sector. A similar approach is used in CAMELS only at the micro level. International practice shows that efficient operation of the banking sector is possible only if the asset quality and profitability are high (that is, the non-performing loan ratio is low). In most cases, especially when the economy is facing a deep recession, stress in the banking sector is accompanied by, namely, a deterioration of asset quality, that in chain reaction leads to a decrease in profits, weakening of liquidity support and requires costs of capital reserves for compliance with obligations. This fact points to the inadequacy of the contribution of each of the sub-indices into the calculation of BSFSI, which is considered in the calculation of $BSFSI_2$ according to the formula (4). Instability in the banking sector may occur because of a "banking panic", "speculative flows", the sharp reduction of national currency. At the same time, the banking sector in the first place is facing a liquidity problem (although the sharp devaluation of the national currency directly influences the asset quality and their profitability), and its elimination will cost faster and easier than improving the quality of assets and increasing of profitability. The Central Bank has all the capabilities to provide commercial banks with liquidity assets. If necessary, it is possible to transfer liquidity assets to commercial banks and neutralize the stress of liquidity using such tools as the issuance of loans to banks using the channel of refinancing, operations with securities, foreign exchange intervention, svop-operations and changes in reserve requirements. Since the profitability indicator depends on the state of "saturation" of the economy, and is also closely related to non-performing loans, giving them both a high specific weight may lead to incorrect results. Therefore, the sub-index of the assets quality resulting from the main functions of the banking system (effective allocation of financial resources) should be different from other sub-indices by higher specific weight, which is reflected in the calculation of $BSFSI_2$. In total,

the analysis included 29 countries, including 19 countries of Central and Eastern Europe and the CIS, as well as 10 countries with the developed market economies. The information base of the assessment and evaluations is the database of the International Monetary Fund (International Financial Statistics/ Financial Soundness Indicators). The calculations were carried out on the basis of available materials over the last period of 17.11.2016.

4. THE RESULTS OF THE EVALUATION ON THE STABILITY OF THE BANKING SECTOR ACCORDING TO THE COMPOSITE INDEX BSFSI

This work brings additional knowledge and useful scientific conclusions about the problems of assessing financial stability. According to the results of the evaluation according to the index of financial stability of banking sector, at present, among the analyzed countries, countries such as Sweden (0,851), United Kingdom (0,792) and South Korea (0,775) have the most stable banking system. Norway and Georgia close the first five countries with the evaluation indices 0,764 and 0,736 respectively. (Table 1).

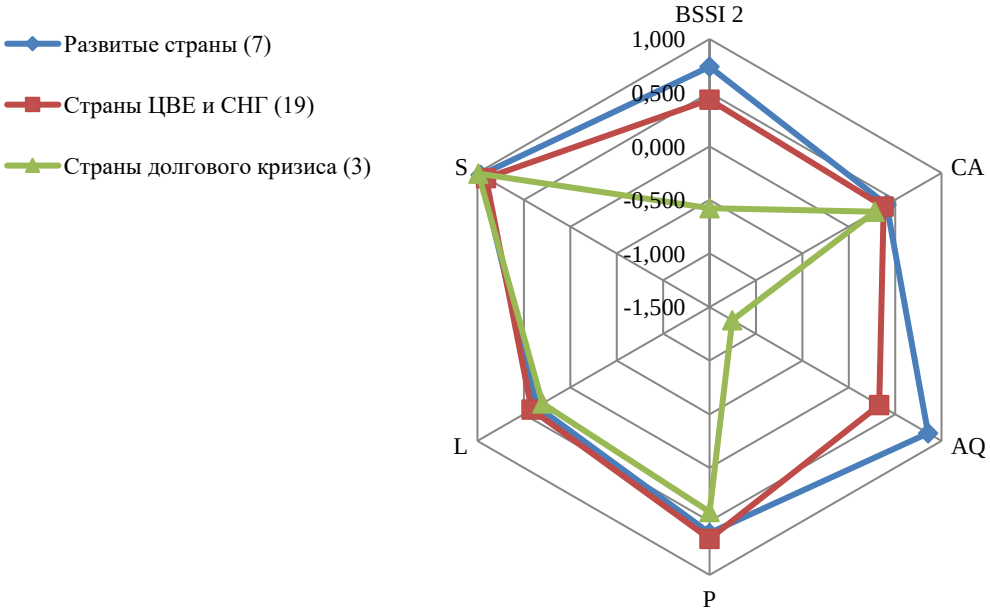
Table 1: The results of the evaluation of the index of financial stability of the banking sector in the CEE countries, CIS countries and some developed countries

Ranking according to BSFSI 2	**Name of the country**	**Sub-indices**					*BSFSI 1*	***BSFSI 2***
		CA	*AQ*	*P*	*L*	*S*		
1	Sweden	0.788	0.927	0.702	0.550	0.968	0.787	***0.851***
2	United Kingdom	0.442	0.930	0.671	0.187	0.931	0.632	***0.792***
3	The South Korean Republic	0.127	0.967	0.489	0.686	0.996	0.653	***0.775***
4	Norway	0.450	0.921	0.611	0.000	0.895	0.575	***0.764***
5	Georgia	0.348	0.755	0.939	0.252	0.955	0.650	***0.736***
6	Latvia	0.408	0.744	0.888	0.386	0.974	0.680	***0.733***
7	Belgium	0.402	0.771	0.581	0.377	0.980	0.622	***0.687***
8	Slovakia	0.338	0.682	0.783	0.355	0.985	0.629	***0.667***
9	Austria	0.306	0.789	0.424	0.346	0.992	0.571	***0.656***
10	Germany	0.520	0.773	0.399	0.127	0.945	0.553	***0.649***
11	Czech Republic	0.271	0.667	0.786	0.351	0.897	0.595	***0.647***
12	Poland	0.322	0.710	0.575	0.189	0.995	0.558	***0.632***
13	Kyrgyzstan	0.661	0.550	0.709	0.456	0.984	0.672	***0.610***
14	Kazakhstan	0.285	0.476	0.917	0.222	0.988	0.577	***0.558***
15	Slovenia	0.446	0.469	0.714	0.323	0.994	0.589	***0.534***
16	Macedonia, FYR	0.226	0.521	0.707	0.236	0.914	0.521	***0.534***
17	Moldova	1.000	0.260	0.942	0.668	0.945	0.763	***0.525***
18	Hungary	0.303	0.336	0.898	0.474	0.853	0.573	***0.478***
19	Armenia	0.345	0.378	0.446	0.686	0.976	0.566	***0.433***
20	Romania	0.450	0.246	0.697	1.000	0.996	0.678	***0.432***
21	Belarus	0.275	0.231	0.703	0.379	0.953	0.508	***0.373***
22	Russian Federation	0.024	0.357	0.343	0.541	0.971	0.379	***0.361***
23	Bosnia and Herzegovina.	0.243	0.193	0.514	0.265	0.962	0.435	***0.304***
24	Croatia	0.626	-0.060	0.440	0.382	0.951	0.468	***0.181***
25	Tajikistan	0.262	-0.270	0.969	0.377	0.997	0.467	***0.127***
26	Italy	0.188	-0.167	0.363	0.360	0.988	0.347	***0.059***
27	Ukraine	0.141	-1.067	0.000	0.586	0.000	-0.068	***-0.597***
28	Greece	0.381	-1.467	0.334	0.292	0.983	0.105	***-0.711***
29	Cyprus	0.272	-2.130	0.537	0.242	0.998	-0.016	***-1.082***

Source: Compiled based on author's calculations

Cyprus, Greece, Ukraine and Italy have the worst indicators. Since 2010 they try to resolve the debt crisis, but failed to achieve this, and now they are in the ranks of outsiders. The countries of CEE and the CIS are mainly in the center. Kazakhstan's banking sector retains its stability at the present time, as it has better learned the lessons of the global financial crisis of 2008-2009, despite the negative shock from oil prices observed over the past two years. With the index of 0,558, Kazakhstan is slightly above average (0,404) level, in 14th place. The banking sector of Russia has an index rating 0,361 and is in the 22nd place, including the economy and financial sector, which suffered most from the negative shock in oil prices, where non-performing loans increased and profitability declined sharply. Overall, the considered countries can be relatively divided into 3 groups. Developed countries (7 countries), the countries of CEE and CIS (19 countries) and the countries of Europe, where the results of the debt crisis are most deeply manifested. Next, for each group, we showed the risk map of the financial stability of the banking sector (Figure 1).

Figure 1: Risk map of the financial stability of the banking sector according to groups of countries



Source: Compiled based on authors calculations.
Translation of elements: Развитые страны - Developed countries; Страны ЦВЕ и СНГ - CEE and CIS countries; Страны долгового кризиса - The countries of debt crisis.

As it can be seen from the risk map in Figure 1, the main difference between groups of countries is evident in the quality of bank assets as banking systems of developed countries has higher quality of loan portfolio. The results for the other risk factors are close to each other. The CEE and the CIS countries are even ahead of developed countries according to the results regarding the indicators of profitability and liquidity. This can be explained by characteristics of the market (in CEE and the CIS countries, the profit margins are higher) and the difference in approaches to the management of assets and liabilities.

5. DISCUSSION

In the last 10 years, the problem of assessing the stability of the banking system to risks was the center of attention of researchers and practitioners. However, literature about this and discussions about how to include risk in the evaluation system was quite rare. The authors of those empirical studies that examined the impact on the stability of the banking sector of certain

variables noted that the banking system of developed countries has higher quality of credit portfolio thanks to the work of the supervisors. In this regard, we also came to the same conclusion, as other authors (Acerbi & Scandolo §, 2008; Derviz & Podpiera, 2008). In the framework of this research, we did not record the effect of impact of increased capital on credit volume growth. So for comparison, Carlson (Carlson, Shan, & Warusawitharana, 2013) based on the annual data of Bank of the United States brought the dependency so that a 1-percentage point of capital increase, the credit increases by 0.05–0.2 percentage points. Such growth becomes particularly prominent during the crisis as banks are increasing their actual capital adequacy ratios by adjusting their portfolios in favor of less risky assets. Thus, our work confirms the results of other studies that also did not find this relationship (Gambacorta & Marques-Ibanez, 2011). Our work confirmed the thesis, according to which there are limits to the economic benefits from the creation of liquidity. We affirm the findings of Acharya and Naqvi (Acharya & Naqvi, 2012), who estimated that the excess liquidity may lead in the deeper crisis for banking sector. The resulting asset bubble potentially increases the vulnerability of the banking sector and increases the risks of generating financial crisis. On the basis of our index, we can't confirm those studies that try to explain the strong correlation between the ratio of debt to equity, creating liquidity and increasing risk. Thus, Berger and Bowman (Berger & Bouwman, 2009) believe that the accumulation of liquidity and the excessively risky behavior of banks may precede the financial crisis. There is a number of works that tried to find a link between the development of subprime mortgages and rising risks (Hellwig, 2009; Petersen, De Waal, Mukuddem-Petersen, & Mulaudzi, 2014), and that have come to controversial conclusions. Our results also indicate that the strategy of banks from the point of view of growth of credit and liquidity risks will differ in the extent of economic fluctuations. For example, as banks face greater liquidity risk, they create more risks during recessions than during economic expansions. In other words, our results show that liquidity risk is more important than credit risk in a downturn than during a boom. This conclusion is consistent with the recent policy of the Central Bank of different countries, where regulators have been more focused on liquidity management in the banking sector. Especially after December 2010, when the macroprudential policy of the Central Bank was aimed at reducing risks in the financial system by adjusting the reserve requirements. Our index confirms the findings of some works (Fiordelisi & Mare, 2014; Vallascas & Keasey, 2012) about the importance of the regulatory framework for the functioning of a stable system. Restrictions on attraction of borrowed proceeds and strict requirements for liquidity can improve the resilience of financial institutions to system events. The size of the bank may be an effective tool for risk reduction, according to these authors.
Our index also allows us to conclude that increased competition stimulates banks to diversify risks, indirectly making the system less vulnerable to shocks, but only in cases where an institutional system is strong. Otherwise, we can establish that financial liberalization increases bank risk. This is also confirmed by several studies (Cubillas & González, 2014).

6. CONCLUSIONS

To assess the financial stability of the banking sector, we used a variety of metrics. From the point of view of possible applications, combining them into a single composite indicator is of particular importance. Our proposed Banking Sector Financial Stability Index (BSFSI) is intended both for comparative international assessment of financial stability of the banking sector and for its evaluation in the country. On the one hand, the index BSFSI gives the ability in the most general form to assess the banking sector from the point of view of international competitiveness, and to compare it with other countries. On the other hand, this index allows identifying the strengths and weaknesses of the current financial condition of the banking sector at the level of individual countries and monitoring its sustainability. At the same time, the index does not allow us to judge the sources of risk if, for example, they are financial instruments.

Thus, our index allows us to consider systemic risk as the probability of a serious downturn in the financial system. In this study, based on data on the basic indicators of the stability of the banking sector of 29 countries, we have calculated the BSFSI index, conducted the analysis for individual countries and groups of countries. In particular, on the basis of the BSFSI index, we constructed a map of risks for the financial stability of the banking sector in developed countries, the CEE and CIS countries, and countries with risky debt.

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BUILDING AN INNOVATION ECOSYSTEM IN AZERBAIJAN - ON THE BASIS OF THE STUDY OF ISRAELI PRACTICE

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ABSTRACT

Building a successful innovation ecosystem is a key factor in innovation, growth, and development. Formation of a favorable innovation ecosystem remains an essential policy priority for the government of Azerbaijan too. President of the Republic of Azerbaijan signed a decree on the establishment of the Innovation Agency under the Ministry of Transport, Communications and High Technologies of the Republic of Azerbaijan on November 6th, 2018. The Innovation Agency to be established in 2019 will be a coordinating body to draft and implement an innovation roadmap of an Azerbaijani ecosystem. This paper reviews world practice, including an Israeli practice of success to deduct results and models to build an ecosystem in Azerbaijan. The aim is to determine factors that made the Israeli ecosystem successful and study if these factors can be applied to the development and implementation of similar benchmarks in Azerbaijan. The methodology that is used for this research is the case study from Israel. Through systematic analysis and logical generalization, the paper analytically discusses and deducts conclusions from Israel's experience to spell out some key public policy lessons. While the paper finds out that the R&D grants, venture capital policies, developing skilled human capital and public-private partnerships were the reasons of the success of Israel, this paper also determines that government played a key role in stimulating these policies with successful outcomes in successful practice. The limitation of the research with the case is the generalizability of the case study. The practice of Israel does not mean that the similar practice will be successful in Azerbaijan.

Keywords: *Business Model, Ecosystem, Innovation*

1. INTRODUCTION

Innovation has become an essential concept in the economic growth related to the rapid development of Information Communication Technologies (Mercan and Göktaş, 2011, p. 1), and building a successful innovation ecosystem is an essential factor in the growth and global development. Scholars in economics study what the prerequisites are contributing to the construction of a sound innovation ecosystem. At the same time, the establishment of a favourable innovation ecosystem remains an essential policy priority for the government of Azerbaijan as a part of a global trend and requirement of a modern economic system. President of the Republic of Azerbaijan signed a decree on the establishment of the Innovation Agency under the Ministry of Transport, Communications and High Technologies of the Republic of Azerbaijan on November 6th, 2018. The Innovation Agency to be established in 2019 will be a coordinating body to draft and realize an innovation roadmap of a country's ecosystem.

Considering the above-mentioned issues, studying the world practice in the case of Israel is imperative from an academic point of view to define policy lessons for thriving innovation policy and investigate the possibility of implementation of related benchmarks in Azerbaijan.

After the establishment of the State of Israel in 1948, it was remaining an underdeveloped and rural country negatively affected by the war. However, Israel could successfully make a huge transformation into a global innovation powerhouse with multibillion innovation companies (David, 2016, p. 26). Haan and Golany (2011, p.130) determine Israel as a nation of innovation and entrepreneurship. In spite of its remote location, today Israel is a leader of medical, automotive technology and FinTech (World Finance, 2018). Encouraged by Intel's entrance into the Israeli market in 1974, hundreds of multinational corporations started investing in the high-tech sector in Israel (World Finance, 2018). Israel's innovation ecosystem can be mentioned as a good sample of success. As of September, 2nd2018, multinational companies run 344 R&D centres in Israel (Haaretz, 2018). The companies that opened R&D centres in Israel include Facebook, General Electric (GE), Barclays, Google, IBM, PayPal, Dropbox, Huawei (Nocamels, 2018). Based on an available data, more than 20 billion dollars were spent for acquiring Israeli companies by multinational giants such as Facebook, Grubhub and Salesforce in 2018, while accurate numbers must be larger (Feller, 2018). Venture funds such as Sequoia Capital, Greylock, and Nokia Ventures have a strong presence in Israel (Kalish & Avni, 2016). The above-mentioned accomplishments, as well as the inflow of international venture firms into Israel, have been possible due to the uniqueness of innovation ecosystem in Israel. Lacked an abundance of natural resources, the priority of Israeli government was to innovate an economy since its early days. This paper will show that the government of Israel did not only pursue an active policy in terms of distributing R&D grants and funding for venture firms, but also stimulated the emergence of start-ups, public-private partnerships, and provided skilled human capital with right resources in order to create a strong innovation ecosystem.

2. THE CONCEPT OF INNOVATION ECOSYSTEM

Before we started to find out policy lessons for building an innovation ecosystem in Azerbaijan on the basis of the study of Israeli practice, this concept must be clarified.

2.1. What is Innovation?

Avidor writes that 'innovation is the conception, design, and implementation of new products and processes or changes to existing products and processes that create value for society' (Getz and Segal, 2008; referenced by Avidor, 2011, p. 4). Avidor mentions two forms of innovation. The first type of innovation which he calls 'high-order innovations' include the creation of new and disruptive technologies/solutions. The second type of innovation which he describes as 'low-order innovations' include small applications to enhance the efficiency of the existed technologies/processes (2011, p.4). Historically speaking, regardless of their low and high order, innovations have always served to the consolidation of economic efficiency and bolstered economic & societal development. Today's the most fortunate companies including Apple, Google, Alibaba, Microsoft, Facebook, IBM, Samsung, Toyota, SpaceX, and Amazon have reached a pinnacle of success thanks to their innovative products. Wealth creation has always been related to innovation (Jackson, 2015, p.1).

2.2. What is an Innovation Ecosystem?

'The term innovation ecosystem refers to a dynamic, interactive network that breeds innovation'(Oksanen, Hautamäki, 2014, p. 4). A widely believed agreement is that the main parties of innovation ecosystem include academic institutions, government agencies, policy-makers, research centers, venture funds, large companies and start-ups (Oksanen, Hautamäki, 2014, p. 4-5).

Briefly speaking, the development of an innovation ecosystem depends on the availability of skilled labor, research institutions, funding as well as the availability of private or government-sponsored infrastructure. Silicon Valley is a well-known example of an innovation ecosystem. India and Israel can also be mentioned as good examples of innovation ecosystems too. 'An innovation ecosystem is said to be thriving and healthy when the resources invested in the research economy (either through private, government or direct business investment) are subsequently replenished by innovation induced profit increases in the commercial economy' (Jackson, 2015, p.4). A strong ecosystem requires cooperation among individual investors, government agencies, and research centers (Wessner, 2004, p.1).

2.3. What are criteria of a sound Innovation Ecosystem?

Avidor elaborated its four-factor framework which highlights the importance of four criteria for a sound ecosystem which includes the availability of financial capital and skilled human resources, economic incentives, access to information (2011, p. 4). Despite the fact that the importance of these factors must be recognized, the role of government is unavoidable for consolidating an innovation ecosystem. Meanwhile, the government can not only play a crucial role in facilitating collaboration but also can support programs to create incentives for private investors to invest in innovative products/solutions. Investing in innovative products is deemed to be risky for private investors, as there is not an uncertain probability of success.

3. THE CASE OF ISRAEL: POLICY LESSONS FOR AZERBAIJAN

As mentioned earlier, Israel is one of the most developed countries which possess a well-functioning innovation economy. Multinational companies and international venture funds have actively participated in investing in Israeli technology companies and start-ups. It was Israeli governments' programs that made an effective innovation ecosystem. Therefore, it is a good case for an empiric study to understand the role of government in innovation policy. In 1948, when the State of Israel was established, it was a poor and agricultural country. Its economy was weakened by the war, and it had a little prospect of development. The country had scarce natural resources. Therefore, the government of Israel aspired to establish a robust innovation economy from the first days of its foundation (Claros, Mia, 2006, p.89). Claros and Mia (2006, p.89) write that 'recent Israeli economic history is an excellent showcase of the key contribution efficient government intervention can make to the overall innovation potential and ICT readiness of a nation'. As illustrated in the four-factor framework of Avidor and in the earlier theoretical studies, a number of primary factors are prerequisites to building a sustainable innovation ecosystem (2011, p. 4). These elements include the availability of financial capital, human resources, economic incentives, information access, as well as the collaboration and interaction between government, the private sector, educational & research centers and individual entrepreneurs who are aspired to produce innovative products/ solutions (Avidor, 2011, p.4).

3.1. Venture capital, public-private partnership & infrastructure, and human capital support policies in Israel

Avidor (21, p.21) mentions that 'Israel's policy planning, responses to market developments, and luck led to the creation of proper economic incentives, fluid access to financial capital, skilled human capital and robust connections to global information networks for the emergence of an innovation economy'. The most important factor for an innovation ecosystem is the availability of adequate financial capital. 'Innovation typically requires investment capital to pay for labor, office/lab space and/or materials. High-order R&D investments tend to require large up-front, uncollateralized cash and only offer varying probabilities of success' (Avidor, 2011, p. 6).

The requirement of uncollateralized cash and uncertain probabilities of success makes innovation project riskier for individual investors. Thus, a developed venture fund industry is crucial to financing inventions and technological creativity (Claros, Mia, 2006, p.99). 'Venture capital (VC) firms are specialized financial intermediaries formed to invest in startup firms on behalf of a pool of investors' (Avidor, 2011, p.9). Especially, the involvement of international venture funds is useful in countries with limited financial capital. Israel has also lacked VC funds in the early 1990s since the country had 2 VC funds (Avnimelech, 2009, p.12). The creation of the VC fund industry was a crucial priority to provide funding for innovative programs. Therefore, the most successful program of the Israeli government for nurturing VC fund industry, involving international capital as well as providing cooperation between private and government sectors was 'Yozma'. The program was launched in 1992 with the goal of creating a competitive VC industry and involving international VC funds in Israel (Avnimelech, 2009, p.4). Eventually, a 100M$ state-owned VC fund was founded with the first objective of investing in 10 private funds (80M$) and with the second objective of making direct investments in high tech companies in Israel (Avnimelech, 2009, p.5). The main regulation to invest in VC funds was that Yozma fund would invest 40% in a newly established VC fund by stipulating that a fund has to be an independent Israeli fund, has to raise the rest of finance (60%) by establishing limited partnership with an international venture fund while most investment decisions have to be made by international investors (Baygan, 2003, p. 16). Eventually, the program 'Yozma' did not only become a cornerstone program in building VC industry in Israel but also it provided early-stage funding for Israel companies to develop their products (Yin, 2017). In the 1990s, the venture capital investments increased from $58 million by $3.3 billion thereby making Israel second in the private equity market after the US (Yin, 2017). Between 1990 and 2008, there was a dramatic increase in the number of active VC funds in Israel. The number of venture funds increased from 2 to 68. Furthermore, Yozma promoted the cooperation between professional American VC funds and local Israeli funds as well as private and government sector. As a result of the involvement of international funding in locally established VC funds, Yozma funds increased by 250 million US dollars (Baygan, 2003, p. 16). As the availability of financial capital was one of the key factors for a sound innovation ecosystem, the Israel government did not only play an important role for providing funding for Israeli startups but also stimulated the creation of VC funds industry and the entrance of international VC funds into Israeli market under the Yozma program. Yozma program is considered an important program in VC fund policy. 'Inbal' was another program of Israel government for involving international investment in the innovation industry. The program which started in 1991 offered 70% equity guarantee for international VC funds which want to invest in Israeli start-ups (Baygan, 2003, p. 16). Although Inbal is not considered as successful as Yozma, it is important to note that the program can be characterized by its uniqueness for both attracting international VC funds by minimizing their risks. The program can offer incentives for global VC funds to invest in Israel start-ups. The third promising initiative that was designed to fill the funding gap for early innovation projects was the Technological Incubators Program of the Israeli Innovation Authority which was established in 1991. The Technological Incubators Program established 24 incubation centers (Yin, 2017). The program offered $500,000 to $800,000 for funding and incubating early-stage ideas for the period of two years (Yin, 2017). Incubators are hubs with the appropriate human and material resources which carried 1300 projects between 1991 and 2008 while involving additional private investment up to 3 billion US dollars (Avidor, 2011, p. 28). By initiating the Technological Incubators Program, the Israeli Innovation Authority did not only offer to fund for early-stage ideas that can be found risky by private investors but also established an extensive network of technology hubs to generate viable projects. In addition to the above-mentioned programs, the government of Israel offers R&D grants, especially to those products and solutions that are related to

innovation. Thus, the Office of the Chief Scientist was established in 1969 to encourage research and development in indusial innovation, and it distributed R&D grants (with an annual budget of $500 million) between 1988 and 2000 (Avidor, 2011, p. 25). Israeli government's programs including Yozma, Inbal and the Technological Incubators Programs provided seed funding and R&D grant for early-stage ideas. The availability of financial capital is an essential component of a sound innovation ecosystem, and the programs of Israel created the emergence of VC industry and grants for funding early-stage ideas. As mentioned earlier, interaction and cooperation between private sectors, government, and individual investors are another essential component of a sound innovation ecosystem. It is important to mention that Yozma, the Technological Incubators program and Inbal promoted the cooperation and interaction between the parties of innovation. Another interesting program of the Israeli government was Magnet which started in 1993. Under this program, multi-year R&D grants were offered for an academic institution to cooperate with an industrial firm to produce innovative technologies/solutions, while the program provided 66% of the total R&D budget (Claros, Mia, 2006, 98). The program played an important role in facilitating cooperation between the academic and industrial sector and initiated the establishment of 31 consortia by 2005 (Claros, Mia, 2006, 98). The program can also be unique to facilitate interaction, inter-linkages, and cooperation between industry and university sector, and it creates incentives for a business sector to cooperate with universities and research centers. Uniqueness and effectiveness of Israeli government's programs is that the government took the responsibility of risky funding for technological start-ups, creative ideas and venture funds, while it offered economic incentives and infrastructure support (R&D grants, venture capital funding, early-stage investment in start-ups) for various sectors (venture funds, educational institutions, international venture funds, start-ups) to cooperate and interact with each other. While analyzing all programs, almost all of them intended not only funding but also promoting strong cooperation. The availability of funding stimulated the emergence of new start-ups, while venture policies fostered the dramatic increase in the number of venture funds. Development of human resource is another criterion for an effective innovation economy. Since Israel lacks natural resources, the governments another priority was to develop human capital through building a quality education system. Skilled engineers, scientists, and inventors can contribute to research and innovative product development. When the state of Israel was founded in 1948, another priority of the government was to enhance the quality of education and academic excellence with the special focus on preparation and training of world-class engineers, scientists and industrial managers (Claros, Mia, 2006, p. 91). In the early 1970s, a number of universities in Israel were offering world-class research and education including Ben Gurion University in Beer Sheba, the Technion in Haifa, the Weizman Institute in Rehovot, Hebrew University in Jerusalem, and the Universities of Haifa and Tel Aviv (Claros, Mia, 2006, p. 91). In the early 2000s, the Israeli workforce was one of the most educated in the world having world-class specialists in agriculture, engineering and natural sciences (Avidor, 2011, p.43). Finally, the activity of Innovation Authority of Israel is interesting to study from the perspective of international cooperation. Along with distributing R&D grants, the authority conducts its operation in Europe, Americas, Africa, and Pacific to find global opportunities for Israeli companies and cooperate with multinational corporations for joint projects (Innovation Israel, 2018).

3.2. Policy Lessons for Azerbaijan

A number of policy lessons can be deducted from the case of Israel to build an innovation ecosystem in Azerbaijan. First of all, the role of government is inevitable in innovation management and funding. Second, the Israeli case shows that the development of the innovation economy requires a huge financial investment.

Since these kinds of investments are risky for private companies, the government is supposed to both provide incentives and sponsorship in the sector innovation. Programs Yozma and Inbal can be mentioned as successful examples.

3.3. Development of VC fund industry

As the Israeli case shows the availability of capital and development of the VC industry is a key area in the development of the innovation ecosystem. Under programs of Yozma and Inbal, the government of Israel did not only encourage the development of VC fund industry but also created incentives for foreign venture funds to enter Israel. This can be a good public policy lesson for Azerbaijan as the government of Azerbaijan should consider in both enacting laws on the management of VC industry as well as providing financial support for venture funds under its Innovation Agency. As Azerbaijan is a small country, it lacks financial capital. There is a need for contributions from international venture funds. The government venture fund can be established and should offer incentives for foreign venture funds. Involvement of foreign venture funds in Azerbaijani is also good practice from the perspective that the country lacks the professional expertise in terms of making investment decisions. Development of VC fund industry should be a priority in the innovation roadmap of Azerbaijan.

3.4. Provision of the collaboration between academia, industry, and government

The second policy lesson for Azerbaijan is that interaction and cooperation between the government and industrial sectors as well as education/research institutions are very important. There is not a culture of cooperation between the industrial sector and education/research institutions in Azerbaijan partially because it was a part of former the Soviet Union. As Israel's experience shows, the Magnet program incentivized the development of cooperation between industrial and academic sector by providing grants to develop innovative products. It is necessary to develop a similar grant scheme under the Innovation Agency in Azerbaijan to offer grants in reasonable amounts to facilitate the cooperation between industry and research. It will definitely increase interests of academic and industrial sectors to apply for grants. There are many academicians and researchers in Azerbaijan who have theoretical inventions, but they really need funding for development, testing, and commercialization. Cooperation with the industrial sector for commercial feasibility is a must. The design and implementation of similar grant schemes will definitely contribute to the development of interaction between various sectors and offer further incentives for the cooperation.

3.5. Funding support, infrastructure, and resource provision

Another lesson from Israel can be deducted from Technological Incubators Programs which supported the development and realization of proper funding, incubation and infrastructure support. Surely, development a favorable infrastructure and technological incubators with the right resources and available funding should be considered as a good benchmark for Azerbaijan too. Establishment of incubation centers, hubs and provide the incubation programs with the right resources and labs should also be considered for Azerbaijan. As Yozma experience shows that state-funding scheme should be created for start-up companies. Having a government funding scheme and resources will definitely stimulate the emergence and the growth of Azerbaijani start-ups. A good lesson is that the formation of proper innovation infrastructure and its maintenance should be a government task. Investment in start-ups can be riskier from cultural and business points of view. The government can establish a program to provide equity guarantees for private investors too.

3.6. Development of human capital

Israeli experience shows that the availability of human capital is also important for an innovation ecosystem. The government should cooperate with universities to build the capacity of departments that provide technical education programs while specialized training courses are for managers and engineers. Study tours, international training courses and increasing the capacity of key participants of the innovation ecosystem should be useful from this point of view. Meanwhile, funding schemes and R&D grants can be provided with Technological Incubators Program or under the program like Magnet which offers to fund but also stimulates a business sector and universities to cooperate on the development of certain innovation programs.

3.7. International collaborations

Final policy lesson for Azerbaijan is that international cooperation should be maintained as a priority. Economic, tax and other types of incentives should be created to involve R&D centers of foreign companies in Azerbaijan as well as provide the involvement of foreign venture funds. Israeli experience shows that the government played a key role in almost all levels of development of the innovation ecosystem in Israel. The role of government should also be organized in a way that it can find our global opportunities of cooperation for companies. At the same time, the government should provide the companies with resources to get access to international sources of finance and collaboration.

4. CONCLUSION

This paper reviewed and deducted policy lessons for Azerbaijan by analyzing and discussing the policies and programs in Israel for building innovation ecosystem. The main finding of this paper is that the government has a vital role in building the innovation ecosystem, as the Israeli case showed. The paper deducted that several factors and policies of Israeli government made it one of the best innovation ecosystems in the world, including VC fund policies, R&D grants, facilitating public-private partnership support as well as sponsorship support for start-ups. Based on Israel experience, the paper determined several key policy lessons for Azerbaijan which include the development of VC fund industry, provision of cooperation between academia, industry, and government, start-up funding, infrastructure support, human capital development and international cooperation. The paper also determined that a successful innovation economy depends on the formation of a successful innovation ecosystem. Innovation ecosystem is successful when there is cooperation between various sectors and developed VC fund industry. The successful government programs can support developed venture capital industry, facilitate the cooperation, develop infrastructure and create incentives for international cooperation. The main directions for Innovation Agencies were determined which include:

1. Active participation in the development of VC fund industry;
2. Provision of incentives for the cooperation between industrial sector and research institutions;
3. Fostering the commercial and R&D cooperation between start-ups, multinational companies, and government agencies;
4. Rendering investment grants to start-ups;
5. Development of innovation infrastructure, hubs and technological/business incubators;
6. Supporting and facilitating international cooperation and linkages.

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IMPLEMENTATITON OF NEW APPROACHES IN RESEARCH OF INNOVATIVE SPECIAL POLYMER COMPOSITES

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ABSTRACT

At present, it is crucial for companies to remain in the global market and to become more competitive in their position through the implementation of innovation policy. Major innovations are the product innovations where significant improvements can be reflected in technical specifications and new materials, that are significantly different from the original products, thus replacing the products and materials that are absent for the needs of different sectors of industry. Replacement of existing materials in the production of final products by new, forward-looking materials contribute to preserving and increasing market. Solving this relatively complex problem is to focus attention to the manufacturing process that delivers prospective products from new materials with minimal adaptation of technological processes and repeatable economically efficient and environmentally friendly production. At present, the field of manufacturing of special composite materials is considered to be key in the view of new, safer, technically more environmentally friendly and economically more efficient applications for various industries. New trends in fibers development are going towards widening the range of fibers from the classic types of fiber-forming polymers. Polymer blends where a large number of mixtures with a wide range of performance can be prepared from a limited number of ingredients are becoming more important. In our research based on the study of the structural characteristics of polymer mixtures and the determination of the optimal technological conditions of the manufacturing process we have experimentally prepared new types of special composites, which are applicable as materials for collection of hazardous compounds in air protection sector as effective filters.

Keywords: *Effective manufacturing processes, Product innovation, Special polymer composites*

1. INTRODUCTION

Major innovations are the product innovations where significant improvements can be reflected in technical specifications and new materials, that are significantly different from the original products, thus replacing the products and materials that are absent for the needs of different sectors of industry. Extending the range of existing materials or replacing them with new, innovative materials for different sectors of the industry is currently an extremely up-to-date direction for product innovation (Linderman et al., 2013; Ružinská, 2017). At present, the field of manufacturing of special composite materials is considered to be key in the view of new, safer, technically more environmentally friendly and economically more efficient applications for various industries (especially engineering, construction, automotive, chemical, rubber and textile). New types of materials for preparing composite materials with a wide range of functional properties and higher added value are currently being preferred, prepared by modifying and optimizing the manufacturing process from an existing assortment of fiber-forming polymers for automotive, civil engineering, woodworking, chemical and other sectors of industries (Bhattacharyya et al., 2009; Lindermann, 2013; Alexandrescu et al., 2017; Ružinská et al. 2014, 2018). Predictions in the development of chemical fibers in the world point to a further increase in the proportion of fibers with specific characteristics such as ultra-fine fibers, particularly beneficial for use in composite materials.

New trends in fibers development are going towards widening the range of fibers from the classic types of fiber-forming polymers. In fibers industry now increasing attention is paid to the polymeric system type "polymer-polymer", usable in composite materials. Polymer blends where a large number of mixtures with a wide range of performance can be prepared from a limited number of ingredients are becoming more important (Han, 2007; Alexandrescu et al., 2017). Preparation and diversifying fibers may also be based on intentional physical modification of polymeric systems in the preparation of fibers. Particular attention will be paid to the preparation of fiber-based bicomponent and composite systems. This type of modification is possible to prepare fibers with improved functional characteristics (Ružinská, 2014). Practically the most important method of preparing polymer mixtures is mixing the components in the melt. If mixing lasts long enough, and the system does not take chemical reactions a dynamic equilibrium between breakup and coalescence of particles is created in the mixture (Cool et al., 2005; Gold et al., 2017). Polymeric blends form a group of polymeric materials, the relevance of which is recently growing. This is due to the fact that it is possible to produce a large number of mixtures with a wide range of performance from limited number of components. Polymers suitable for the preparation of fiber-forming mixtures are mostly thermodynamically intolerant ones, which prevents the formation of a homogeneous system (Staropoli et al., 2017). Thermodynamic compatibility is the ability of polymers to create a homogeneous, single-phase, thermodynamically stable system (Van Hemelrick et al., 2004). In terms of intermolecular action we distinguish incompatible or pseudo compatible polymer blends, to which the abovementioned condition does not apply. The compatibility of components of the mixtures is the result of interactions between the same (cohesion), respectively different components (adhesion)**.** Compatibility is usually manifested in polymers of similar chemical composition. Fiber-forming polymers (PP, PA_6, polyester, polyolefins) belong to groups of thermodynamically immiscible (intolerant) polymers. The outcome of polymer intolerance is the formation of the boundary as a result of the increase in the enthalpy during mixing of polymers (Tol et al., 2004; Cook et al., 2005; Zheng et al., 2007; Gold et al., 2017). In our research, we focused on the experimental determination of optimal conditions for the preparation of polymeric bicomponent mixed fibers from polymeric mixtures for thermodynamically incompatible polymers (PP, PA6), and we studied important primary rheological characteristics for systems with the addition of the interfacial reagent.

2. THEORETICAL FOUNDATIONS OF PREPARATION OF POLYMER MIXTURES

Polymer blends are bi-component or multi-component polymer systems obtained by technological methods of mixing two or more polymers. This is due to the fact that it is possible to produce a large number of mixtures with a wide range of performance from limited number of components (Cook et al., 2005; Gold et al., 2017). Preparation of polymer blends belongs to one of the physical modifications, which result in changes in the supramolecular polymer structure and also a change in the original properties of the base polymers occurs (Scholz et al., 1989; Park et al., 1990; Han, 2007; Bhattacharyya et al., 2009). The most important method of preparing polymer mixtures is mixing the components in the melt (Pötschke et al., 2003). Each operation of mixing must have a process of distribution and dispersive mixing that is a mixing operation must be carried out such that the individual components (Scholz et al., 1989; Staropoli et al., 2017):

- are evenly distributed throughout the mass
- give strict deformation "history" of mixing.

Processes of create of polymer blends can be separated into operations involving formation of mixtures and processing operations. Mixing the polymers via extrusion is one of the easiest methods for preparing blends.

During the mixing operation the components of the mixture are distributed and deformed in the molten state to form a dispersion. A successful outcome of this operation is conditioned by the uniformity of size and dimensions of the dispersed or continuous phase (Scholz et at., 1989). During subsequent processing operations the phase structure of the mixed system can be further modified. There are changes during which dimensions of phases change. Coalescence takes place simultaneously (combining) to the particles of larger sizes (Cook et al., 2015; Mehrabi et al., 2015; Alexandrescu et al., 2017). In general mixing can be expressed as the growth of interfacial interface and drop in "furrows" of thickness or increase in the degree of segregation. Only macroscopic (technological) miscibility is achieved during the mixing of polymers (Steinmann et a., 2001). The mixture does not get divided when being stirred in the molten state into separated macroscopic phases due to the rapid rise in viscosity accompanying the cooling process. However, the separation takes place at the microscopic level and micro-heterogeneous structure is reflected in the properties of the system. Such mixtures also include mixtures of basic fiber-forming polymers. The structure of polymer blends after solidification is very complex and depends primarily on the rheological and thermodynamic aspects of mixing polymer components (Tol et al., 2004; Zheng et al., 2007; Van Hemelrick et al., 2004). Polymers suitable for the preparation of fiber-forming mixtures are mostly thermodynamically intolerant ones, which prevents the formation of a homogeneous system. Thermodynamic compatibility is the ability of polymers to create a homogeneous, single-phase, thermodynamically stable system. The stability of the created phase morphology is highly dependent upon the addition of interfacial agent, ensuring improved dispersibility and improved adhesion at the interface, thus improving the physical and mechanical properties of the polymer system (Ružinská, 2017; Mehrabi et al., 2015; Gold, 2017). In terms of intermolecular action we distinguish incompatible or pseudo compatible polymer blends, to which the abovementioned condition does not apply. The compatibility of components of the mixtures is the result of interactions between the same (cohesion), respectively different components (adhesion)**.** Compatibility is usually manifested in polymers of similar chemical composition. Fiber-forming polymers (PP, PA_6, polyester, polyolefins) belong to groups of thermodynamically immiscible (intolerant) polymers. The outcome of polymer intolerance is the formation of the boundary as a result of the increase in the enthalpy during mixing of polymers (Cook et al., 2005; Gold et al., 2017). The relationship of deformation and flow of polymers - as significant parameters is studied and described by the rheology of polymers. Rheological properties are evaluated in terms of the orientation of the macromolecules in the flow deformation, which is related to the formation of the structure of the polymer and filament current and the processing properties of the polymer (Tol et al., 2004; Van Hemelrick et al., 2004; Hun, 2007; Staropoli et al., 2017). It is important to find out the relationship among the characteristics of the rheology of polymer melts viscosity belongs to one which is affected significantly by the factors such as temperature, polymer molecular weight, molecular weight distribution, shear values, additives in the polymer. Rheological properties of polymer melt mixtures are determined by the nature of the individual components as well as by the process of forming structures in the flow conditions (Cook et al., 2005; Han, 2007; Robertson, 2007; Zheng et al., 2007; Mehrabi et al., 2015; Gold et al., 2017; Ružinská et al., 2018).

3. EXPERIMENTAL PART

In experimental part were prepared polymer blends (mixtures) by remelting a mechanical mixture of granules of polypropylene (PP) and polyamide (PA_6), resp. interfacial agent copolymer polypropylene – maleic anhydride (MAH) using twin screw devices for various experimental determination manufacturing temperatures (from phase structure polymers) (Ružinská et al., 2017, 2018).

In order to study the impact of the ratio of the components and contents of interfacial agent these series of mixtures were prepared (Ružinská et al., 2017, 2018):

- Mixtures of various proportions of the components of polypropylene and polyamide 6.
- Mixtures prepared without interfacial agent were labelled PP/PA_6 and mixtures prepared by mixing polypropylene with polyamide 6, modified by 4% copolymer PP-MAH, were identified as PP/PA_{6M}. The following mixtures were prepared without addition interfacial agent: PP/PA_6 90/10 and 80/20; PP/PA_{6M} 90/10, 80/20, 70/30, 60/40, 50/50.

3.1. Determination of rheological properties of polymers using capillary viscosimeter

Rheological properties were studied on semi-automatic discharge plastometer (capillary viscosimeter).The melt is extruded from the plasthometer by a piston with weights that are placed in top of the device. A photocell measures the stream-time of a polymer of constant volume that is being extruded at the temperature: 260, 270 °C.
For the calculation of the apparent shear viscosity (Pa.s) from the shear parameters we used the equation (1):

$$\eta = \frac{\tau}{\gamma}$$

where: τ – is shear stress (Pa) , γ - shear rate (s^{-1}).
Calculated values of the difference of the actual and additive values of apparent viscosities (Pa.s) of polymer mixtures was determined according to (2):

$$\Delta\eta = \eta_{exp} - \eta_{adit}$$

In our research we then compared the apparent viscosities of the varied polymer mixtures with the viscosities calculated according to the Ostwald de Wael reological equation.

4. RESULTS AND DISCUSSION

Rheological properties of polymer melt are one of the decisive processing properties of the polymer in fiber forming processes including the structures and properties of the final product. For the evaluation of the reological properties on capillary viscometer we used a mixture of PP/PA6M with a changing content of the dispersed component (polyamide containing 4 % wt. of interfacial agent) in the range of 10 % to 50 % wt. To assess the effect of interfacial agent to flow parameters of the mixtures we evaluated PP/PA_6 mixture prepared without interfacial agent containing polyamide 6 in the amount up to 20 % wt. Mixtures prepared without the interfacial agent,with more than 20 % wt. of polyamide phase, were very badly workable and practically not forming any fibers. The first step the solution to find appropriate processing conditions for the preparation of thermodynamically compatible polymer compositions was based on the results of our previous research on the specification of the rheological characteristics of the Oswaeld de Wael and Carreau rheological models (Ružinská et al., 2017, 2018). In the following stage, we monitored the change in apparent viscosity of the mixtures depending on the composition and content of the interfacial agent. The measured and evaluated results are shown in the Figures 1 - 4.

Figure following on the next page

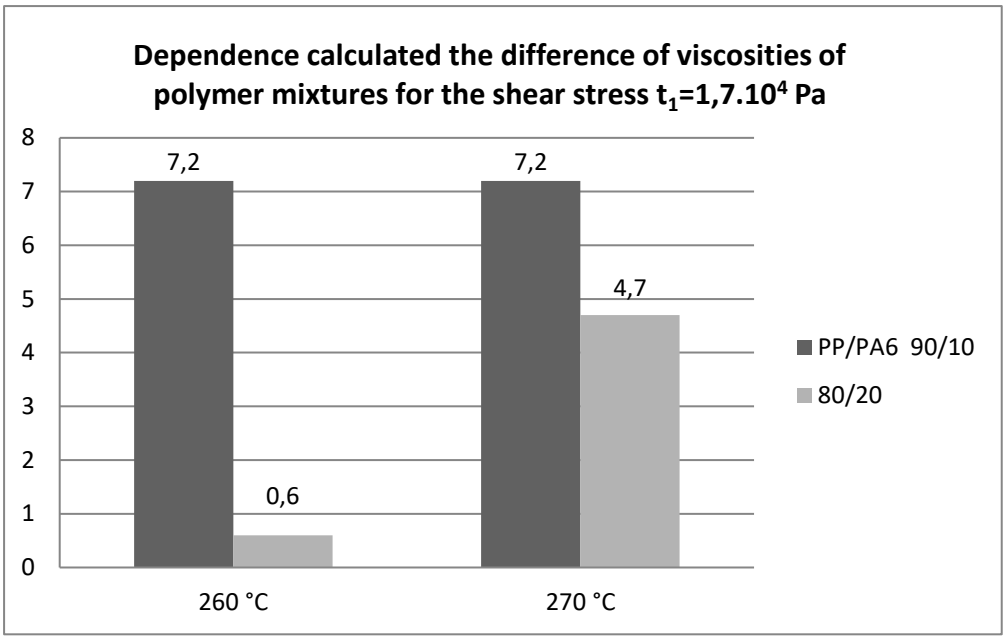


Figure 1: The dependence calculated the differences of viscosities of unmodified polymer mixtures PP/PA$_6$ for the shear stress $\tau = 1.7x10^4$ Pa at the various processing temperature (Source: author)

In the Figure 1 and Figure 2 we can see the dependence calculated the differences of viscosities of unmodified polymer mixtures PP/PA$_6$ for the shear stress $\tau = 1.7x10^4$ Pa at the various processing temperatures – 260, 270 °C. In the Figures 3, 4 are shown the dependence calculated the differences of viscosities of modified polymer mixtures PP/PA$_{6M}$ 90/10, 80/20, 70/30, 60/40, 50/50 for the shear stress $\tau = 1.7x10^4$ Pa at the various processing temperatures – 260, 270 °C.

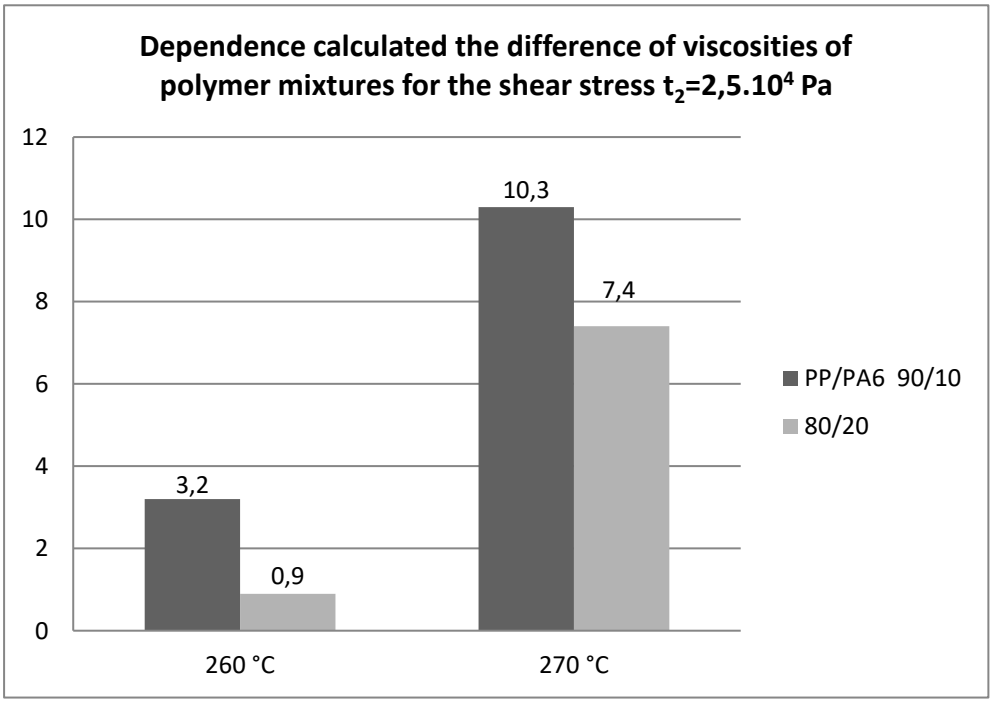


Figure 2: The dependence calculated the differences of viscosities of unmodified polymer mixtures PP/PA$_6$ for the shear stress $\tau = 2.5x10^4$ Pa at the various processing temperature (source: author)

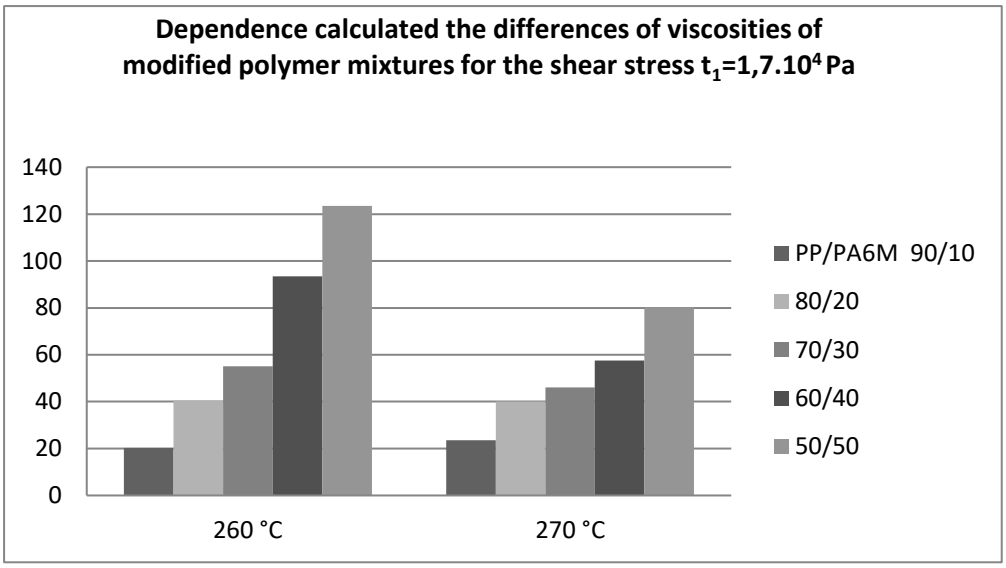


Figure 3: The dependence calculated the differences of viscosities of modified polymer mixtures PP/PA$_{6M}$ for the shear stress $\tau = 1.7x10^4$ Pa at the various processing temperature (source: author)

The role of interfacial agent in the formation of the structure of the mixtures, reflected in the rheological properties, was examined from the dependence of the apparent viscosity on the shear stress of the mixtures prepared by using intermediate stage respectively mixtures without the interfacial agent. While the apparent viscosity values of mixtures of PP/PA$_6$ (without intermediate stages) are close to the additive values, the apparent viscosities of the mixed melt prepared by using intermediate stage have significantly higher values (Figure 1, 2).

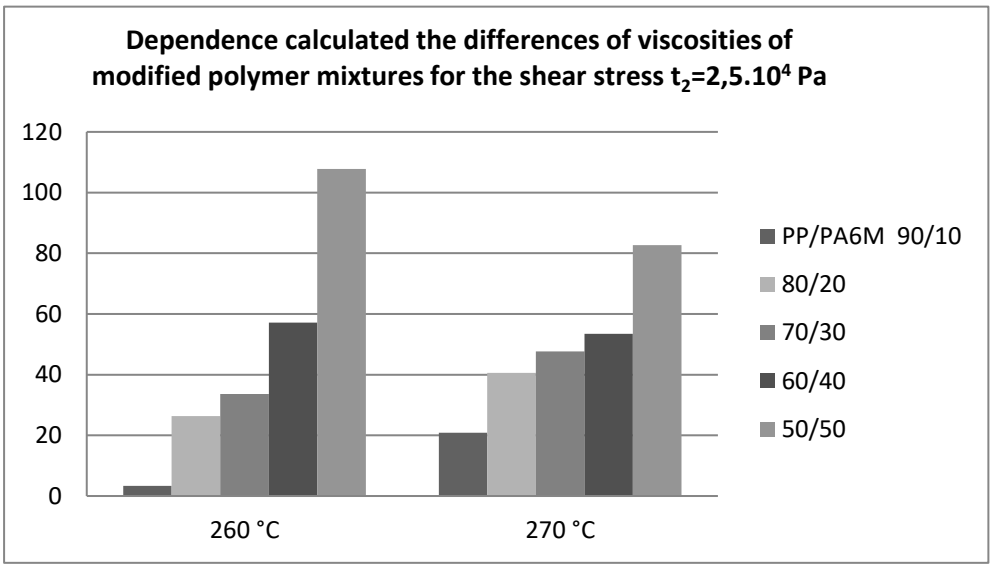


Figure 4: The dependence calculated the differences of viscosities of modified polymer mixtures PP/PA$_{6M}$ for the shear stress $\tau = 2.5x10^4$ Pa at the various processing temperature (source: author)

Viscosity values (Figure 1 - 4) of the mixtures increase with increasing content of the polyamide components, and their values are significantly higher than the additive values calculated from the pure components. Presumably, this is an indication of increasing tolerance of the system due to the high degree of components dispersion (Ružinská, 2017; Gold et al., 2017). The role of interfacial agent in the formation of the structure of the mixtures, reflected in the rheological

properties (Cook et al., 2005; Zheng et al., 2007), was examined from the dependence of the apparent viscosity on the shear stress of the mixtures prepared by using intermediate stage respectively mixtures without the interfacial agent (Ružinská et al., 2018).

5. CONCLUSION

In our research, we focused on the experimental determination the optimal conditions for the preparation of polymer blended by rheological characteristics. These polymer blends are used for manufacturing processes of preparation special fibrous polymer composites usable as efficiency filters in various industrial sectors. The evaluation of rheological characteristics (apparent viscosities) showed the following: polypropylene and polyamide 6 polymer blends, prepared without the use of interfacial agent can be prepared in conventional technological conditions of fiberization only at low contents (up to 20 wt. %) of the dispersed component. However, by using the interfacial agent it is possible to prepare PP/PA6 composite fibers in full concentration ratios. PP-MAH interfacial agent increases the degree of dispersion of the dispersed phase in the matrix of polypropylene, by which we get increased thermodynamic compatibility of the polymer components of the mixed fibers. We can assume that the increasing homogeneity of dispersion was due to increased technological compatibility of the components of the mixture. The degree of dispersity of the mixture increases because more interactions of macromolecular constituents during deformation are created. This confirms the crucial role of interfacial agents in increasing the tolerance of the system (Ružinská, 2017; Staropoli, 2017). However, by using the interfacial agent it is possible to prepare PP/PA6 composite fibers in full concentration ratios. PP-MAH interfacial agent increases the degree of dispersion of the dispersed phase in the matrix of polypropylene, by which we get increased thermodynamic compatibility of the polymer components of the mixed fibers. The addition of interfacial agent improves the degree of dispersity and adhesion at the interface and thus prevents the formation of pores (Ružinská et al., 2018). We expectee that product innovations of new prospective materials are a way of promoting strategic production innovations, and can significantly boost the unique position of a manufacturing companies in a competitive environment. Transfer of research results and its subsequent implementation into the manufacturing processes will allow for a relatively short time to implement product innovations with the expected results.

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THE EFFECT OF CAPITAL STRUCTURE ON FIRM EFFICIENCY

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ABSTRACT
Paper considers the impact of cash, debt, trade credit and equity financing on firm efficiency. Paper argues that 1) cash holding negatively affects firm efficiency, 2) debt and trade credit have both positive and negative impact on efficiency, 3) debt and trade credit are more conducive to increasing efficiency than cash holding, 4) trade credit is more conducive to increasing efficiency than debt and 5) the strongest positive impact on efficiency is provided by equity financing.
Keywords: *capital structure, cash, debt, equity financing, firm efficiency, trade credit*

1. INTRODUCTION

The relationship between capital structure and efficiency cannot be ignored because the improvement in the efficiency is necessary for the long-term survivability of the firm. However in some cases, there is a conflict between efficiency and profitability. For example, when lending rates are low, firms can use more debt in order to increase profitability that negatively affects firm efficiency: growth in leverage increases the risk of default that forces firms to hold more cash as a buffer against possible insolvency in the future, which negatively affects return on assets (ROA). There are many empirical and theoretical researches devoted to relationship between capital structure and firm performance. The Modigliani and Miller (1958) claims that in an efficient market which has no tax, no transaction cost, no information asymmetry, the value of a firm is unaffected by how that firm is financed. Thus MM theory predicts that there is no relationship between a firm's capital structure and its performance (Modigliani and Miller, 1958). According to the "pecking order" theory informational asymmetries between the firm and external creditors make external financing more expensive than internally generated funds (Myers and Majluf, 1984). Therefore firms initially rely on internally generated funds (e.g., retained earnings) where there is no existence of information asymmetry, then use debt, then equity (Myers and Majluf, 1984). The agency cost theory suggests that significant amount of cash in balance sheet can generate agency problems, encouraging managers to invest in inefficient projects. According to Jensen a company that uses debt will be more efficient with its spending than a company that generates a lot of free cash as the threat caused by failure to service debt motivates firms to work more efficiently. However, on the other hand, the opportunities for firms to refinance debt reduce the incentives of firms to increase the efficiency for debt servicing. In this regard, paper argues that use of trade credit (installments sale) instead of debt, and prohibition of refinancing trade credit will positively affect firm efficiency. Paper also argues that equity financing is more conducive to increasing efficiency than debt and trade credit. Thus, paper argues that 1) cash holding negatively affects firm efficiency, 2) debt and trade credit have both positive and negative impact on efficiency, 3) debt and trade credit are more conducive to increasing efficiency than cash holding, 4) trade credit is more conducive to

increasing efficiency than debt and 5) the strongest positive impact on efficiency is provided by equity financing.

2. CAPITAL STRUCTURE OF NON-FINANCIAL FIRMS

Debt is typically large source of corporate finance in the USA and Euro area. In 2016 debt (debt securities and loans) amounted to 19% of total assets in the USA and 32% in the Euro area (Figure 1). Liquid assets – consisting of cash, bank deposits etc.– accounted for 6% of total assets in the USA and 7% in the Euro area. In the countries all over the world, share of cash in firms' balance sheets ranges between 10% and 23% (La Rocca et al., 2017).

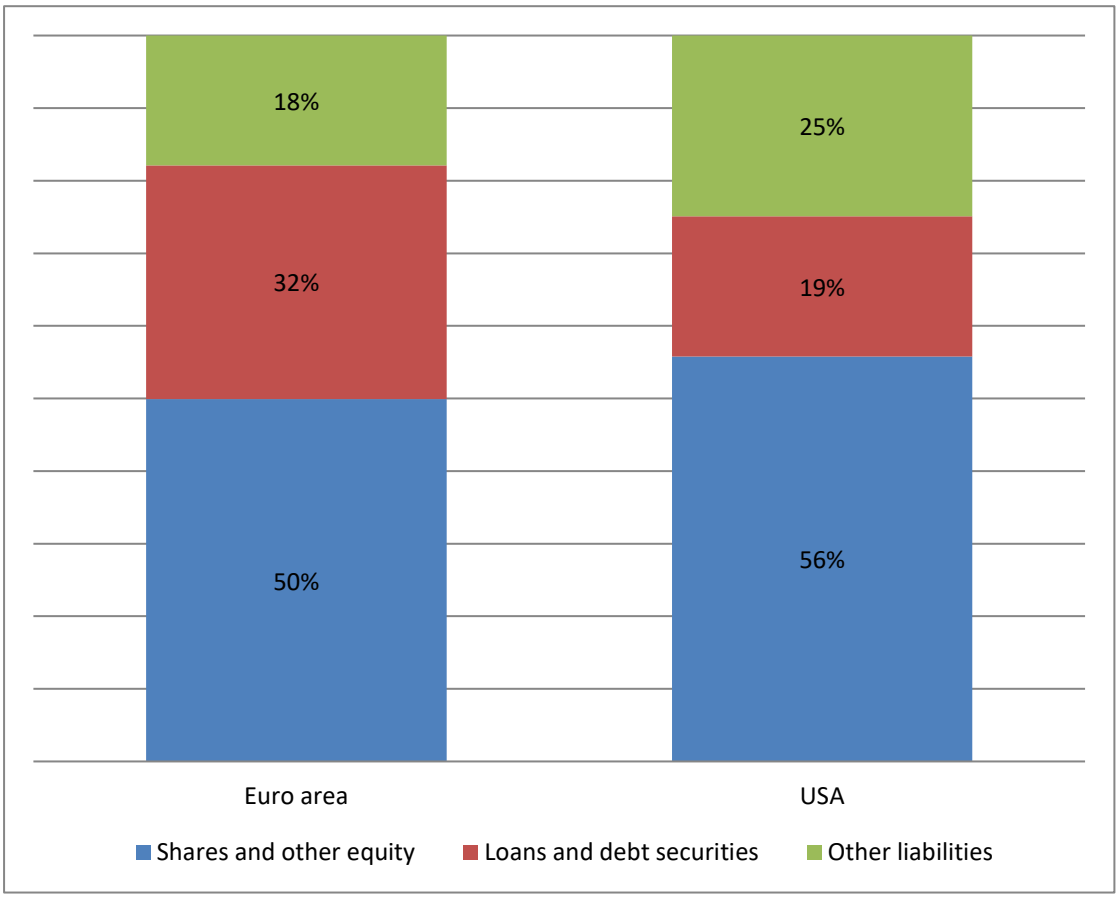


Figure 1: Liabilities of non-financial corporations in USA and Euro area, % of total liability, 2016 (FRS, ECB)

3. CAPITAL STRUCTURE AND FIRM EFFICIENCY

3.1. The effect of cash holding on efficiency

The effect of cash holding on efficiency is ambiguous. On the one hand cash holdings, in line with transaction and precautionary saving motives introduced by Keynes, have a positive impact on firm performance, particularly when the firm faces financial friction and in the presence of high cost of external financing. Cash holding allows firm to avoid the transaction costs of selling illiquid assets, converting them into cash, or using capital markets to raise funds to secure resources to meet payments due. In the precautionary motive, cash holdings function as a buffer against possible adverse shocks in the future. On the other hand cash holding negatively affects return on assets (ROA) as significant amount of cash in balance sheet indicates that a company is not using its assets to generate maximum possible revenue. Significant amount of cash in balance sheet can also generate agency problems, encouraging managers to invest in inefficient projects (Jensen, 1986).

3.2. The effect of debt on efficiency

According to Jensen, debt positively affects firm efficiency (Jensen, 1986). Jensen's argument is that debt creates default risk and the threat caused by failure to service debt motivates firms to work more efficiently (Jensen, 1986). According to this line of thought, debt produces a stimulating effect originating from the obligation to service the debt on time. Thus, according to Jensen, a company that has debt on which cash must be spent will be more efficient with its spending than a company that generates a lot of free cash. However there is negative effect of debt on efficiency of firms. Thus, leverage increases the risk of debt defaults that forces firm to hold more cash as a buffer against bankruptcy. However the increase in ratio of cash to total assets negatively affects return on assets. It would be noted that some authors argue that high level of debt decreases the amount of cash holding in balance sheet (Ferreir and Vilela, 2004). Argument is that high indebtedness of firm could mean that it has easy access to credit and close relationship with banks allows the firm to hold less cash for precautionary reasons (Ferreira and Vilela, 2004). It is true during easy monetary policy when years of cheap money lead firms to hold cash at levels that do not reflect debtor risk, but this is not sustainable as when Central bank tightens policy, level of cash increases. Moreover, the opportunities for firms to refinance debt servicing reduce the stimulating effect of debt on firm efficiency.

3.3. Trade credit and firm efficiency

The other possible source of financing for firms is trade credit (installment sale). A trade credit is an agreement in which a customer can purchase goods, paying the supplier at a later date. Trade credit is essentially credit given by one firm to another, however in Islamic finance trade credit is extended not only by firms but also by banks. As is known, interest on debt is forbidden in Islamic finance, and banks therefore, instead of loan, extend Murabaha trade credit. In particular, banks purchase goods, on the client's request, from a third party and resell it to client in installments at an agreed mark-up. And as in Islamic financial system financing is linked with purchasing goods, firms may not refinance trade credit that forces them to work effectively to pay for the goods. Thus, as trade credits are more conducive to increasing efficiency than debt, use of trade credit instead of debt, and prohibition of refinancing trade credit will positively affect firm efficiency. However, like debt, trade credit also has negative impact on efficiency. This is because purchase in installments, like debt, is firms' obligation that also forces firms to hold cash as a buffer against defaults.

3.4. The effect of equity financing on efficiency

The strongest positive impact on efficiency is provided by equity financing. According to Nucci et al. (2005) it is due to the fact that market-based financial systems drive to higher levels of real economic activity (Nucci, Pozzolo, and Schivardi, 2005). Positive relationship between equity financing and firm efficiency is also due to the fact that as, in contrast to debt, issuing shares doesn't create risk of default, firms are not required to hold cash as a buffer against debt defaults that positively affects efficiency.

4. CONCLUSION

Significant amount of cash in balance sheet can generate agency problems, encouraging managers to invest in inefficient projects. In order to increase efficiency Jensen argues to use debt since the threat caused by failure to service debt motivates firms to work more efficiently. However the opportunities for firms to refinance debt servicing reduce the stimulating effect of debt on firm efficiency. Thus, paper argues that use of trade credit instead of debt, and prohibition of refinancing trade credit will positively affect firm efficiency. Paper also argues that the strongest positive impact on efficiency is provided by equity financing. This is due to the fact that in contrast to debt and trade credit, issuing shares doesn't create risk of default, and

firms therefore are not required to hold cash as a buffer against debt defaults that positively affects efficiency. Thus, in view of the above, paper argues that 1) cash holding negatively affects firm efficiency, 2) debt and trade credit have both positive and negative impact on efficiency, 3) debt is more conducive to increasing efficiency than cash holding, 4) trade credit is more conducive to increasing efficiency than lending and 5) the strongest positive impact on efficiency is provided by equity financing.

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SUSTAINABLE DEVELOPMENT OF TOURISM IN AZERBAIJAN: CURRENT SITUATION, PROBLEMS AND SOLUTION

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ABSTRACT

In the non-oil sector of Azerbaijan, tourism is seen as one of the most promising areas. Azerbaijan has a strong potential to develop tourism with rich natural and historical-cultural recreation resources. After gaining independence in 1991, a new tourism strategy was developed in the country and an independent tourism policy was started. Taking into account the importance of tourism for the country, tourism development priorities and targets have been identified in regional development programs as well as on tourism related documents. The "Strategic Road Map", approved in December 2016, can be considered as a new stage in the development of the country's tourism. In recent years, the positive results of the measures taken in the field of tourism infrastructure development, promotion and personnel training in Azerbaijan are observed. Growth in the number of foreign tourists visiting the country and revival in domestic tourism are indicators of progress in tourism. In Azerbaijan tourism development is essential for the protection of nature, such as the conservation, rational use of natural and historical-cultural recreation resources, solving existing problems in tourism and ecotourism in order to sustain sustainable development of tourism.

Keywords*: sustainable tourism, tourist infrastructure, strategic roadmap, ecotourism*

1. INTRODUCTION

Tourism is a powerful factor of the economy, an influential social institution, as well as a public welfare and culture of the society. It promotes the growth of people's living standards and their spiritual enrichment. Increasing the contribution of tourism to the country's economy, the rational use of natural resources and the high competitiveness of tourism destinations, led to its sustainable development. Socio-economic development of Azerbaijan has opened new opportunities for sustainable development in tourism. In a country with a rich tourism potential, a range of measures taken in acceleration of tourism reforms, strengthening of infrastructure and protection of environment can be seen as important steps towards the sustainable development of tourism. The multidimensional research and development perspectives of this field are crucial in ensuring sustainable development of tourism. In this article, the current situation and problems of sustainable tourism in Azerbaijan have been analyzed and solutions have been sought. The article outlines the differencies in sustainable tourism among developed countries and developing countries, including Azerbaijan, and states the need for a sustainable tourism model for developing countries. Taking into account the relevance of the topic, sustainable tourism and its significance, tourism in Azerbaijan, the reforms in the independence period have been analyzed, the potential of regions in terms of tourism sustainability has been evaluated and comparative analysis and generalization methods have been used in the article along with statistical and regional analysis methods.

2. BRIEF OVERVIEW OF HISTORY OF TOURISM

Looking at the history of travels in Azerbaijan, it is still possible to see that trade in the Middle Ages was mainly for trade, religious visits and treatment. Caravanserais, built between major and middle cities as well as trade points, were the main overnight destinations. In the Middle Ages, those who visited Ateshgah temple in Absheron dominated India and other eastern countries.

Visits from the country are mainly focused on the cities of Mecca, Mashad and Karbala. Religious sites and therapeutic centers prevail among the regions visited throughout the country. In the second half of the 19th century, Azerbaijan became one of the world's oil centers, increasing the flow of Western businessmen and companies to the country, and played an important role in the construction of European-style hotels. At that time, sharp increase in tourism travel made by Azerbaijani rich people to Europe and Russia can be seen as well. Rapid development of the oil industry has changed the cultural landscape of the capital Baku. Today, many magnificent buildings attracted by foreign tourists have also been built by oil millionaires at that time. After the establishment of the Bolshevik government in Azerbaijan in 1920, the nature of development of tourism changed and tourism was developed within the framework of the Soviet system. In the Soviet era, especially after the Second World War, the construction of social enterprises expanded, ten tourist bases were opened in Azerbaijan, and touristic routes were organized to different regions. The vast majority of tourists coming to Azerbaijan in that period were from other Soviet republics, and in the 1980s the number of tourists coming beyond the Soviet Union was around 50,000. The majority of foreign tourists were citizens of the socialist countries, and the main place of visit was Baku. In the Soviet era, Azerbaijan's tourism potential was not properly evaluated, and environmental protection measures were insufficient. At that time, opportunities for exploring the impact of tourism on the environment were limited and no serious investigations were carried out on this issue. Despite promoting the development of mass tourism in the Soviet Union, tourism infrastructure, personnel training and service levels have dropped far short of international standards. Decisions of the USSR and the Council of Ministers on the development of tourism on the Caspian coast of Azerbaijan were accepted, but the collapse of the Soviet Union did not allow this to happen.

3. AZERBAIJAN TOURISM IN INDEPENDENCE PERIOD

The main objective of the first 10 years of independence of Azerbaijan was to ensure economic stability, but there was no progress in the development of services, including tourism, but some of the people who left their homes after the occupation of Armenia were placed in tourist camps and sanatoriums. Thus, in the first years of independence, as in other sectors of the economy, tourism also experienced a decline, while economic stability in the late 1990s also had a positive effect on tourism. Adoption of the Tourism Act on June 4, 1999, stimulated the development of infrastructure and the opening of tourism companies, and accelerated the process of contributing region's recreational resources to tourism. Significant changes in the field of tourism in Azerbaijan happened in the beginning of the 21st century. By the decree of President of the Republic of Azerbaijan dated August 27, 2002, No. 1029, the "State Program on the Development of Tourism in the Republic of Azerbaijan for 2002-2005" was approved, and the conditions for the efficient use of tourism potential have been created (Soltanova, 2015, p.162). State Program on Tourism Development in the Republic of Azerbaijan for 2010-2014 (April 6, 2010), State Program on the Development of Resorts in the Republic of Azerbaijan for 2009-2018 (February 6, 2009) and "Tourism Strategic Roadmap for Industrial Development "(December 6, 2016) aims to transform tourism into one of the leading sectors of the country's economy. These documents are of great importance in terms of ensuring the sustainable development of the tourism sector. Implementing a series of activities related to tourism education during the years of independence has contributed to the training of qualified personnel. In 2006, the Azerbaijan Tourism Institute was established and in 2014 it was renamed the Azerbaijan University of Tourism and Management. In this high school, personnel covering key areas of tourism are being trained. Additionally, tourism faculties have been opened at several universities of Azerbaijan, and staff training has started in the regions. It should be noted that, despite certain improvements in staff training in the field of tourism, there are a number of problems in this field.

Implementing reforms in the tourism sector has shown its positive results. Strengthening the stability and tourism infrastructure in the country made it possible to hold the 2012 Eurovision Song Contest, the 1st European Sports Games in 2015, and the Islamic Solidarity Games in 2017.

4. CURRENT SITUATION OF TOURISM IN AZERBAIJAN

Over the past 25 years, significant work has been done in the field of tourism development in Azerbaijan, the legislative base of tourism has been strengthened, promotion activities have been expanded, and state programs on the development of this sphere have been prepared. Thanks to these measures, significant increases have been registered in the number of foreign tourists, as well as hotels and travel agencies. The dynamics of foreign tourists can be found in the table below.

Table 1: Breakdown of foreigners and stateless persons arriving to Azerbaijan (The State Statistical Committee of the Republic of Azerbaijan, Statistical Yearbook (publication) 2018, p 25.)

	2013	2014	2015	2016	2017
Number of foreigners and stateless persons arrived to Azerbaijan	2 508,9	2297,8	2 006,2	2 248,8	2 696,7
including tourism purpose of which:	2 129,5	2159,7	1 921,9	2 044,7	2 454,0
leisure, recreation tourism	705,2	709,9	668,8	697,1	839,3
business tourism	648,9	670,5	632,3	691,7	834,4
treatment tourism	46,2	46,3	36,5	41,5	49,1
religious tourism	13,7	13,7	11,5	12,6	14,7
visiting friends and relatives	673,7	677,1	542,0	562,0	674,9
other tourism purpose	41,8	42,2	30,8	39,8	41,6
other purpose	379,4	138,1	84,3	204,1	242,7

Looking at the tourism market of Azerbaijan, we will witness the increasing number of tourists from different countries every year. If in 2005, 692,700 foreign tourists visited Azerbaijan, then in 2009 this figure was equal to 1.0 mln. In 2010, it reached 1.9 million people(Soltanova, 361). Although the number of tourists coming to the country in 2015 has dropped slightly in comparison with 2014, in 2017 it was about 2.5 million. In recent years, it is possible to observe that tourists come mostly on recreational or business purposes, or just to see their relatives. In recent years, there has been some increase in the number of visitors for both treatment and religious purposes. Once capacity of hotels and similar establishments changes by economic regions. In 2017, capacity of hotels throughout the country was 41611 bed places, 15781 bed places (38%) were in Absheron economic region (including Baku). The capapcity of Guba-Khachaz on this indicator was 10162 (24.2%), Shaki-Zakatalan - 4308 (10.3%). The total capacity of remaining 7 economic regions was 27.5 %(The State Statistical Committee of the Republic of Azerbaijan, 2018, p.62-63.). 40% of hotels are in Absheron and surrounding territories because of the capital city of the country which locates in this territory, as well as its favorable geographical position and historical development. The relative elevation of the number of places in Guba-Khachmaz and Sheki-Zakatala regions is due to the richness of natural recreation resources and the development of transport infrastructure. Economic regions with an absolute majority of hotels are the most popular tourist destinations in the country. 40.4% of foreign tourists coming to Azerbaijan used automobile, 42.7% airlines, 11.4% of railways, 0.7% by sea and 4.8% by other transport routes. (The State Statistical Committee of the Republic of Azerbaijan, 24). As it is seen from the statistics, only a small number of tourists coming to the country have used sea and railways. This is due to the lack of speed and low comfort levels of off-road vehicles. Inefficient use of cruise tourism potential is one of the weak points of tourism in Azerbaijan.

The low level of comfort in the majority of trains, the lack of infrastructure and the low level of service lead to less use of the railways by tourists. Launching of the Baku-Tbilisi-Kars railway in 2017 has increased the importance of railways in terms of tourism. At the initial stage, one million passengers will be transported by this line. This figure is expected to rise to 3 million in recent years. For the passenger trains operating on the Baku-Tbilisi-Kars route, the Azerbaijani side has ordered 30 types of wagons to the Swiss company Stadler. Wagons are manufactured in four categories: "standard", "comfort", "business" and "restaurant". Azerbaijan Railways CJSC plans to organize passenger transportation by 2019 in Baku-Tbilisi-Kars route. For this purpose, new wagon types produced by Swiss STADLER Rail Group will be brought to Azerbaijan in the first quarter of next year. At present, German Donauvorth and Treuchtlingen railway stations are tested for all parameters of passenger carriages, which will operate on the Baku-Tbilisi-Kars railway route (Azerbaijan Railways Department, 2018, https: // ady. az / az / news / read / 990/43).

5. SUSTAINABLE TOURISM AND ITS IMPORTANCE

Sustainable development term started to gain importance and be discussed thanks to World Commission on Environment and Development (WCED) published in 1987 and called Brundtland Report shortly. According to WCED sustainable development is described as “a development that meets the needs of the present without compromising the ability of future generations to meet their own need” (WSED, 1987, p.42). Expressed simply, sustainable tourism can be defined as:"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (WTO, 2018,http://sdt.unwto.org/content/about-us-5). Factors such as natural and cultural-historical recreation resources, tourism infrastructure, ecological legislation, geographical location of destinations, availability of qualified personnel and public awareness of environmental awareness play a crucial role in the development of sustainable tourism. The effectiveness of sustainable tourism depends on the level of development of countries. Developed European countries, as well as the United States, Canada, Japan, have developed infrastructure and are pursuing an environmental protection policy. These countries, which have rich tourism traditions, prefer the use of "environment-friendly" technologies. In these countries, the importance of the Environmental Impact Assessment (EIA) reports and the implementation of a strong control system over the Carrying Capacity are of great importance in optimizing the economic impact of economic activities.Therefore, developed countries have achieved success in the development of sustainable tourism. The level of development of sustainable tourism in developing countries is even lower. Many of these countries are trying to get as many tourists as possible and to maximize their tourism's economy. In developing countries, trends in the development of mass tourism are hampering the transition to sustainable tourism. While many countries have different economic and political systems and different development levels, most countries see sustainable tourism as one of the priority areas. It is better understood that sustainability of tourism is important for its stable development. Due to development of sustainable tourism, it is possible to preserve both natural and historical-cultural recreation resources, improve their quality, and preserve them for future generations. On the other hand, improving the welfare of the peoples, raising the satisfaction of visitors, enlightenment of tourists and indigenous people on the environment, preserving the aesthetic appearance of natural and cultural landscapes are among the main goals of sustainable tourism. Targeted development and poverty reduction measures make sustainable tourism more attractive.

6. CURRENT SITUATION OF SUSTAINABLE TOURISM IN AZERBAIJAN

Sustainable tourism development in Azerbaijan is characteristic of developing countries. A number of reforms have been performed in relation to the development of tourism, a certain infrastructure has been created, tourism legislation has been improved, and a network of hotels that can accommodate 4-5 million tourists a year in a country with a population of 10 million has been established. The necessity of sustainable tourism development has been highlighted in tourism travel programs and the Strategic Road Map, and sustainable development of tourism has been included in the priority targets. At the same time, it is encouraged to optimize the impact of tourism on the environment, to develop ecotourism, pasture tourism and agrotourism. In recent years, enhancing environmental protection, expanding the range of protected areas, and applying modern technologies for environmental control are crucial for the sustainable development of tourism. The application of the Asan Visa system accelerated the flow of foreign tourists. In recent years, tourism destinations network has been expanded in the country, enhancing environmental protection in tourism areas, opening new jobs in the region, increasing income of local residents from tourism, and organizing gourmet tours to the regions have boosted hopes for sustainable tourism development. The necessity of awareness-raising activities in the field of sustainable tourism has become clear and the first steps have been taken in this area. The announcement of tourism as one of the priority areas among non-oil sectors and expanding the scale of reforms in the tourism sector is of great importance in terms of sustainable tourism development. The Tourism Roadmap on the Strategic Roadmap on the Development of Tourism Industry has highlighted the importance of sustainable tourism development: "The tourism sector is a continuation of environmental sustainability, cultural heritage, and protection and development efforts "(https://president.az/articles/22134, 2016). Establishment of the State Tourism Agency of the Republic of Azerbaijan in 2018 can be considered as an important step in the development of sustainable tourism in the country.

7. PROBLEMS OF SUSTAINABLE TOURISM IN AZERBAIJAN

Despite some progress in the field of tourism in Azerbaijan, there are a number of problems that hinder the sustainable development of tourism. These problems that cover most areas of tourism can be summarized as follows:

- Tourism infrastructure is poor and it is felt especially at overnight stays and transport.
- Hotels have been distributed unevenly across the country and one-third of them are gathered in the Absheron Peninsula, where the capital Baku is located.
- Low quality of services in hotels, motels and camping stays.
- There is a shortage of qualified personnel in the field of tourism, and 10% of the employees in the field of tourism are qualified personnel.
- Environmental protection measures related to tourism destinations are insufficient.
- The Caspian Sea and coastal zones, which are considered to be an important tourism destination, have been polluted with oil waste. The lands polluted in Absheron peninsula more than 10,000 hectares.
- There are gaps in the field of tourism legislation.
- There is no clear statistical information on domestic tourism activities.
- The number of scientific researchers in the field of sustainable tourism is limited and limited.
- There are a number of shortcomings in the sphere of tourism education. There are fewer quality textbooks available, and researchers and students have limited experience.
- Enlightenment measures in the field of tourism and ecological consciousness are insufficient.

- The norms relating to carrying capacity are not complied with and do not comply with Environmental Impact Assessment (EIA).
- Investing in tourism is insufficient, and bureaucratic maneuvers make it difficult.
- Tourism promotion and advertising are not enough.

In recent years, tourism development has created a basis for sustainable tourism development in the country, but the country is still at the forefront of sustainable tourism.

8. SUGGESTIONS FOR SOLUTION OF SUSTAINABLE TOURISM PROBLEMS

In our opinion, implementation of the following measures can have a positive impact on sustainable tourism development in Azerbaijan:

- Preparation and implementation of a special vaccine program for sustainable tourism.
- To develop tourism infrastructure in the regions using the experience of developed countries.
- Improving the quality of service and increasing the range of tourism enterprises.
- Taking into account the carrying capacity of the regions in the organization of tourism routes.
- Development of tourism education, preparation of high quality textbooks, taking measures to promote environmental awareness of secondary schools.
- Ensuring internships for students and researchers of local tourism institutes at foreign universities and tourism organizations.
- Improving ecotourism and tourism legislation.
- Strengthening environmental protection measures and making the use of treatment facilities in enterprises.
- Expansion of scientific research in the field of tourism, organization of international and national congresses on sustainable tourism.
- Expansion of participation in international tourism exhibitions.
- Expansion of advertising on country tourism.
- Implementation of modern technologies for regular monitoring of ecological situation in tourism destinations.
- Application of modern methods of domestic tourism statistics preparation in the country.
- Detailed study of the impact of tourism activities on the development of regions.
- Development of the gifted goods sector.

Implementation of the above-mentioned measures can accelerate the development of sustainable tourism and increase the contribution of tourism to the country's economy.

9. EVALUATION OF SUSTAINABLE TOURISM POTENTIAL OF AZERBAIJAN

The potential of sustainable tourism in Azerbaijan is diverse according to regions. One of the main goals in our article is to evaluate the sustainable tourism potential of the regions. During the evaluation of the sustainable tourism potential of each region, natural and historic-cultural recreation resources, tourism and transport infrastructure, environmental degradation rates have been used. The natural and economic resources generating the tourism potential of each region are assessed by a 10-point system. The points given to the indicators were summed up and divided by the number of indicators and average number was calculated.

Table following on the next page

Table 2: The potential of sustainable tourism of Azerbaijan in regions (Bayramli, 2018)

Economic regions	Indicators						
	Climate	Hydrography	Forest resources	Transportation	Historical-cultural recreation resources	Ecological purity degree	Average indicator
Absheron (including Baku)	7	3	3	10	10	5	6.3
Guba-Khachmaz	7	7	8	8	6	8	7.3
Sheki – Zagatala	8	8	8	7	7	8	7.6
Ganja-Gazakh	7	8	6	7	7	7	7.0
Lankaran	8	8	8	7	6	8	7.5
Aran	5	6	3	6	6	6	5.3
Upper Garabag	9	6	6	8	8	6	7.1
Kalbadjar-Lachin	7	7	5	6	7	5	6.1
Daghlig Shirvan	7	7	8	6	7	7	7.0
Nakhchivan	7	6	6	6	8	7	6.6

It is possible to classify the regions in terms of sustainable tourism potential. The regions with average point over 7 (Guba-Khachmaz, Shaki-Zakatala, Ganja-Gazakh, Upper Garabagh, Daghlig-Shirvan) are high, 6-7 points (Absheron , Kalbajar-Lachin and Nakhchivan) regions - moderate, and less than 6 points can be referred to regions with a weak tourism potential. Depending on the development of sustainable tourism in Azerbaijan, it is possible to change places in the upcoming classification system in the future.

10. SUMMARY

Azerbaijan, with rich natural and historical-cultural resources, has broad opportunities for the development of sustainable tourism. The reforms in the tourism sector during the years of independence, state tourism programs and the preparation and implementation of the Strategic Road Map, the development of transport, hotel and other infrastructure, and environmental protection have created a basis for sustainable tourism development in the country. New tourist destinations have been created in the direction of development of tourism and the flow of foreign tourists to the country has increased. As a result of sustainable tourism potential assessment in Azerbaijan, Guba-Khachmaz, Sheki-Zakatala, Ganja-Gazakh, Upper Garabagh, Daghlig-Shirvan regions are more promising in terms of sustainable tourism is seen. It should be noted that along with the development of sustainable tourism in the country, there are a number of problems. In developing countries, including Azerbaijan, strong tourism infrastructure should be established, environmental protection measures should be strengthened, staff training should be improved in the field of tourism, Environmental Impact Assessment (EIA) reports need to be made compulsory. Sustainable tourism in Azerbaijan is characteristic of developing countries and a special model of sustainable tourism different from developed countries should be applied to these countries. The occupation of 20% of Azerbaijani lands by Armenia, the presence of densely populated tourism resources in the occupied territories, destruction of natural landscape and economic and social infrastructure in occupied territories have made Azerbaijan unable to utilize tourism potential.

After withdrawal of Armenia from occupied territories, it will be possible to use the rich tourism potential of Nagorno-Karabakh and its surrounding regions. Thanks to the continuation of tourism reforms, the planned tourism policy and the public-private sector partnership in the field of tourism, Azerbaijan can become a country where sustainable tourism develops.

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MECHANISMS OF NATURAL RESOURCE REVENUES AND ECOLOGICAL BALANCE

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ABSTRACT

Economists and politicians in many countries predict the collapse of the economy's commodity models. This is largely due to the future depletion of certain natural resources. Partly knowing this risk is still a lot of doubt. But the main threat to the operation of the "raw material economy" is the formation of the so-called economy of information. The resource economy is aimed at studying and evaluating economic resources, especially resources - public goods, when determining their optimal placement. The methodological basis of resource economics is a system of methods and tools for non-valuables valuation and this allows for determining costs or benefits related to resources that are free of charge. In many countries, active research is being carried out to improve the use of alternative fuels and resources. Therefore, knowledge becomes a kind of multiplier that increases the value of other economic resources. Countries with rich mineral resources need to start shaping elements of knowledge economy by increasing the scientific and technical potential, increasing the scientific and technical potential by obtaining a supercontrol by reducing the dependence on natural resources in the long run, using dependency on external systems.

Keywords: *ecological balance, enviromental economics, ecological economics, enviromental taxes, ecological policy*

1. INTRODUCTION

As we know, the 21st century has been declared a century of ecology, sustainable development, health in the world. It is for this reason that this global-scale problem has always been and remains the focus of world scholars at all stages of society's history. Research shows that the dispute with the scientist working in these areas is still ongoing. In general, recent studies on the regulation of the world, local and regional environmental safety problems in the world are insufficient. In particular, the studies on the establishment of a regulatory legal framework for environmental safety should be further expanded. In the modern era, the causes of environmental threats are military, economic and social, travel and terrorism. If the threat of military threat - the global nuclear war, the proliferation of weapons of mass destruction, international armies, major wars and local conflicts, economic and social hazards. Connections between environmental protection and international trade have been recognized for many decades. In recent years the political rise of environmentalism has focused acute attention on possible conflicts between environment and trade values and rules. National environmental law has become more comprehensive and more central in most polities, and present or proposed measures of environmental protection often touch matters addressed by international trade rules. (Environmental Regulation and Economic Growth, By A. E. Boyle,1994, pp 189-190).

2. ECONOMIC DEVELOPMENT AND DIRECTIONS TO SOLVE THE PROBLEMS OF AND ENVIRONMENTAL PROTECTION

Implementation of the principles of protection of natural resources, science-based development at the national, international and regional levels by strengthening the coordination of state activities in the field of environmental protection in order to achieve ecologically sustainable socio-economic development, ensuring the sustainability of the country's economic and human resources should be implemented.

'The materials balance principle' is the term that economists tend to use to refer to the law of conservation of mass, which states that matter can neither be created nor destroyed. (Perman et al, 2003, pp-22). It is essential to eliminate and limit the serious environmental problems that arise during economic activity to ensure sustainable development from ecologically sustainable and can be achieved by fulfilling the following objectives in interconnectedness:

- Using appropriate methods of managing economic and human potential to improve the quality of the environment;
- the creation and use of economic models and technologies that stimulate the well-being of present and future generations;
- implementation of guarantees between representatives of the same and different generations on the principles of fairness;
- Protecting systems, ecosystems and biodiversity that can provide human life.
- The implementation of these tasks is based on the following principles:
- Implementation of the decision-making principle, taking into account short-term and long-term economic, environmental and social outcomes and probable consequences;
- taking into account alternatives in decision-making processes;
- Preventing the implementation of economic, social and environmental projects that may cause irreversible damage to any component of the environment;
- Ensuring strong and diversified economic development, allowing allocation of funds for environmental protection and sustainable development;
- Expansion of involvement of representatives of public and non-governmental organizations in decision-making process in sustainable development and environmental protection.

Natural resource availability and environmental factors are not seen as providing significant limits to economic growth. Indeed, the most optimistic thinkers see economic growth as a positive means to reduce scarcity permanently through the accumulation of capital and knowledge and other effects. Some growth optimists see global advantages through greater economies of scale and argue that economic growth results in a faster rate of technological progress (Tisdell, 1990, pp 2-5). In Europe, the United States, Japan and China, active and highly successful scientific studies are being carried out to create the most powerful thermoelectric power plants capable of meeting the demand for a long-term country and several countries. Solar power stations and their placement in space are the following. Two models can be combined organically: the information in the resource model can be regarded as an economic resource, and resources themselves can be the main object of studying the knowledge economy. Unlike many resources, information and knowledge can be used indefinitely and are actually used more and more. In this context, the information acquires the characteristics of capital as an increasing value. Resources are available in quantitative and qualitative levels. This is a quantitative character that reflects the volume and speed of resource utilization and the quality of the potential that they can afford. Quantitative characteristics of resources and the level of utilization of them reflect the efficiency of resource utilization. At the same time, quantitative characteristics of resources can increase or decrease resource potential from a quantitative perspective. For example, while the world oil market price fell to $ 38 per barrel in 2014, the oil price in Azerbaijan in 2014 was $ 60-70 in October 2018. On the other hand, resources are not the same as quality. The quality of the mineral raw material is determined by its composition, ie the rate of the ingredients contained in it. Land quality is determined by their fertility rate. The development of resource potential (resource resources) is related to the complexity, completeness and substitution of resources. Resource complexity is expressed through the acquisition of some of their resources. At the same time, complex utilization of resources reduces the production of natural raw materials. For example, during oil extraction it is obtained in natural gas.

The nature of the resources to complement each other is explained by the fact that sometimes there are some resources in the production process. The production process can not be started as a result of at least one of them. For example, raw materials, fuels, fixed and circulating funds and labor resources complement each other in the production process. The ability to replace resources contributes to achieving the desired result as a result of the use of different resources in different ways. That is, the same resource can be used by replacing other resources to meet different functional requirements in different fields. For example, petroleum gas can be replaced by gas, coal, atomic energy, metal plasma in industry, and labor resources can be replaced by machines and equipment. From the point of view of ecological security, opportunities for replacement of resources within the national economy are constantly examining and expanding towards expansion. At the same time, this feature can be applied both to internal and external resources. Thus, a number of raw materials, fuel and other resources can be imported, which is due to their cheaper receipt. Therefore, taking into consideration the economic growth and the depletion of a number of resources, various countries take this step by increasing their reputation. The functions of the state in the mixed economy include the establishment of legal basis for economic decisions, the stabilization of the economy, the achievement of macroeconomic and structural balance, the development strategy, and the creation of favorable investment, business environment, resource allocation, and economic and environmental security, and solution of social problems, these functions include specific areas, regions, spheres of regulation in the transitional period. The policy objectives should be based on the criteria system that forms the basis of the state, society and economic entities. All of this, in turn, is a constant focus on preventing the initial quantitative and qualitative changes in the environmentally-friendly tangible assets and the need for future generations to utilize the natural environment, leading to a breach of the ecological sustainability of the environment to meet the social and economic needs of the community a consistent monitoring of the use of natural resources efficiently and economically without regulating the environment, ecological sustainability of the environment, and the preservation of biodiversity and the sustainable use of ecological systems expansion.

2.1. Ecological and environmental economics. basic mechanisms of difference

Ecological economics is an interdisciplinary area between economics and ecology. Their goal is to develop models that can analyze economic, social and environmental conditions in the form of a network, embedded and evolving system. Environmental economists mainly study the social and political problems of environmental economics. Her work focuses on identifying conditions for a sustainable socio-economic system and developing a model that describes it. Ecological economics is based on ecosystems and is trying to find a solution to conflicts between the economy and society on this basis. After successfully determining the relationship between the economy and the environment, plans and recommendations for adjustments aimed at creating a socio-economic system in harmony with the biosphere can be developed. Opinions of environmental economists are not same . Among the most prominent scientists in this field: Schumacher E., Boulding K. E., Costanza R., Carten D.

2.2. Comparison of ecological and environmental economics

Figure following on the next page

Ecological Economics	Traditional Environmental and Resource Economics
1. Optimal scale	1. Optimal allocation and externalities
2. Priority to sustainability	2. Priority to efficiency
3. Needs fulfilled and equitable distribution	3. Optimal welfare or Pareto efficiency
4. Sustainable development, globally and North/South	4. Sustainable growth in abstract models
5. Growth pessimism and difficult choices	5. Growth optimism and "win-win" options
6. Unpredictable co-evolution	6. Deterministic optimisation of intertemporal welfare
7. Long-term focus	7. Short to medium term focus
8. Complete, integrative and descriptive	8. Partial, monodisciplinary and analytical
9. Concrete and specific	9. Abstract and general
10. Physical and biological indicators	10. Monetary indicators
11. Systems analysis	11. External costs and economic valuation
12. Multidimensional evaluation	12. Cost-benefit analysis
13. Integrated models with cause-effect relationships	13. Applied general equilibrium models with external costs
14. Bounded individual rationality and uncertainty	14. Maximisation of utility or profit
15. Local communities	15. Global market and isolated individuals
16. Environmental ethics	16. Utilitarianism and functionalism

Figure 1: Comparison of ecological and environmental economics (Ecological Economics: Themes , Approaches , and Differences with Environmental Economics, Jeroen C. J. M. Van den Bergh, 2000)

Environmental economics focuses on value dimensions: namely, utility and welfare in theory, and costs and benefits in practice. Unlike neoclassical economics, ecological economy does not regard a total valuation of changes in ecosystems as the sum of private values. For the latter takes no account, or insufficiently, or insufficient account, of internal environmental system functions, "life-support" functions, future generations, and non-instrumental existence values. EE is inclined to add criteria to the economic values in the context of decision making concerning management of and changes in ecosystems.

3. ENVIRONMENTAL TAXES

Environmental pollution is a global problem of our time, and the efforts of all economically developed countries without exception are aimed at combating it. In world practice, there are two main approaches to the regulation of environmental activities: command and control (administrative) and market. The market approach involves primarily the use of financial instruments to stimulate and deter entrepreneurial activity affecting the field of nature management and ecology. The leading place among such instruments belongs to environmental taxes. An environmental tax cannot guarantee a particular environmental impact polluters behavioural responses may be less, or more, than expected. In cases where the precise achievement of an environmental target is a high priority, this may be an important drawback of environmental taxes, and quantity instruments such as emissions trading may be preferred (Fullerton et.al., 2008 pp. 6-8). Environmental taxes began to apply the Scandinavian countries in the 80s. Until the mid-90s. their role in tax revenue grew slowly. In the EU as a whole, the share of such taxes in the aggregate GDP of the member countries increased from 2.6% in 1980 to 2.9% in 1994. A slight increase was observed in 1995-1996. mainly due to the expansion of the membership of the EU. In the OECD countries, which includes most European countries, the tax shift towards environmental taxes — the Green Tax Reform — began in 1995-1996. In many countries with an effective environmental protection mechanism, environmental taxes play a significant role. The experience of the EU and OECD countries shows that environmental taxes, which constitute a large part of the revenue base of the budgets of these countries, are taxes for environmentally hazardous economic activities. In other words, anything that can cause adverse changes in the environment can be subject to environmental taxation.

Taking this definition as a basis, the European Commission's Tax and Customs Directorate has divided environmental taxes into seven groups by application:

- energy taxes: motor fuel; energy fuel; for electricity.
- transport taxes: taxes on kilometers traveled; annual tax on the owner; excise taxes when buying a new or used car.
- pollution charges (tax on emissions): emissions of pollutants into the atmosphere; emissions to water basins; emissions of carbon dioxide and other harmful substances (chlorofluorocarbons, oxides of sulfur and nitrogen, lead); emissions of substances causing global environmental changes (such as damage to the ozone layer).
- payments for waste disposal (tax on waste). These include payments for the disposal of waste in landfills and their recycling and taxes on a number of special products (packaging, batteries, tires, lubricants, etc.).
- noise impact tax (earmarked charges).
- payments for the use of natural resources (royalty).

	million EUR	% of total environmental taxes	% of GDP	% of total revenues from taxes and social contributions
Total environmental taxes	364 398	100,0	2,4	6,3
Energy taxes	280 354	76,9	1,9	4,8
Transport taxes	71 747	19,7	0,5	1,2
Taxes on pollution and resources	12 297	3,4	0,1	0,2

Figure 2: Total environmental tax revenue by type of tax, EU-28, 2016 Eurostat

In 2016, the total income from environmental taxes in the EU-28 (that is, income from environmental taxes collected by governments in all EU member states) was € 364.4 billion; this figure represents 2.4% of the gross domestic product (GDP) of the EU-28 and 6.3% of all government revenues from taxes and social contributions to the EU.

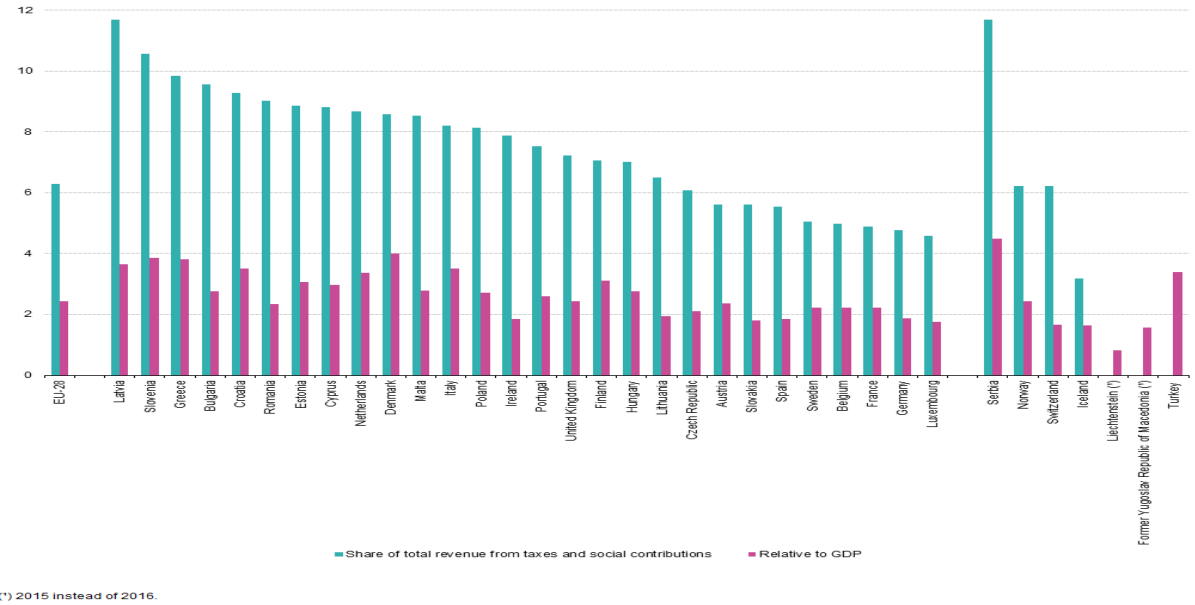


Figure 3: Total environmental tax revenue, 2016 Source: Eurostat

Figure 3 shows the revenues of environmental taxes in 2016 by countries, both in terms of GDP, and in terms of total government revenues from taxes and social contributions. Regarding GDP, the highest level of revenues from environmental taxes was recorded in 2016 in Denmark

(4.0%), followed by Slovenia (3.9%), Greece (3.8%), Latvia (3.7%), Croatia and Italy (both 3.5%). The lowest revenues from environmental taxes in relation to the country's GDP (below 2%) were recorded in six EU member states (Lithuania, Germany, Spain, Ireland, Slovakia and Luxembourg). Serbia stands out for its environmental tax revenue in 2016 at 4.5%, followed by Turkey (3.4%). Of the EFTA countries, Norway in 2016 recorded the highest level of tax revenues relative to GDP (2.4%). For Switzerland and Iceland, revenues from environmental taxes in 2016 amounted to 1.7% and 1.6% of GDP. The share of environmental taxes in total government revenues from taxes and social contributions also varied considerably across EU member states. Latvia had the largest share in the EU (11.7%), slightly ahead of Slovenia (10.6%). Four other EU member states have a share of at least 9%: Greece (9.8%), Bulgaria (9.6%), Croatia (9.3%) and Romania (9.0%). At the opposite end of the scale, the lowest shares of environmental taxes are Luxembourg (4.6%), Germany (4.8%), France (4.9%), Belgium (5.0%) and Sweden (5.1%), followed by Spain (5.5%). %), Slovakia and Austria (both 5.6%). The share of environmental taxes in total government revenues from taxes and social contributions registered by Serbia (11.7%) was at the same level as in Latvia, the country with the largest share in the EU. Environmental tax revenues collected in 2016 in Norway and Switzerland accounted for 6.2% of total government revenues from taxes and social contributions, while for Iceland the equivalent share was relatively low (3.2%).

4. CONSLUSION

An important direction in improving nature conservation and the use of natural resources is the determination of an adequate price or economic assessment of natural resources and natural services. The environment provides three functions:

- the provision of natural resources;
- the assimilation of waste and pollution;
- providing people with natural services, such as recreation, aesthetic pleasure, etc.

These three functions can also be represented as components of one general function of the natural environment - life support functions. Real prices of natural resources can be effective levers in the market mechanism. With irrational environmental management at enterprises, their accounting will lead to a deterioration in production indicators, which will affect financial results. Accounting prices of resource estimates will allow more reasonably determine the cost-effectiveness of development alternatives. The use of estimates can significantly affect the choice of capital construction options. For example, taking into account the fact that land resources planned for withdrawal can be used in agriculture and produce, it may make expedient to change investment projects in the direction of higher prices for the construction object itself due to its maximum concentration, additional costs for attracting uncomfortable land. Inadequate assessment of natural resources leads to underestimation of the effects of greening the economy, the transition to sustainable resource-saving development. The annual losses of oil, timber, various minerals of degraded land, etc. can be estimated at many billions of dollars. One of the important reasons for the loss of natural resources and the increase in the environmental intensity of the economy was the deterioration of equipment exceeding all acceptable standards. In the conditions of continuing operation of such equipment, the probability of environmental disasters sharply increases. Now the UN, developed countries are trying to "green" measurement of the main economic indicators, taking into account the environmental factor. In particular. The United Nations Statistics Division proposes a system of integrated environmental and economic accounts aimed at taking environmental factors into account in national statisticians. Also of interest are the following indicators: the human development index proposed by the UN and the sustainable economic well-being index proposed by G. Dali and J. Cobb.

The first one is an aggregate indicator calculated on the basis of the characteristics of life expectancy, level of knowledge and level of mastering the resources necessary for normal life. The second is a fairly comprehensive indicator that takes into account the costs of an environmental nature associated with inefficient management. However, the exit of the economy to the path of sustainable development is impossible only through market mechanisms. The market model, as already shown above, cannot lead to the path of sustainable ecological and economic development of the economy. The market failures are obvious in this case. An important quality of the market is that it makes it possible to ensure the best use of various resources due to price signals of their scarcity. But the real social costs and benefits of the use of environmental resources through the prices of resources emerging on "environmental" markets, it is impossible to calculate. As a result, there is an inadequate assessment of scarce resources, supply and demand quantities, which gives underestimated incentives for the efficient use of natural resources and environmental protection. The reasons for market failures in the environmental field are such as

- externalities (external effects);
- the absence (undervaluation) of prices for natural goods and the absence of such markets;
- public goods;
- transaction costs;
- property rights;
- uncertainty and short-sightedness.

As for externalities, they cannot be adequately taken into account primarily in terms of the social costs of society from environmental degradation. Therefore, the understated prices of natural goods are obvious. Transaction costs can also be quite large in relation to the expected benefits (costs associated with obtaining information, conducting multilateral negotiations, ensuring compliance with negotiations, etc.) And, even if an agreement is reached, the degradation of nature still continues. The market system is not interested in producing public goods, since their features are opposed to the characteristics of individual consumer goods. These large units are indivisible and the principles of exclusion do not apply to them. The benefits of public goods come to society as a result of the production of such goods. A significant problem for the market is uncertainty and short-sightedness. By its nature, the market is focused on getting quick results, profits and does not take into account long-term damages and benefits. Market failures in the economic sphere show that purely market regulators in the use of nature are ineffective. At the same time, the inefficiency of state regulators in solving environmental problems is obvious. Among the examples of ineffective public policy are the following:

- subsidies (for pesticides, energy, irrigation water, etc.);
- tax system (stimulation of environmental activities in agriculture, energy, etc.);
- price control;
- environmentally destabilizing foreign trade policy;
- inconsistent reform of property rights;
- deficiencies in environmental management and monitoring, and so on.

In society, there is a dispute about subsidies, in particular, for electricity. They need to be resorted to because of the distortion of prices for this product. The removal of subsidies will force everyone to save energy and reduce local air pollution, reduce carbon emissions in some countries by 20%, and globally by 7%. Despite the shortcomings, the role of the state in environmental protection is great now and will grow in the future. The experience of developed countries over the past two or three decades shows that the role of the state is important in

setting different standards and standards in the field of environmental protection. He plays a leading role in the implementation of alternative solutions to environmental problems, economic restructuring and others. Today, in many countries in the field of environmental protection, a kind of symbiosis of administrative and market mechanisms has developed. And the search for optimal environmental and economic regulators continues. There is no ready and well-established model of the economic mechanism of interaction between society and nature in the world, but there is an obvious need to balance state and market approaches depending on the ecological situation, characteristics of the economy, etc. As already noted, the greening of the economy for our country, the transition to a sustainable type of economic development is complicated by a structural crisis. Institutional inefficiency (protection of property rights, privatization, incorporation, etc.) only aggravates the situation. This does not mean that it is necessary to slow down the progress towards new forms of management. However, everything new needs to be weighed on an ecological scale; any decisions in the economy, including institutional ones, must begin with the creation of a system of strict environmental protection or an assessment of how a particular decision will affect nature. If today enterprises (in the face of fierce competition, bankruptcies and a constant lack of financial resources) tend to sacrifice primarily nature, then they can be understood. Under these conditions, the role of the state in ensuring the environmental safety of the country increases (preserving the health of the nation and ensuring sustainable socio-economic development with the adequacy of the environmental conditions).

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THE CURRENT STATE OF THE AZERBAIJAN REPUBLIC BUDGET POLICY AND THE PROSPECT OF ITS IMPROVEMENT

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ABSTRACT
The state budget policy is determined by the Constitution of the Republic of Azerbaijan, the Law of the Republic of Azerbaijan on the budget system, as well as other legislative acts defining the functions and responsibilities of various authorities in the budget process. The basis of the budget policy is the strategic directions of economy and social policy of the state; it is they who determine the size and proportions of financial resources centralized by the state, the prospects for using budgetary funds in the interests of solving major savings, and social tasks. In the market conditions of fiscal policy - the main lever for determining the main directions of economy, the impact of the state on social production.
Keywords: *budget policy, state budget, Strategic Roadmap, taxes*

1. INTRODUCTION

Budget policy is the impact on aggregate demand through a system of government orders, taxation and transfer payments:[1] The state budget, being the main means of mobilizing and spending state resources, gives political power a real opportunity to influence the economy, finance its structural adjustment, stimulate the development of priority sectors of the economy, and provide social support to the least protected segments of the population. The basis of the budget policy is the strategic directions of economy and social policy of the state; it is they who determine the size and proportions of financial resources centralized by the state, the prospects for using budgetary funds in the interests of solving major savings, and social tasks. In the market conditions of fiscal policy - the main lever for determining the main directions of economy, the impact of the state on social production.

2. FORMATION OF STATE BUDGET

Budget revenues are generated from taxes (TA), and expenses are purchases of goods and services and transfer payments (G + TR) in this case, the budget surplus (BS) will be equal to:

$$\mathbf{BS = TA – G – TR}$$

Positive budget surplus is called a budget surplus, a negative one is called a budget deficit. If we take into account that TA = tY, where t is the tax rate, Y is the income level, then we get the following equation BS = tY - G - TR. This shows that the budget surplus depends on the tax rate, the volume of government purchases, the size of transfers and all the factors that change the level of income. Therefore, during periods of economic recession, when there is a decrease in tax revenues and, as a rule, an increase in transfer payments, the problems of the budget deficit are exacerbated. Sources of financing the budget deficit are:

- internal sources of the following types: loans received from credit institutions in foreign currency; government loans made by issuing securities on behalf of the Republic of Azerbaijan; budget loans received from the state budget;
- external sources of the following types: government loans in foreign currency through the issuance of securities on behalf of the Republic of Azerbaijan; loans from foreign

governments, banks and firms, international financial organizations provided in foreign currency and financial resources from the privatization of state property.

Theoretically, government spending and revenues should be equal. But since they represent different aspects of the state's activities, depend on different factors, solve different tasks, affect income and employment differently, characterize different relationships qualitatively, in practice this causes some imbalance. Therefore, in reality, the revenues and expenditures of the state may not be equal. Moreover, the difference between the sum of government revenues and government spending is used as a tool of fiscal policy, i.e. can stabilize or stimulate the economy of the country. There is no close interdependence between expenditures and state revenues, since they are not connected with the purchase and sale of those services that are performed by the state. For firms, the interdependence of income and expenses is quite obvious. It acquires resources, produces any goods from them, sells them and, with the money received, acquires material resources in order to start the cycle anew. At the same time, both the costs and the income of the company increase the GDP and employment. For the activities of the state, this dependence is not typical. The public goods that the state produces are not mediated by money. Taxes directly reduce revenues and output, raise prices. And only government spending increases output, employment, and income. The budget is usually considered as a law, because minor fluctuations in government spending can lead to destabilization of the economy as a whole through a government spending multiplier, breaking certainty in the economic activities of economic agents. The destabilization of the economy, the violation of the certainty of its development deprives both the state and economic agents of the future. In such conditions, not long-term economic development tasks come to the fore, but short-term (in the sense of survival), so we can say that the practice of restructuring the budget in the middle of the next financial year means the absence of the state's strategic and long-term goals in economic development. This kind of state policy, based on the absence of strategic goals, affects the entire society, since under conditions of uncertainty and instability, a periodic depreciation of financial and physical assets (property) of economic agents, they cannot have long-term goals. Short-term tasks, such as income and current consumption, including calculations, payments, look strategic. State expenses, depending on their economic content, are divided into current expenses and capital expenditures. Capital expenditures of the state is a part of the costs that provides innovation and investment activities, expenses in the exercise of which property is created or increased and other expenses. Current state expenditures are a part of expenditures that ensures the current functioning of government bodies, the provision of state support to other budgets and individual sectors of the economy in the form of subsidies, subsidies and subventions for current funding and other expenditures. Government spending and the equilibrium net national product (NNP): there are two approaches to their consideration - from the standpoint of analyzing the flow of total expenditure and national output and from the standpoint of analyzing the flow of leakage and injection. The first approach is as follows: total expenses are equal C + I + Xn + G, i.e. as the G component increases in them, their graph shifts upwards, which leads to an increase in the NNP. The second approach assumes that government spending complements private investment and net export spending (I + Xn + G), and, increasing, cause an increase in the equilibrium NNP. Or else, as a result of the diversion of savings and imports, the consumption of the domestic product falls below the level of domestic income after taxes, creating a gap in spending. This gap can be covered by injections of investments, exports or government procurement. If there are no taxes, TA = 0, the equilibrium NNP is determined at the intersection of the graphs (S + M) = (I + Xn + G), where S is the household savings, M is import.

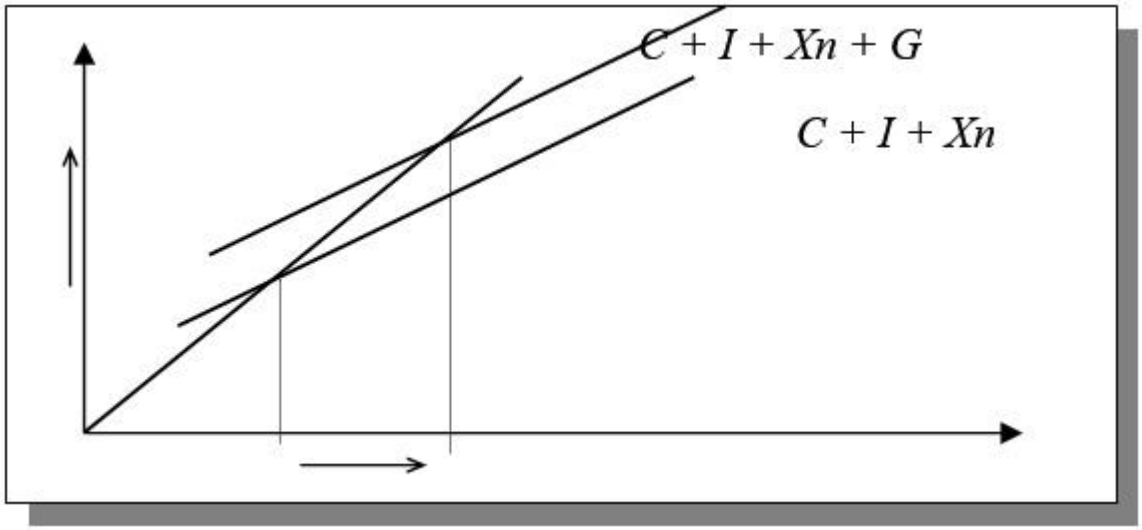


Figure 1: Government spending and equilibrium NNP: from the standpoint of analyzing aggregate expenditure flows and national output.

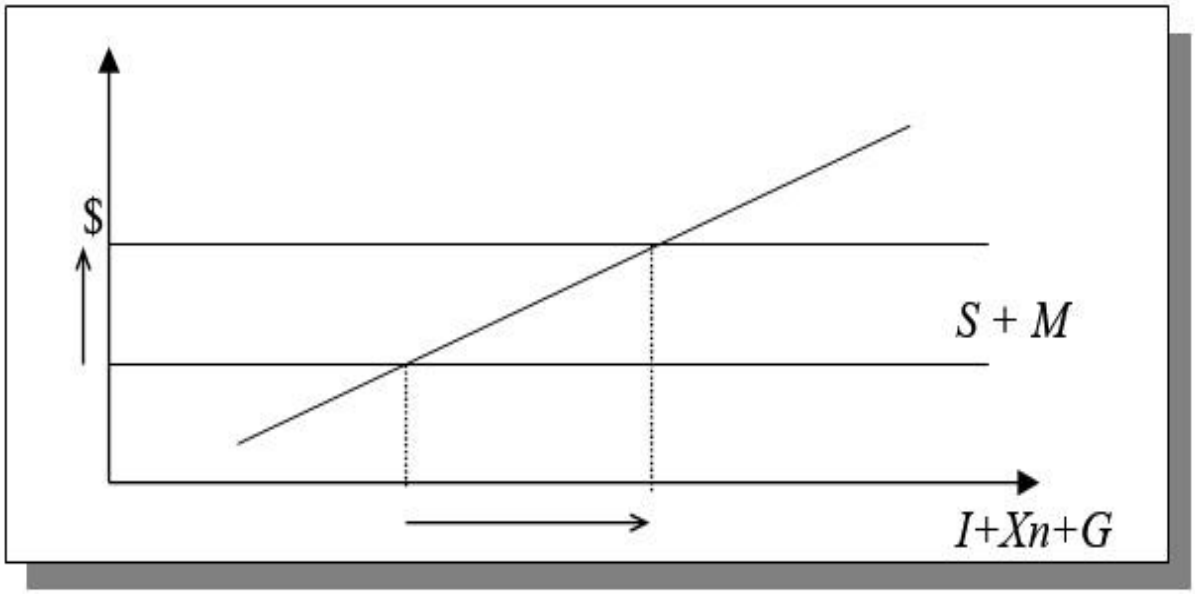


Figure 2: Government spending and equilibrium NNP: in terms of leakage flow analysis.

Both approaches draw identical conclusions: the increase in the public expenditures leads to growth of size of equilibrium ChNP. In turn, reduction of size of the public expenditures will cause shift down of the schedule of cumulative expenses or the schedule (I + Xn + G) of that reduction of equilibrium ChNP will be result. Income of the state is formed at the expense of tax and non-tax types of income, and also due to gratuitous transfers. Besides, balance for the end of previous year is enlisted in the income of the state of the current year. The state and local taxes and fees, and also penalty fee and penalties provided by the tax law belong to the tax income. Treat the non-tax income: the income from use of the property which is in the state or municipal ownership; the income from sale or other paid alienation of the property which is in the state or municipal ownership; the income from the paid services rendered by appropriate authorities of the government, local governments, and also the budgetary institutions; the means received as a result of application of civil, administrative and criminal liability, including penalties, confiscations, compensations, and also the means received in indemnification: [1]
As for the tax income, their size depends on two factors: tax rate and size ChNP.

From here the following conclusions follow:

1. It means that the more ChNP, the less tax component of ChNP, i.e. at high ChNP and a small tax rate the state can collect very heavy taxes in absolute expression.
2. The ChNP less, the more there has to be a tax rate.

State revenues (taxes) and equilibrium ChNP: for their consideration the same approaches, as for consideration of the public expenditures and equilibrium ChNP, i.e. consideration from positions of the analysis of cumulative expenses and national release and consideration from positions of the analysis of streams of leaks and injections are used. The first approach, using definition of cumulative expenses as C + I + Xn + G, considers that fact that at increase in taxes consumption of C decreases to some size of Sa. I.e. there is a decrease in the schedule of cumulative expenses down, and it leads to decrease in equilibrium ChNP.

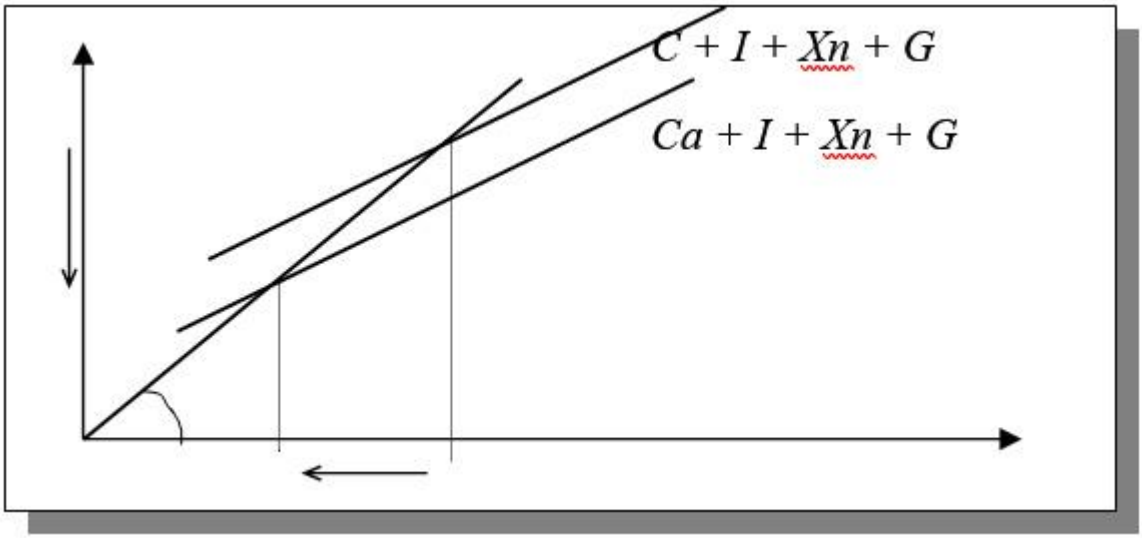


Figure 3: Government revenues and equilibrium NNP: from the standpoint of analyzing the flow of total expenditures and national output.

The second approach assumes dual influence of taxes. First, taxes conduct to reduction of the income after payment of taxes and to decrease in savings from size S up to the size Sa. Secondly, taxes as those, it is additional leak from system at each ChNP level, and have to be added to Sa + by M, giving Sa + to M + T. All this leads to shift of schedules, and finally we receive reduction of equilibrium ChNP.

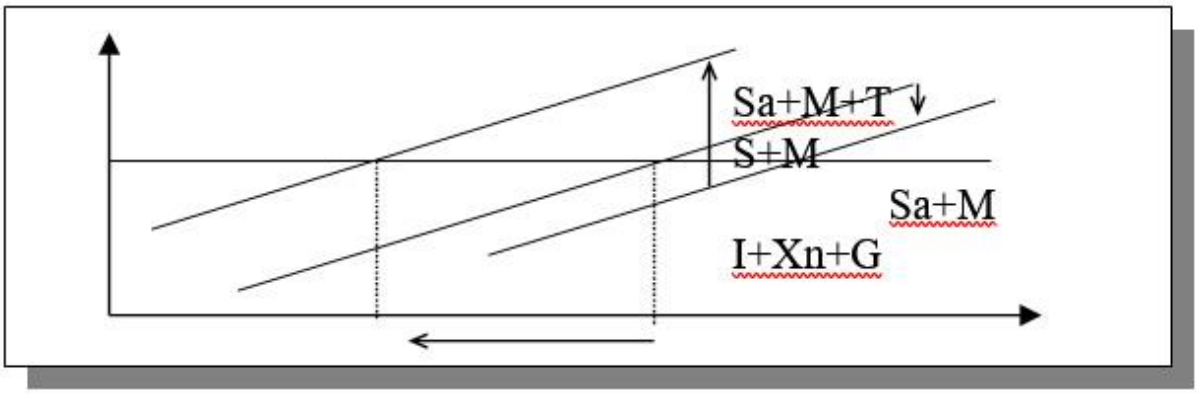


Figure 4: State revenues and equilibrium ChNP: from positions of the analysis of streams of leaks.

The conclusion at both approaches is identical: the increase in taxes leads to decrease in equilibrium ChNP. In case of decrease in taxes there is a movement of the schedule of cumulative expenses or decrease in level of the schedule of Sa + M + T up. Growth of size of equilibrium ChNP will be result anyway. I would also like to say about the mechanism called in the Western economic literature the Oliver-Tanzi effect". Its essence consists that the government isn't able to collect taxes instantly. Between the moment of implementation of economic activity, taxable, and the time log is always available the moment of payment of a tax. This situation doesn't depend on character of a tax (on profit, a value added tax, on the income). As a result, the government is compelled to pay the operating costs for the current prices though these expenses are financed by the taxes created on the basis of the prices of the previous period. If rate of inflation doesn't exceed several percent a year, compensation of this effect and maintenance of the balanced budget by means of little change of tax rates is quite real. If rate of inflation is estimated in tens or hundreds of percent a year, similar compensation is impossible because further increase of tax rates doesn't increase it, and on the contrary, reduces.

3. COMPOSITION OF BUDGET POLICY

The budgetary policy can't be effective if its main directions for the next period and prospect are accurately not defined, main goals and priorities aren't formulated. Thus, validity of the put-forward measures and the forthcoming decisions has to be supported with the corresponding calculations allowing to define not only a total cost of expenses of the state in connection with the made decisions, but also the remote financial consequences. Components of the budgetary policy are:

- fiscal, or tax policy;
- investment policy.

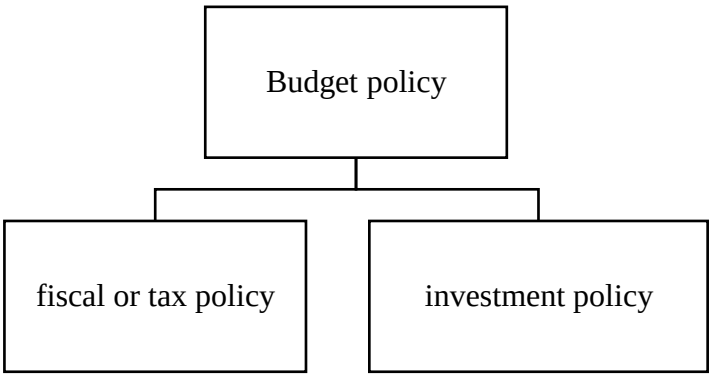


Figure 5: Budgetary policy.

In fiscal, or tax, policy interests of government, businessmen and hired workers that assumes a choice of this or that fiscal course, the principles of a tax policy face. Among the last the greatest fame was gained:

- the maximum taxation of the received and available vital values of subjects;
- taxation according to solvency of economic subjects;
- taxation according to mutual benefit of payers and the state;
- the principle of a donation from economic subjects.

The choice and ratio of the principles in concrete practice of the taxation substantially are defined by character of a state system, specifics of the historical moment and other factors. So, the first two principals were widely used by the totalitarian modes when interests of the ruling

state clique supported by power structures were put on the first place. After all the more taxes, the share of an internal product at the state is higher, it is more powerful and stronger than subjects. To the contrary, the last principles (mutual benefit and a donation) characterize a democratic system when citizens of the country through electoral system of government dictate a course and the course of fiscal policy.

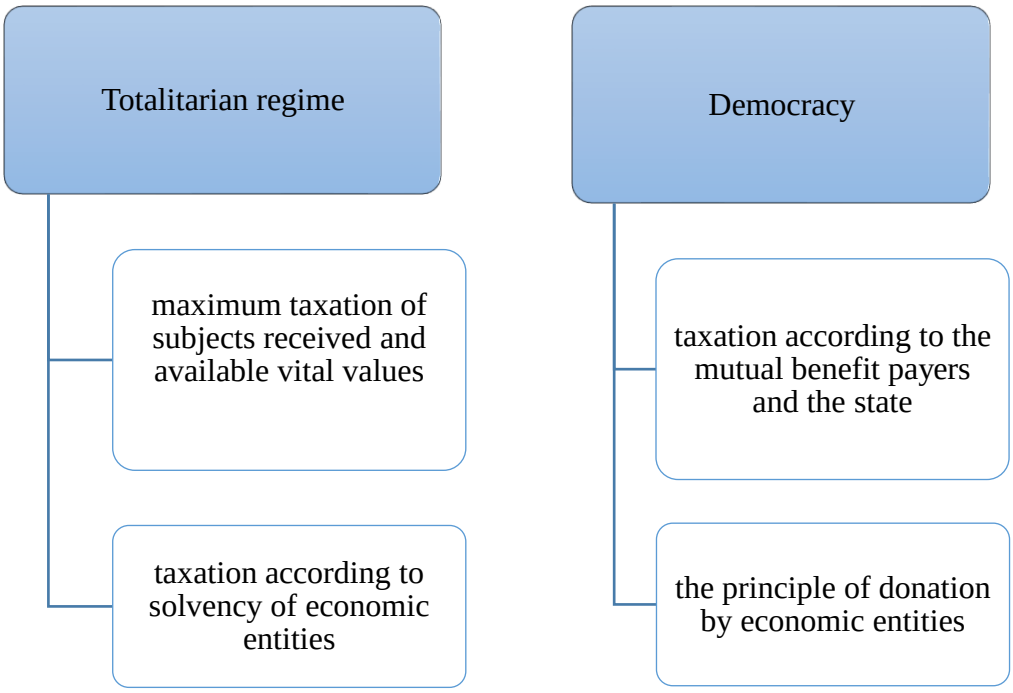


Figure 6: The ratio of the principles of taxation depending on the government

There is a classical objective situation: any choice of the principles has to guarantee a minimum of the vital benefits for existence and reproduction of labor as only real source of wealth, base of society and state.
The investment policy covers a big complex of problems among which the main are:

- the ratio of realization of inquiries of consumers and producers which is reflected in a proportion of the current investments and investments of development;
- ratio of interests of various subjects' consumers, definition of proportions of allocations for financial security of the maintenance of government, poor population, economically well-founded layers, etc.;
- providing a living wage to citizens of the country.

Such is the general maintenance of the budgetary policy. Its value is huge because the economic, financial basis of functioning of the state and activity of all society is defined by it.
For ensuring social protection the budgetary policy has to be carried out in the following directions:

- the budgetary forecasts from the economic point of view have to be completely proved, real opportunities of tax collecting have to be correctly estimated;
- it is correct to balance the income and expenses of the budget;
- ensuring growth of revenues of the budget by achievement of economic development in not oil sector;
- to perform necessary works on decrease in tax debts;
- improvement of the tax law for the purpose of strengthening of tax control, hindrance of evasion of taxes and expansion of tax base;

- for expansion of tax base and hindrance of evasion of taxes to apply the simplified taxation only on the relation of some kinds of activity;
- achievement of increase in receipts from privatization due to acceleration of privatization of the state property;
- achievement of lawful definition of releases from a value added tax to destination;
- increase in expenses of funds from the budget for social protection and social security, health care, education, science, construction and other socially directed purposes;
- further work on improvement of structure of deficiency of the state budget;
- financing of budget deficit at the expense of the sources which aren't creating inflation;
- achievement of development of securities market for issue of short, average and long-term bonds, expansions of a network of investment for the purpose of rational attraction of excessive money supply in the address, regulations of interest rates, increasing requirement to these papers, on the basis of the normal competitive principles.

The budgetary policy of the state is defined by the Constitution of the Azerbaijan Republic, the Law of the Azerbaijan Republic "About the budgetary system", and also other acts defining functions and obligations of various authorities in the field of the budgetary process. You shouldn't carry the budgetary policy only to the budgetary process. The law about the budgetary policy precisely defines functions of authorities in the budgetary process. The budgetary policy has the subjects and object. As subjects the government legislative and executive bodies of the power developing, claiming, controlling and executing the accepted budgetary policy, and also direct performers of budgets of all levels of the power act. Most often the budgetary tax law, the budgetary system and the budgetary mechanism understand as object of the budgetary policy in various combinations. However, some authors consider as more correct to recognize all budgetary process including the budgetary and tax right, the budgetary system, system of budgets and the budgetary mechanism as object of the budgetary policy. Each of these elements has to carry out the functions and tasks within the accepted budgetary policy: [1]

The budgetary policy has to be under construction on the following principles:
- the principle of objectivity - reflection in the budgetary policy of the objective processes happening in economy;
- the principle of continuity - formation of the budgetary policy the forthcoming fiscal year taking into account tasks and achievements of the previous period;
- the principle of obligation - the budgetary policy has to be obligatory for execution;
- the principle of publicity - openness, transparency and a submission to control of the budgetary relations at all stages of the budgetary process.

The budgetary policy can be divided into types and forms of realization.
1. On scale and long duration of the purposes and tasks distinguish strategic long-term (of 3 and more years) and tactical budgetary policy;
2. Depending on priorities of the budgetary policy allocate the following types:
    - the profitable type is characterized by that planning, execution and the organization of budgets are conducted from the income, under their volume the budgetary expenses and the main objectives are arranged.
    - the account type is based on submission of the income of the budget to its expenses.
    - the control regulating type. Characteristic features of this kind of policy is excessive regulation of economy, the state orders, tax privileges, expansion of state ownership on the fields of activity which are traditionally occupied by the private sector.

- the combined type is aimed at providing an equilibrium ratio of all functions of the budget, interests of the state, taxpayers, users by the state services and societies in general. Between these types of the budgetary policy it is difficult to draw a clear boundary. In practice the budgetary policy pursued by the state carries combined, but not always equilibrium character.

3. Depending on a strategic orientation of the budgetary regulation distinguish the stimulating and constraining budgetary policy.
4. On a territorial sign it is possible to allocate the state and local budgetary policy.
5. On the basis of subject specialization, it is possible to allocate tax, social, investment and other types of the budgetary policy.

In the budgetary message of the President of the Azerbaijan Republic for the next fiscal year the budgetary policy of the Azerbaijan Republic is defined. At the local level this policy is defined by decisions of appropriate authorities. This policy is carried out by activity of financial and tax authority (the Ministry of Finance of the Azerbaijan Republic), body regulating monetary - credit policy (the Central Bank of the Azerbaijan Republic), calculating - control body (Audit Chamber of the Azerbaijan Republic). Fiscal year of the Azerbaijan Republic and execution of the budgetary process covers the period in 12 months, from January 1 to December 31. Duration of the budgetary process exceeds fiscal year. As the budgetary process joins the period of carrying out the budgetary forecasting, and then time on implementation of the budgetary control, etc.

4. ACHIEVED RESULTS OF MODERN FINANCIAL POLICY OF AZERBAIJAN

The forecast for the income of the state budget for 2019 makes 23 billion 168 million manats, to expenses - 25 billion 190 million manats. It is offered to increase deficiency of the state budget for 2019 to 2 billion 22 million manats, or 2,5% of GDP. Price of oil in the state budget for 2019 is put of $60 for barrel ($55,1 for barrel in the state budget for 2018). Income of the state budget for 2018 is approved of 22 billion 149 million manats, expenses - 23 billion 100 million manats. Deficiency of the state budget is predicted at the level of 951 million manats, or 1,3% of GDP. In November 2018, Parliament of Azerbaijan adopted bills of a living wage and criterion of needs. According to the bill "About a Living Wage in Azerbaijan for 2019", this criterion about the country for the next year is established in 180 manats, for able-bodied population – in 191 manats, for pensioners – in 149 manats, for children – in 160 manats. The living wage for 2018 is established at a rate of 173 manats, for able-bodied population – 183 manats, for pensioners – 144 manats, for children – 154 manats. According to the bill "About Criterion of Needs for 2019", the criterion of needs for purpose of the address social help is established in 143 manats. It should be noted that in 2017 38 percent (6690,8 million manats) of expenses of the state budget of Azerbaijan were social appointment that for 7,3 percent or 453,7 million manats there is more than indicator of 2016. These funds were allocated in fund of compensation, for payment of grants and social benefits, for purchase of medicines and the food. Also, 62,1 percent (10921,1 million manats) of expenses of the state budget fell on the current expenses, 29,3 percent (5153,5 million manats) - capital expenses, 8,6 percent (1513,7 million manats) - expenses in connection with service of a public debt and other obligations. In general, expenses of the state budget of Azerbaijan last year were up to standard 17 588,3 million manats (at execution for 98 percent). Income of the state budget in 2017 made 16516,7 million manats against the forecast in 16 766 million manats that means execution of the forecast for 98,5 percent. In structure of revenues of the state budget of receipt through the ministry of taxes made 6972 million manats that is 8,8 percent less than the forecast. Besides, 74,5 percent (5192,7 million manats) from the budgetary receipts in Ministry of Taxes fell to

the share of not oil sector. Through the State Customs Committee 2 608,8 million manats that is 15,9 percent more than the forecast came to the state budget.

Indicators	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues-total	**10762.7**	**10325.9**	**11403.0**	**15700.7**	**17281.5**	**19496.3**	**18400.6**	**17498.0**	**17505.7**	**16516.7**
Value Added Tax	1910.9	2012.8	2082.5	2222.7	2366.9	2710.0	3119.6	3454.7	3623.5	3668.6
Excise	486.9	485.1	514.9	480.2	531.5	593.3	797.3	647.8	625.1	612.6
Profit tax of legal entities	2862.3	1329.2	1429.9	2134.0	2252.0	2374.8	2302.7	2211.1	1983.2	2285.9
Land tax	30.6	26.2	35.3	35.3	30.6	33.1	35.4	48.7	50.3	50.4
Tax on income of individuals	627.2	581.9	590.2	715.7	813.0	859.7	980.3	982.5	1145.7	1040.3
Tax related with foreign economic activities	449.7	418.1	291.8	433.1	592.5	675.2	684.7	934.5	861.2	903.0
Property tax	112.9	66.2	101.8	103.9	105.1	125.1	141.3	148.2	174.7	178.6
Other taxes	96.8	86.8	90.3	140.6	157.6	161.5	192.7	247.7	457.0	505.7
Other returns	4037.7	5197.7	6136.2	9305.4	10306.5	11842.1	10030.4	8706.7	8474.7	7160.5
Tax on mining	147.7	121.9	130.1	129.8	125.8	121.5	116.2	116.1	110.3	111.1

Table 1: Receipt of taxes and other payments in the state budget of Azerbaijan for 2008-2017, million manats: [2]

Besides, in 2017 366,1 million manats came to the state budget from the paid services rendered by budgetary organizations, 250 million manats - due to assignments from profit of the Central bank of Azerbaijan, 150 million manats - due to other receipts. Transfers in the budget made 6,1 billion manats that is 19,9 percent less than in a year before last of the State oil fund of Azerbaijan (SOFAZ). Deficiency of the state budget made 1141,4 million manats that for 33,6 million manats below the approved top limit. Financing of deficiency was provided due to sale of the state bonds (384,6 million manats), means from privatization (106,5 million manats) and the rest on the uniform treasury scoring of the state budget in January first, 2017 (650,3 million manats). In 2017 GDP growth of Azerbaijan made 0,1%. The volume of GDP of Azerbaijan in January-October 2018 made nearly 65,2 billion manats that is 0,8 percent more than an indicator of the similar period of last year, follows from the report of the State committee on statistics. GDP volume having per capita made 6648,1 manats. Following the results of the reporting period GDP volume made in not oil sector of Azerbaijan grew by one percent in comparison with January-October 2017, and in oil and gas sector growth by 0,3 percent was observed. For the reporting period, except for construction sector, in all spheres of economy growth was observed. So, the sphere of transport and warehouse economy grew by 8,6 percent, placements of tourists and a public catering - for 7,6 percent, information and communication services - for 8,8 percent, rural, forest and fishery - for five percent, trade and repair of vehicles - 2,6 percent, the industries - for 1,4 percent, other spheres - for 0,3 percent. The sector of construction was reduced by 15,8 percent. In structure of GDP of Azerbaijan 45,7 percent (nearly 29,8 billion manats) are created in the industry sphere, 6,3 percent (4,2 billion manats) - in construction, 5,6 percent (3,66 billion manats) - in rural, forest and fish farms. In 2019 increase of GDP for 3,9 percent, in the next years is predicted – on average for 3,4 percent, and the balance of payments of a current account according to forecasts will be positive.

5. CONSLUSION

For ensuring efficiency of the budgetary policy at its development it is important to observe certain requirements, namely: the scientific approach considering real state of the economy,

financial and budgetary system of the country; definition of its main objectives and tasks, and also the directions for the next period and prospect; validity of the put-forward measures and the forthcoming decisions considering a total cost of expenses of the state and the remote financial consequences. As objective fundamentals of the budgetary policy functions of the budget which are really realized in diverse public and economic life of the country, her subjects act. In research nine functions of budgets - redistributive, reproduction, regulating, stimulating, planned, control, fiscal, international and social are established. Their realization in economic and financial practice significantly affects numerous processes in economy and society. It allows to solve more successfully the problems facing the country. Moreover, from here a conclusion what exactly the budgetary relations form the budgetary policy of the state. They are under construction on interest of citizens and economic entities in receiving from the state of these or those services. The modern budgetary policy of Azerbaijan originates by the beginning of the 90th years when the new approaches which are based on elements of a market mechanism and state regulation of economy began to be used. In its basis - recognition of freedom of business activity, distribution of diverse forms of managing, privatization and privatization of state ownership, and transition to the mixed economy which is based on a skillful combination of private and state economic entities. On this base essentially, new budgetary mechanism is developed. The state refuses the directive management of the intraeconomic relations at the enterprises and transfers their relations with the budget to a tax basis which puts a barrier to any withdrawal of the income. All economic subjects receive uniform rules of distribution of the created budgetary resources to rather long prospect. Thus, research showed that along with the mechanism of formation of the budgetary policy, it is necessary to consider the mechanism of its realization. Both these mechanisms are interconnected, specifically influence at each other. How the mechanism of formation of the budgetary policy in many respects functions, and even a decisive image, efficiency of manifestation of the mechanism of realization of the budgetary policy depends. In turn, from that the last how successfully acts creation of the best conditions and opportunities for improvement of the first depends. Policy in the field of the income of the budget, first of all fiscal or tax, the policy in total with policy in the field of budget expenses, policy in the field of ensuring balance of the budget and effective management of the public (municipal) debt, and also policy in the field of the interbudgetary relations expresses functional aspect of the budgetary policy. Research showed that in public practice, including economy, during the forming and realization of the budgetary policy both the budgetary strategy, and the budgetary tactics, and various links of functional budgetary policy are applied. The solution of the main problems of the interbudgetary relations at the state level which is possible, first of all, and on the basis of more effective budgetary policy, is expressed in the following:

- in Azerbaijan the highest centralization of the tax and budgetary powers formally remains (despite rather noticeable financial decentralization) that demands significant measures for its decrease;
- to continue improvement of legislative fixing of methodology of the budgetary alignment on the basis of further specification of criteria and procedures, despite the available tendency of formalization of distribution of financial aid;
- to create the atmosphere reducing the overestimated social expectations and requirements to the budgetary security state and municipalities that will allow to overcome a contradiction between decentralization of the budgetary resources and formal centralization of the tax and budgetary powers;
- to increase transparency of the state and local budgets, to introduce complete system of monitoring of a state and quality of management of the public and municipal finances which results would be available not only to authorities of different levels, but also the population, investors and creditors.

The specified analysis confirms that the budgetary policy of the Azerbaijan Republic of the national economy of Azerbaijan developed on the basis of the Strategic road map is scientifically based and almost proved state document.

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BUDGET AND NON-FINANCIAL ASSETS

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ABSTRACT

Budget is the basic instrument used to fund public needs. The subject-matter of the research presented in this paper are expenditures for acquisition of non-financial assets within budget expenditures and expenses at the level of all units of local and regional self-government in the Republic of Croatia. Budget is adopted at the beginning of the year. Within it, effecting of expenditures is planned based on the available budget revenue. Expenditures for different types of assets (buildings, equipment, etc.) are presented within expenditures effected. Investment in certain types of assets is necessary in order to meet the prerequisites for better living conditions in a particular area. The size of such investment is under constant review. The aim of this paper is to research the effecting and share of expenditures for acquisition of non-financial assets within expenditures and expenses of the units of local and regional self-government and to make conclusions on their significance. Audit procedures that are conducted with the aim of a more cost-effective use of the available funds are discussed. The data of the Ministry of Finance, which is available at its webpages relating to budget execution at individual levels of government, as well as data collected from scientific literature were used in this paper. The paper confirms the hypothesis that the share of expenditures for acquisition of non-financial assets within total expenditures effected in particular units is significantly smaller than the share of operating expenditures. The above is analysed at individual levels of government and in particular at the county level. It is concluded that in total, at the level of all counties and the City of Zagreb, the share of expenditures for acquisition of non-financial assets has decreased; however, at the municipality level, the share of such expenditures has increased. In the absolute amount, expenditures for acquisition of non-financial assets are highest at the town level. At the level of individual counties, the shares of expenditures for acquisition of non-financial assets within the total expenditures and expenses effected are different, depending on budgetary constraints.

Keywords: *Auditing, Local and regional self-government, Budget, Expenditures, Non-financial assets*

1. INTRODUCTION

Budget is adopted by the representative body of a unit of local and regional self-government. Expenditures and expenses are planned based on the budget revenue determined for one calendar year. Constant monitoring of budget revenue realization is necessary in order for the planned expenditures to be effected with the planned frequency. Expenditures are divided into operating expenditures, expenditures for acquisition of non-financial assets and expenses for financial assets and loan repayment.

Within this paper, research was conducted concerning the size and share of expenditures for acquisition of non-financial assets within expenditures and expenses of the units of local and regional self-government and conclusions were made concerning effecting thereof depending on the budgetary constraints. The hypothesis is that expenditures effected for acquisition of non-financial assets significantly differ according to the levels of government (counties, towns and municipalities) and that effecting thereof significantly differs in each of the counties, but that share thereof within total expenditures effected is significantly smaller than the share of operating expenditures.

2. EXPENDITURES AND EXPENSES

When discussing expenditures and expenses, it is necessary to define what is meant by the terms 'expenditure' and 'expenditure for acquisition of non-financial assets'. The provisions of Article 20 of the Ordinance on Budgetary Accounting and Chart of Accounts (Official Gazette 124/14, 115/15, 87/16 and 3/18) define expenditures as decreases of economic benefits in the form of a reduction of assets or an increase of liabilities and expenses as outflows of cash and cash equivalents on all bases. Expenditures are generally divided into operating expenditures and expenditures for acquisition of non-financial assets. Operating expenditures are further divided into personnel expenditures, material expenditures, financial expenditures, subsidies, foreign aid and general budget support, benefits and other expenditures. Expenditures for acquisition of non-financial assets are divided according to the type of acquired non-financial assets (land, mineral resources, patents, concessions, licenses, buildings, equipment, vehicles, books, inventories, additional investments). Budget expenditures and expenses effected may be analysed at the state and local levels, i.e. according to the level of funding public needs. The aim of this paper is to determine the size and significance of expenditures for acquisition of non-financial assets within budget expenditures and expenses of units of local and regional self-government, as well as changes thereof in the period between 2015 and 2017. Likewise, the legal basis for effecting expenditures for acquisition of non-financial assets is examined. Expenditures for acquisition of non-financial assets and the size thereof within total expenditures and expenses effected are examined and presented based on the type of expenditures and expenses (Table 1 and Table 2). Expenditures for acquisition of non-financial assets are examined according to effecting thereof and according to the type of local unit, which includes effecting of expenditures at the level of all counties, at the town level and at the municipality level (Table 3 and Table 4). The third thing that is presented in this paper is the expenditures effected for acquisition of non-financial assets within total expenditures effected for each of the counties (Table 5). Based on the data collected, calculation of shares of expenditures for acquisition of non-financial assets were made and indices were calculated. A comparison was made of the data so obtained and a conclusion was made in regard to their significance.

2.1. Total expenditures and expenses effected

This section will provide an overview of total expenditures and expenses effected at the level of all counties and the City of Zagreb. Total expenditures and expenses were analysed according to individual types, i.e. depending on how much of the budget funds was spent on operating expenditures, how much was spent on expenditures for acquisition of non-financial assets, and how much was spent on financial assets and loan repayments. Table 1 provides an overview of expenditures and expenses effected in all counties and the City of Zagreb in the period between 2015 and 2017, according to the type of expenditures and expenses and containing expenditures for acquisition of non-financial assets. The absolute amount of total expenditures and expenses per county increased in almost all counties in 2017 in comparison with 2016 and also in comparison with 2015. Operating expenditures have the most significant share within total

expenditures and expenses effected in 2017 (81.87%), followed by expenditures for acquisition of non-financial assets (13.91%) and expenses for financial assets and loan repayments (4.22%). In the absolute amount, all expenditures had a tendency to increase in 2017 in comparison with 2015, as well as in 2016 in comparison with 2015, apart from the expenditures for acquisition of non-financial assets, which decreased in 2017 in comparison with 2016. Effecting of expenditures for acquisition of non-financial assets is analysed below.

Table 1: Expenditures and expenses effected in all counties and the City of Zagreb, 2015 – 2017, according to the types of expenditures and expenses (in HRK). Source: author, according to the data of the Ministry of Finance available at http://www.mfin.hr/hr/ostvarenje-proracuna-jlprs-za-period-2014-2017

No.	Expenditures	2015	2016	2017	Share 2017
1	2	3	4	5	6
1	Operating expenditures	18,974,743,520	19,467,401,065	20,494,497,247	81.87
2	Expenditures for acquisition of non-financial assets	2,812,074,069	3,519,061,292	3,482,875,265	13.91
3	Expenses for financial assets and loan repayments	972,379,314	1,017,888,586	1,059,616,789	4.22
TOTAL		22,759,196,903	24,004,350,943	25,036,989,301	100

2.1.1. Expenditures for acquisition of non-financial assets

Expenditures for acquisition of non-produced non-current assets, acquisition of produced non-current assets, acquisition of precious metals and other stores of value, acquisition of produced current assets and additional investments in non-financial assets are recorded within expenditures for acquisition of non-financial assets. Table 2 presents an overview of total expenditures and expenses effected and of expenditures for acquisition of non-financial assets according to effecting at the level of all counties and the City of Zagreb, at the county level, at the level of towns and municipalities combined, and individually at the town level and at the municipality level. In regard to the listed data, it is necessary to note the information related to the territorial division of the Republic of Croatia which pertains to the number of local units. The territory of the Republic of Croatia is divided into 20 counties as units of regional self-government, into towns and municipalities as units of local self-government (there is a total of 126 towns and 428 municipalities), and into the City of Zagreb, which has special status as both city and county. This means that there is a total of 555 units of local self-government and a total of 576 units of local and regional self-government (Act on the Territories of Counties, Towns and Municipalities in the Republic of Croatia, Official Gazette 86/06).

Table following on the next page

Table 2: Expenditures and expenses effected in all counties and the City of Zagreb, 2015 – 2017 and expenditures for acquisition of non-financial assets (in HRK). Source: author, according to the data of the Ministry of Finance available at http://www.mfin.hr/hr/ostvarenje-proracuna-jlprs-za-period-2014-2017

No.	Expenditures	2015	2016	2017
1	2	3	4	5
1	Total all counties and City of Zagreb (20 counties + City of Zagreb)	22,759,196,903	24,004,350,943	25,036,989,301
1.1	Expenditures for acquisition of non-financial assets	2,812,074,069	3,519,061,292	3,482,875,265
2	Total expenditures and expenses – COUNTIES (20 counties)	3,769,173,005	3,763,387,771	4,042,057,507
2.1	Expenditures for acquisition of non-financial assets	246,599,908	232,128,303	165,466,185
3	Total expenditures and expenses - TOWNS AND MUNICIPALITIES (554 towns and municipalities)	18,990,023,898	20,240,963,172	20,994,931,794
3.1	Expenditures for acquisition of non-financial assets	2,565,474,161	3,286,932,989	3,317,409,080
4	Total expenditures and expenses – TOWNS (126 towns)	15,167,749,172	16,281,722,950	16,821,168,494
4.1	Expenditures for acquisition of non-financial assets	1,623,637,780	2,264,490,555	2,207,487,457
5	Total expenditures and expenses - MUNICIPALITIES (428 municipalities)	3,822,274,726	3,959,240,222	4,173,763,300
5.1	Expenditures for acquisition of non-financial assets	941,836,381	1,022,442,434	1,109,921,623

A different number of towns and municipalities is found in the territory of each county. Expenditures and expenses of local units are related to performing activities pertaining to self-government, which activities relate to development of settlements and housing, physical and urban planning, utilities, childcare, welfare, primary healthcare, primary education, culture, physical education and sports, consumer protection, protection and improvement of the environment, fire protection and civil protection, traffic in their territory and other activities in accordance with special legislation (Article 19 of the Act on Local and Regional Self-Government). Table 3 shows a decrease in the share of expenditures for acquisition of non-financial assets at the level of all counties and the City of Zagreb (the share was 13.91% in 2017, 14.66% in 2016 and 12.36% in 2015). At the county level, the share of expenditures for acquisition of non-financial assets also saw a decrease (the share was 4.09 % in 2017, 6.17% in 2016 and 6.54% in 2015).

Table 3: Expenditures and expenses effected in all counties and the City of Zagreb and expenditures for acquisition of non-financial assets, 2015 – 2017, relative numbers. Source: author, according to data in Table 2

No.	Expenditures	% 2015	% 2016	% 2017	Index 2015 = 100	
					2016	2017
1	2	3	4	5	6	7
1	Total all counties and City of Zagreb (20 counties + City of Zagreb)	100	100	100	105.47	110.01
1.1	Expenditures for acquisition of non-financial assets (1.1/1)	12.36	14.66	13.91	125.14	123.85
2	Total expenditures and expenses – COUNTIES (20 counties)	100	100	100	99.85	107.24
2.1	Expenditures for acquisition of non-financial assets (2.1/2)	6.54	6.17	4.09	94.13	67.10
3	Total expenditures and expenses - TOWNS AND MUNICIPALITIES (554 towns and municipalities)	100	100	100	106.59	110.56
3.1	Expenditures for acquisition of non-financial assets (3.1/3)	13.51	16.24	15.80	128.12	129.31
4	Total expenditures and expenses – TOWNS (126 towns)	100	100	100	107.34	110.90
4.1	Expenditures for acquisition of non-financial assets (4.1/4)	10.70	13.91	13.12	139.47	135.96
5	Total expenditures and expenses - MUNICIPALITIES (428 municipalities)	100	100	100	103.58	109.20
5.1	Expenditures for acquisition of non-financial assets (5.1/5)	24.64	25.82	26.59	108.56	117.85

The same conclusion in regard to the decrease of the share of expenditures for acquisition of non-financial assets was also reached at the level of towns and municipalities combined, but also individually at the town level. At the municipality level, the share of expenditures for acquisition of non-financial assets saw an increase (it was 24.64% in 2015, 25.82% in 2016 and 26.59% in 2017).

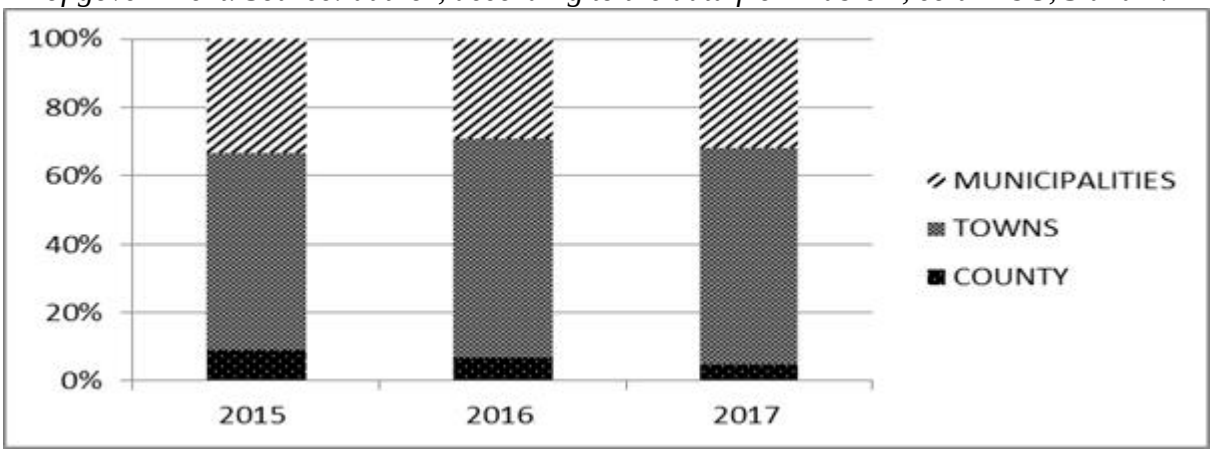
2.1.2. Expenditures for acquisition of non-financial assets by levels of government

Expenditures for acquisition of non-financial assets by levels of government are presented in Table 4. Regarding total effected expenditures and expenses for acquisition of non-financial assets, towns have the largest share, followed by the municipalities, whereas the counties have the smallest share of said expenditures and expenses. The share of the counties decreased and the share of the towns and municipalities increased.

Table 4: Expenditures for acquisition of non-financial assets by level of government. Source: author, according to the data of the Ministry of Finance available at http://www.mfin.hr/hr/ostvarenje-proracuna-jlprs-za-period-2014-2017.

Level of government	2015	%	2016	%	2017	%
1	2	3	4	5	6	7
Counties (20 counties)	246,599,908	8.77	232,128,303	6.60	165,466,185	4.75
Towns and municipalities (554 towns and municipalities)	2,565,474,161	91.23	3,286,932,989	93.40	3,317,409,080	95.25
Towns (126 towns)	1,623,637,780	57.74	2,264,490,555	64.35	2,207,487,457	63.38
Municipalities (428 municipalities)	941,836,381	33.49	1,022,442,434	29.05	1,109,921,623	31.87
Total	2,812,074,069	100	3,519,061,292	100	3,482,875,265	100

Figure 1: Share in total effected expenditures for acquisition of non-financial assets by level of government. Source: author, according to the data from Table 4, columns 3, 5 and 7.



2.1.3. Expenditures for acquisition of non-financial assets at the county level

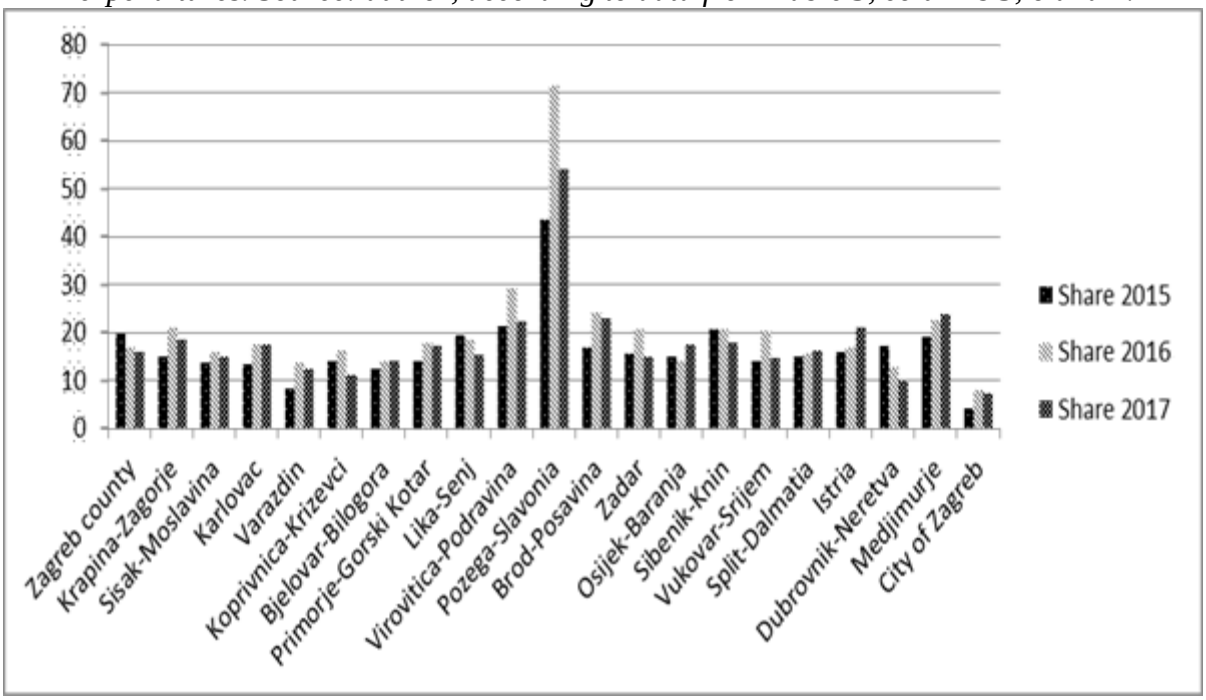
Changes in effected expenditures for acquisition of non-financial assets at the level of all counties and their share within total effected expenditures and expenses is presented below. Said changes are listed in Table 5 and they are also presented in Figure 2 for a better overview. Table 5 presents effected expenditures for acquisition of non-financial assets in total realised expenditures and expenses at the county level in 2015, 2016 and 2017. Data related to expenditures and expenses at the level of all counties includes expenditures and expenses of all municipalities, towns and counties. In comparison with 2016, the average share at the level of all counties decreased in 2017. In 2015, the average share at the level of all counties was 12.36%, in 2016 it was 14.66%, whereas in 2017 it was 13.91%. In 2017, the share of effected expenditures for acquisition of non-financial assets within total effected expenditures and

expenses at the level of all counties increased by 12.54% in comparison with 2015. Average amount of effected share at the level of all counties results from the impact of particular counties with below-average effected expenditures for acquisition of non-financial assets. However, there are some counties with above-average effected expenditures.

Table 5: Expenditures for acquisition of non-financial assets and share thereof within total expenditures and expenses at the level of each county. Source: author, according to the Ministry of Finance available at http://www.mfin.hr/hr/ostvarenje-proracuna-jlprs-za-period-2014-2017.

County	Expenditures for acquisition of non-financial assets (in HRK)			Share in total expenditures of each county		
	2015	2016	2017	2015	2016	2017
1	2	3	4	5	6	7
Zagreb	287,000,627	240,360,066	245,301,950	19.83	16.79	15.84
Krapina-Zagorje	62,774,590	95,320,561	86,930,816	14.86	21.06	18.43
Sisak-Moslavina	99,611,406	128,989,323	119,029,279	13.61	15.88	15.07
Karlovac	70,695,635	98,936,743	97,759,109	13.40	17.63	17.42
Varaždin	55,543,972	91,901,432	85,813,376	8.40	13.70	12.39
Koprivnica-Križevci	70,186,255	82,804,010	57,519,091	14.07	16.36	11.15
Bjelovar-Bilogora	50,871,854	59,568,053	58,095,878	12.53	13.83	13.94
Primorje-Gorski Kotar	285,714,384	377,927,831	355,453,214	14.00	17.88	17.12
Lika-Senj	58,532,721	64,069,816	58,241,174	19.24	18.42	15.36
Virovitica-Podravina	77,223,399	103,090,755	75,159,159	21.43	29.13	22.16
Požega-Slavonia	35,689,354	57,243,811	60,584,133	43.50	71.40	53.94
Brod-Posavina	74,050,925	118,259,601	124,141,981	16.90	24.17	23.02
Zadar	150,534,221	213,962,166	159,310,516	15.48	20.62	14.91
Osijek-Baranja	174,438,776	153,587,500	212,614,387	14.85	13.88	17.33
Šibenik-Knin	115,914,557	114,063,049	106,546,756	20.65	20.56	17.82
Vukovar-Srijem	88,047,011	138,445,505	101,241,147	14.05	20.28	14.54
Split-Dalmatia	318,036,598	355,208,437	380,222,789	15.00	15.55	16.20
Istria	256,577,756	277,329,799	377,669,077	16.04	16.76	21.10
Dubrovnik-Neretva	144,186,779	110,154,121	86,193,171	17.03	12.67	9.83
Međimurje	73,453,446	95,741,552	108,617,681	19.20	22.42	23.71
City of Zagreb	262,989,803	542,097,161	526,430,581	4.13	7.82	7.19
Total	2,812,074,069	3,519,061,292	3,482,875,265	12.36	14.66	13.91

Figure 2: Share of expenditures for the acquisition of non-financial assets in total county expenditures. Source: author, according to data from Table 5, columns 5, 6 and 7.



According to data from Table 5, in 2017, the share of expenditures for acquisition of non-financial assets in total expenditures and expenses at the level of all counties and the City of Zagreb was 13.91%, thus being lower than in comparison with 2016 (14.66%), as well as in comparison with 2014 (18.35 %). Expenditures for acquisition of non-financial assets are investments realised by local units for improvement of the living conditions in their areas. They include investments in town squares, parking lots, facilities and other (Mahaček, 2016).

3. AUDIT PROCEDURES FOR EXPENDITURES FOR ACQUISITION OF NON-FINANCIAL ASSETS

Audit of expenditures for acquisition of non-financial assets represents an integral part of the audit procedure for expenditures and expenses, which is conducted as a part of a financial audit. Effected expenditures are determined in accordance with legal provisions, the statute, ordinances and decisions of a relevant local unit. If internal documents and decisions, under which particular expenditures had been effected, were not in compliance with legal provisions, the auditors ordered harmonisation of said documents with legal provisions. Local units adopt the programme for the construction of municipal infrastructure facilities and the report on the implementation of said programme. When adopting and implementing the programme for the construction of municipal infrastructure facilities and the programme for municipal infrastructure maintenance, it is necessary to take the public interest into consideration and allow that individual interests are realised and protected in the manner that is neither contrary nor detrimental to the public interest (the principle of protecting the public interest) (Utilities Act, 2018, Article 5). In the audit procedure, it is also necessary to include the audit of compliance with legal provisions related to public procurement, which includes acquisition via agreements for the public procurement of goods, works or services supplied by one or several contracting authorities or entities from economic operators chosen by said authorities or entities, regardless of whether these goods, works or services are intended to serve a public purpose (Public Procurement Act, 2016, Article 1). Various business transactions related to the procurement of goods and services, payment of liabilities and potential procedures arising from the execution of an agreement by the supplier (default, complaints, etc.) are processed in the

procurement cycle. Procurement cycle usually consists of the following elements: issuance of a purchase order, procurement, processing of incoming invoices, payment, trade payables and general ledger. Main stages of control risk assessment in the procurement cycle are:

- "understanding and documenting the internal procurement control system based on the planned level of control risk,
- planning and performing invoice control tests for invoices related to a particular procurement cycle,
- assessing and documenting control risks of the procurement cycle" (Messier Jr., 1998).

Moreover, the same author also states that "proper segregation of duties is one of the most important control procedures in any accounting system. Duties should be assigned to individuals in such a way that no one can control the entire processing of a transaction. Otherwise, it will be impossible to detect potential errors. There are many different errors that may occur. Auditors must examine transactions and obtain information for each group of transactions to examine the accuracy of the performed procedure, i.e. verify whether the procurement of goods or services complies with the procurement approval policy.

4. CONCLUSION

The paper contains a study of expenditures for acquisition of non-financial assets in relation to their amounts, their share within total expenditures and expenses and changes in their absolute and relative amounts. The hypothesis that expenditures for acquisition of non-financial assets vary significantly by level of government (counties, towns and municipalities), that effected expenditures are significantly different per counties and that the expenditures are significantly lower than operating expenditures has been confirmed. Based on the study contained in this paper, it can be concluded that, during the observed period, total expenditures and expenses per counties have increased in almost all counties in terms of their absolute amount. The largest share in total effected expenditures and expenses relates to operating expenditures, followed by the expenditures for acquisition of non-financial assets, expenses for financial assets and repayment of loans. In total, at the level of all counties and the City of Zagreb, the share of expenditures for acquisition of non-financial assets have decreased. At the county level, as well as at the town and municipality level combined, the share of expenditures for acquisition of non-financial assets decreased. Said expenditures also decreased at the level of towns individually, whereas the share of expenditures for acquisition of non-financial assets increased at the municipality level. Therefore, it can be concluded that the municipalities have the largest share of expenditures for acquisition of non-financial assets, even though the towns have the largest expenditures for acquisition of non-financial assets in terms of their absolute amount. Regarding total expenditures for acquisition of non-financial assets, towns have the largest share in total effected expenditures and expenses for acquisition of non-financial assets, followed by the municipalities, whereas the counties have the smallest share of said expenditures and expenses. The share of the counties has decreased and the share of the towns and municipalities has increased. By analysing changes in effected expenditures for acquisition of non-financial assets at the level of all counties and by analysing shares in total effected expenditures and expenses at the level of each county (including expenditures and expenses of all municipalities, towns and counties), it can be concluded that, in the final observed year, the average share of said expenditures at the county level has decreased in comparison with 2016. In 2017, the share of effected expenditures for acquisition of non-financial assets in total effected expenditures and expenses at the level of all counties increased by 12.54% in comparison with 2015. At the county level, shares of effected expenditures for acquisition of non-financial assets in total expenditures and expenses are different. By examining expenditures for acquisition of non-financial assets in absolute amounts, it can be concluded

that, at the level of all counties, the absolute amount of expenditures for acquisition of non-financial assets in 2017 increased in comparison with 2015. However, in 2017, the absolute amount decreased in comparison with 2016. Any increase in expenditures for acquisition of non-financial assets is justified as long as it results in the improvement of the living conditions in a particular area, provided that the principle of cost-effectiveness is observed when spending any resources.

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DIRECTIONS OF IMPROVEMENT OF THE INVESTMENT MECHANISM ENSURING THE ECONOMY OF THE REGION WITH PARTICIPATION OF THE PUBLIC-PRIVATE PARTNERSHIP

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ABSTRACT

This article discusses the creation of an effective mechanism to attract investment in the regional economy with the participation of public-private partnerships, with a view to the successful implementation of large infrastructure projects of national importance. In the modern conditions of the development of the Russian economy, a public-private partnership is the most universal and effective interaction mechanism, creating the necessary effect for the development of various sectors of the economy. The need for modernization of the regional economy necessitates the need for further studies of the problem of attracting sufficient investment in the innovative development of the region, including the participation of public-private partnership, in the development of specific measures to improve the mechanism of investment support of the economy at the regional level, the development of strategies for investment support of the economy of the region with the participation of public-private partnership. Based on the study, the authors proposed a methodology for implementing the mechanism of investment support for the economy at the regional level. Also we formulated the conditions for improving the effectiveness of the mechanism of public-private partnership. The authors identified the tools that make it possible to increase the efficiency of interaction between government and business structures in the form of public private partnership and proposed the measures to increase the efficiency of management decisions of investing regional projects. In conclusion, the given article proposes specific measures to improve the mechanism of investment support of the economy at the regional level.

Keywords: *investment projects, public-private partnership, regional economy, government and business structures, the mechanism of investment support*

1. INTRODUCTION

Modern development is characterized by a systemic slowdown in economic growth, which is formed under the influence of adverse factors both external and internal environment.

At the same time, the external factors of negative impact can be attributed to the slowdown in the dynamics of world trade, the decline in the growth rate of the Chinese economy (which largely programs the world commodity situation), as well as the economic integration crisis in Europe, which continues to gain momentum. At the same time, it should be noted that the main internal reasons include the low level of investment attractiveness of the regional economies of the Russian Federation, poor institutional and infrastructure environment, as well as high costs of industrial business (defined, in turn, not innovative technologies and insufficiently qualified personnel). It should be emphasized that in order to analyze the prospects of investment activities, it is necessary to consider the General trends in the development of the economy of the state. Currently, most of the investments in the economy are made from public sources. Judging by the main investor countries in the Russian economy and data on capital outflows, we can judge that a significant part of investments from foreign countries are investments of Russian companies that were previously exported to other countries. In turn, this suggests that Russia is not as attractive a country for foreign companies and investors as it is customary to talk about. In modern economic conditions, in order to successfully implement major infrastructure projects of national importance, it is necessary to combine the efforts and interests of public authorities and private business representatives to achieve maximum effect. At this stage of development of the Russian economy, public-private partnership is the most universal and effective mechanism of interaction of this cooperation. The importance of the Institute of public-private partnership in Russia is increasing every year, creating the necessary effect for the development of various sectors of the economy. Competent formation and development of the mechanism of public-private partnership will create the necessary conditions for attracting investment.

2. CHAPTER 2

Public-private partnership should be the key to reforming the system of public administration, a new concept of relations between the state and business, which can become the engine of transformation in the system of public administration and in the commercial sector. As of the beginning of 2017, there were 2,183 public-private partnership projects in the Russian Federation that have passed the stage of commercial closure (signing of agreements), under which the total investment obligations (obligations to Finance the creation, construction, reconstruction) of the public and private parties are – 2,040 trillion. rubles, including the obligations of private partners – 1,336 trillion. rubles (65.4%). Speaking about the types of public-private partnership projects, it should be noted that concession agreements are most common. The authorities continue to learn from the experience of structuring public-private partnership projects at the Federal level in the road sector – the demand for the modernization of road infrastructure remains high. In June 2016, the first Federal concession for railway transport facilities was signed. We are talking about the construction of several facilities in the dry cargo area of the seaport of Taman with a volume of private investment of 500 million rubles. One of the most dynamic not only in the General economic scale, but also in the infrastructure circuit is considered to be the information and communication sphere. Today, projects aimed at maintaining public order and security are also being implemented in this area. In the field of solid municipal waste management, investors are ready for long-term partnership under the conditions of project complexity at each stage of waste management, as well as the inclusion of the project in the industry scheme. The demand for the implementation of such projects by foreign private investors is constantly growing. It should be noted that in 2016 in the Russian Federation there was a positive dynamics of growth of the market of public-private partnership projects, both in monetary and quantitative terms. Despite this, taking into account the nominal GDP of Russia at the level of 120 trillion. the potential for attracting investments has been realized by less than 1%.

For comparison, in a number of countries with a similar structure and volume of investment in infrastructure on the principles of public-private partnership, the percentage of the ratio of foreign investment to nominal GDP is much higher. This attitude, according to expert estimates, should be at the level of about 4-5%, then we can directly talk about a balanced process of attracting foreign investment on the principles of public-private partnership in the Russian economy. Foreign investment should have additional preferences. To interest entrepreneurs, the rate of profit of the business must be at least 20%. It is also necessary to develop the regulatory framework for the implementation of public-private partnership projects.

3. CHAPTER 3

Attracting foreign investments to the regions can stimulate the modernization of the economy and its development, for this it is necessary: to revise the existing state policy, to increase the investments of state corporations (which currently provide only about 30% of all investments), as well as to improve the quality of the investment climate. The development of territories, institutions of development of the country, ensuring the functioning of mechanisms to attract investment in the economy of the regions at the present stage in a number of countries is not effective. Corruption, administrative barriers, skills and educational attainment in both the public and private sectors are hindered (figure 1).

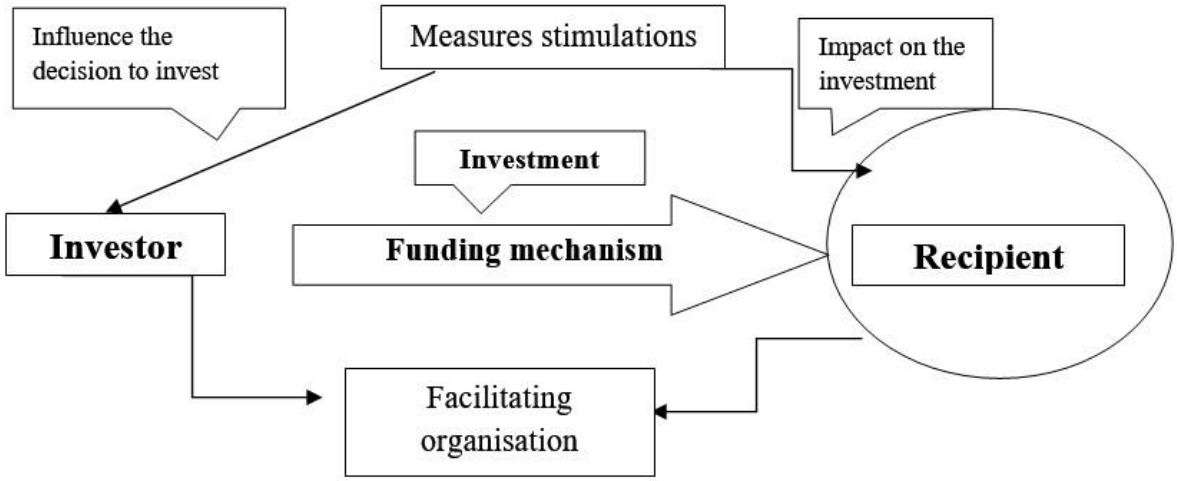


Figure 1: The mechanism of attraction of foreign investments

It should be noted that "in assessing the effectiveness of the mechanisms, first of all, it is necessary to consider the internal processes of the functioning of the system, as well as the significance of the results of the mechanism" (1). However, it is worth noting that there is a big difference in the level of development of the territories, as well as in the level of their investment potential. Thus, the regions of the Russian Federation rich in natural resources are actively developing, while the rest are experiencing an acute shortage of funds for development. Thus, in order to analyze the prospects of investment activities, it is necessary to consider not only the mechanisms of attracting foreign investment, but also the General trends of economic development. At the same time, the subjects of the Russian Federation have the right to provide tax incentives for regional taxes, thereby stimulating the inflow of investments and not diverting funds from the regional budget. However, these measures are not such a significant factor for the investor when making a decision. At the same time, it should be noted that "the strategy of investment development of the region should offer a specific set of program-targeted measures demanded by the regional economy and the world capital market, depending on the type of development of the region. It is obvious that all regional economies, United in the national geo-economic space, have different growth potentials and capitalization of regional industries.

Therefore, the use of the same measures and instruments in the practice of state regulation of investment development will have a different effect. Therefore, when forming the strategy of investment development of territories, it is necessary to take into account these features and use methods of attracting investments that demonstrate maximum efficiency." (2). Thus, for typology should be applied positioning model, which gives an idea of the nature of economic development of territories and its competitive advantages. It should be noted that the effectiveness of the investment policy, which is carried out, strongly depends on how it relates to the capabilities of the state and its territory. At the same time, it should be emphasized that in the formation of the investment development strategy, as a basic concept, one of the equilibrium theories should be chosen, which harmonizes the demand for investment and the supply of investment resources from the world investment capital market. Along with this, it should be noted that the formation of the investment strategy should be included in the program-target approach to strategic planning of socio-economic development of the state. If we talk about the investment strategy, then, in our opinion, it should be aimed at achieving and solving conceptual goals and objectives. It should be noted that " the development of ways to improve the management of investment activity requires the identification of factors on which the development of this process depends:

- creating a favorable investment climate and ensuring investment attractiveness;
- availability of land plots that the local administration intends to allocate for construction;
- availability in the portfolio of effective investment projects that contribute to the inflow of investments into the region from all possible sources, including from abroad;
- provision of the proposed construction sites, developed municipal, transport infrastructure and social facilities;
- availability of capacities of construction and installation organizations and enterprises, their material and technical base;
- provision of reserves of labor resources corresponding to the required qualification;
- the functioning of the real estate market, where economic relations between investors are manifested in the framework of operations carried out through real estate agencies". (3)

Ensuring high-performance management and economic development with the participation of public-private partnership is one of the most important tasks of the authorities. In accordance with international experience, public-private partnership is the most effective form of partnership between public authorities and representatives of private business. The creation of an effective mechanism, tools and forms of public-private partnership assists in attracting foreign investors to infrastructure projects, including socially significant ones. Developing and improving the mechanism of public-private partnership, public authorities and local governments will be able to further attract private capital in priority infrastructure projects (transport, information systems), objects of social importance (health, science, public safety), utilities, landscaping and other Tools that increase the effectiveness of the mechanism of interaction between the government and business structures in the form of public-private partnership (figure 2).

Figure following on the next page

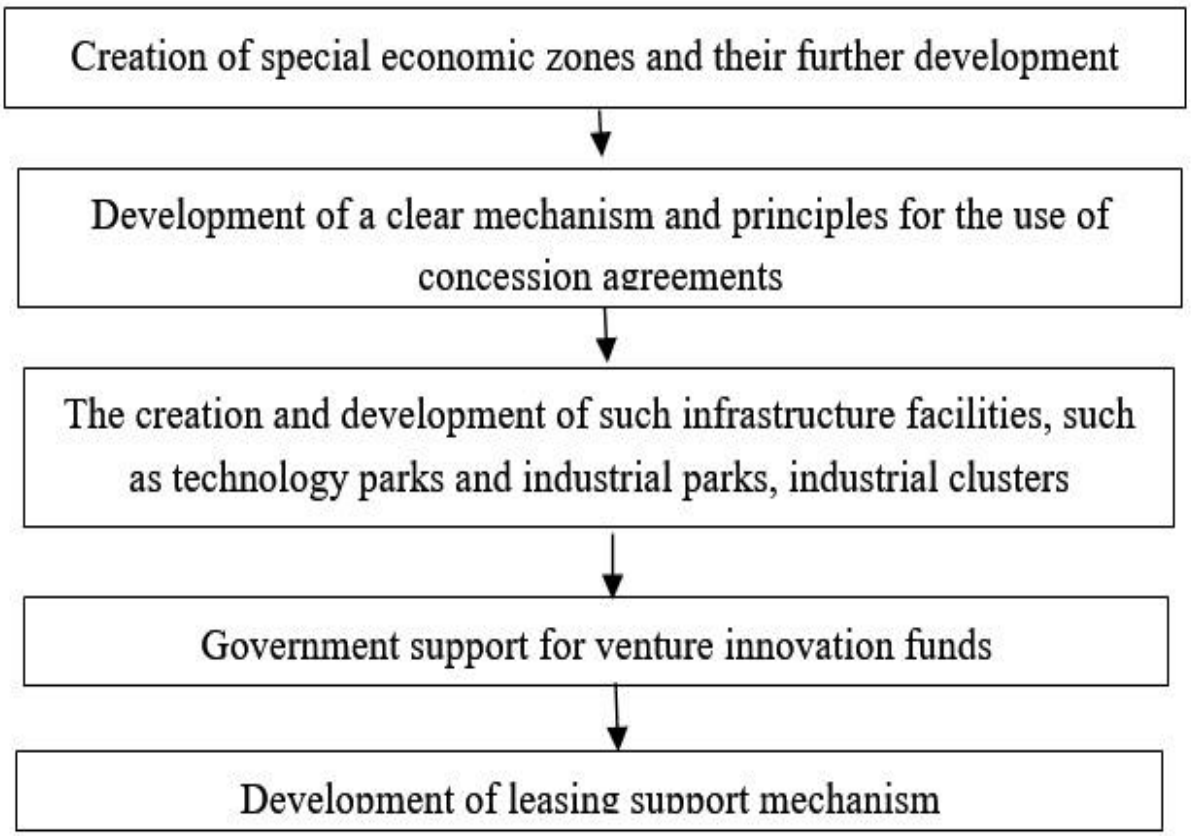


Figure 2: Conditions of increase of efficiency of the mechanism of state-private partnership

At the present stage, there is no common understanding of the mechanism of public-private partnership, which should become the core for the formation of an effective model of regional economic management. The lack of a common vision leads to the fact that the regions in their own way interpret the mechanisms of public-private partnership, and therefore forms this direction in accordance with their subjective understanding. This article suggests that in order to ensure the effectiveness of the partnership, as well as to minimize the problem of trust between the state and private partners, it is necessary to create a coordination Council – an Advisory body. The Council should be organized for the purpose of effective interaction between the state and business in the framework of public-private partnership. It should be noted that only the use of certain administrative management decisions can have an impact on the use of tools to attract investment in socially important industries, remove obstacles to the implementation of large-scale projects in the regions, and also allow the search for promising areas for investment. At the same time, public-private partnership should become one of the effective tools for the management of regional authorities on the way to success. In our opinion, the coordinating Council will have to address the following tasks:

- coordination of the activities of the Executive bodies of state power on the formation and implementation of state policy in the field of public-private partnership development in the territory of the state, the region;
- ensuring the interaction of potential investors with the authorities and development institutions;
- assistance and assistance in obtaining information on the forms of interaction and cooperation within the framework of public-private partnership;
- development of plans and programs for the development of mechanisms and forms of public-private partnership.

Each region, together with Federal agencies, should define its own key industries. At the same time, the competitive advantages of a region should be modeled in application to the widest possible range of industries, taking into account the development of the global market. Ideally, the public authorities responsible for the strategic development of industry in the country would have to develop several dynamic development programs, which in turn would allow:

- identify the most suitable for the country's priority sectors or clusters, which is possible only after a survey of both the business community of the regions and the collection of statistical data on a wide range (personnel, transport, energy balance, sources of raw materials, markets);
- the distribution of industrial enterprises should take into account climatic factors, as well as the factor of the presence of the industry labor market and sales market, transport schemes of the region and its place in the Federal transport system;
- in real time, it is necessary to track changes in the above markets in order not to create an overabundance or shortage of certain product groups, types of services;
- competitive advantages or differences that would allow to distribute certain types of production to certain territories should be defined and constantly adjusted.

4. CONSLUSION

The economy of the Russian Federation currently has a fairly progressive form, as well as a complex and multi-channel system of financing investment activities corresponding to the market conditions of management. However, in terms of efficiency of application, the level of use of these sources clearly does not meet the modern requirements of the market system of management. Therefore, it is necessary to implement a science-based and strategically developed system of measures to improve the efficiency of the use of each source of funding. In the future, in our time, the functional purpose and investment role of each basic group of these sources should be clearly defined. For budget sources, as well as today, they will be mobilizing, stabilizing and stimulating functions. Own funds, in turn, will retain the function of the main source of funds for investment development of territories. And attracted and borrowed funds, in the course of strengthening the long-term nature of their use, will strengthen its influence as a priority additional source of investment resources for the development and improvement of production. The investment impact of budget sources should remain consistently high, determining and orienting in the future. First of all, this is due to the innovative and social orientation of the economic policy of the Russian Federation, as well as their organizing and stimulating role in ensuring sustainable economic development. Along with this, the investment effect of budgetary resources may increase, especially at the expense of funds attracted under the guarantee of the territorial governments. The active use of borrowed and borrowed resources is of fundamental importance for economic development. In the future, the investment impact of attracted and borrowed financial resources on the growth of fixed capital in the economy should be steadily increasing. Basically, this applies to commercial investment lending, which, along with the budget, will be one of the major and significant sources of financing for investment activities. At the same time, gradually, with the stabilization of economic relations, priority will be given to medium-term and long-term loans. As potential sources of financial resources for investment lending can be considered, first of all, the funds of Russian banks, insurance and investment companies, such necessary - foreign investments. However, in order for the use of these resources to become strictly investment-oriented, it is necessary to have a progressive legislative framework that would clearly regulate the possibility and procedure for such operations, as well as ensure the safety and repayment of credit resources. At the same time, it is necessary to provide active tax incentives for the use of these resources in investment activities, as well as to form a progressive mechanism for involving financial resources in the investment process and ensuring their effective use.

Thus, in order to improve the efficiency of mechanisms for attracting foreign investment in the country, it is necessary to take a number of measures:

- improving the investment climate and increasing public investment in infrastructure;
- removal of political and economic barriers to foreign investors;
- development of the program of complex development of territories (economic justification of expediency of development of this or that branch);
- increasing economic independence of the subjects of the Russian Federation;
- formulation of priority areas of public investment on an annual basis;
- establishment of clear criteria for assessing the effectiveness of the use of Federal funds;
- professional development of personnel;
- stimulating innovative development;
- improvement of the Federal legislation regulating the conditions of public-private partnership.

For the process of increasing investment activity to gain further momentum, business needs real support from the Federal authorities, providing a set of measures aimed at ensuring that the participation of entrepreneurs in long-term investment projects is guaranteed to be economically profitable. According to the world experience, public-private partnership is the most effective form of partnership between public authorities and private business representatives. The formation of an effective mechanism, tools and forms of public-private partnership helps to attract potential investors in infrastructure projects, including social value. In conclusion, I would like to note that many countries face a huge task of economic modernization, which is important to solve in the near future, without this it is impossible to further development and effective functioning. To do this, it is necessary to carry out significant reforms that affect the mechanisms of attracting not only public funds and foreign investments, but also non-state financing of investment activities, including with the participation of public-private partnerships. Without this, economic growth is impossible. We believe that in the future, as the state policy and investment climate change, the role and effectiveness of mechanisms for attracting foreign investment will change. It is foreign investment that should contribute to the development of the country, therefore, the growth of the level and quality of life of the population.

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A SURVEY STUDY ABOUT PROFESSIONAL FORENSIC ACCOUNTING AND ITS FEASIBILITY IN AZERBAIJAN

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ABSTRACT

As there has been an improvement on any other scientific field it does so on accounting sphere as well. We can see the same impact on the methods of uncovering the international accounting frauds. The latest developments have a great role on changing the effectiveness of the methods over detecting the accounting frauds. The insufficiency of traditional methods has brought about the studies for the new methods for further improvements on uncovering techniques for accounting frauds. The well-known financial scandals in the international ground that we faced (like Enron, Worldcom, Parmalat) has affected the trust towards capital markets badly. Because these scandals occurred due to the lack of audit facilities, the reputation of audit and assurance engagements were besmirched too. As the fraudulent acts are the major reasons for scandals, this led to need for new studies in accounting and audit. On the light of all these events, the Forensic Accounting has been arisen in the USA. Hence, the Forensic Accounting became the major science field in enriching the methods of struggling with uncovering and preventing the fraudulent acts in accounting. This study aimed to determine the awareness and the level of knowledge of Azerbaijani academicians about forensic accounting. The research includes accounting and finance lecturing academicians of miscellaneous universities in Azerbaijan. According to the results of the survey the forensic accounting is not known much by academicians, however, they expressed they would like it to be added to curriculum. Moreover, it is determined that academicians willing to see fraud, bribery and corruption titles in the content of forensic accounting related chapters.

Keywords: *Education of Forensic Accounting, Forensic Accounting, Profession of Forensic Accounting*

1. INTRODUCTION

The basic scope of facility of forensic accountants is composed of fraudulent and illegal operations. Beside these two targets, forensic accounting may functionize as a court supportive or give testimony as an expert authority for the relevant trials. One of the factors that triggered forensic accounting to emerge is the improvements in technology. On the light of technological improvements, as some professions come along so the others may disappear. As the fast changes and improvements in technology and communication bring about positive results, these may facilitate the commitment of complex crimes and high level aggravated fraud, too. Since the current systems were not sufficient to solve these sort of crimes, it necessitated the creation of new professional area and systems. Forensic accounting is the one of these proficiencies. Some of those developed countries, the USA particularly, that understand the importance of forensic accounting have been cultivating professional experts by fulfilling some needed infrastructure facilities. Leaning on the truth that there is not any work on this sphere in Azerbaijan, in this study the level of forensic knowledge of various accounting professors in

universities were measured. At the same time, the views of those lecturers about the scope of topics that considered to be added to curriculum were asked. At the end, there were some suggestions to related people. In the following parts of the study the necessity of forensic accounting was explained and the literature in this field was analyzed. In the last part all data had been undergone analyzes and results were prepared accordingly.

2. FORENSIC ACCOUNTING AND ITS NECESSITY

Since 1980, especially in western countries the reasons for the need for forensic accounting were the increase in numbers of applications on court, the complexity in trade operations, the raise in number of illegal acts of workers in companies and the difficulties of struggling with them, the failures that most of companies come across, and the courts need for experts support. [Bozkurt, 2000: 56].

Accountants work in three different channels on behalf of battling with these issues. These channels are; [Elitaş, 2012: 53];

- Consulting support for courts,
- Witness of experts,
- Audit of fraud/Investigating Accounting

As forensic accounting is considered to be one of the professional branch of accounting, its occurrence is due to the following factors; [Bozkurt, 2000: 56-57]:

- Trade operations have gradually become more complex. Thus, the number of litigations due to these reasons increased seriously.
- In societies, the problems in relationship between individuals and organizations have increased.
- The illegal acts and corruptions proliferated and both detection and protection of them have become rather difficult.
- The number of failed companies increased and these augmentations started to seem doubtful.
- Attorneys and courts needed more professional supports in trials.

The forensic accounting is the science field that in order to reveal the truth, by using its unique research, interrogation, and analysis techniques via the help of psychology and criminology, deals with the trials which transferred to court or has not transferred yet, but the major part of issue will probably be the conflict due to accounting related subjects. [Gülten, 2010: 312]. As the most general definition; forensic accounting can be defined as a type of service which provides a solution in a scope of principles, concepts and techniques of accounting, audit and law for legal, financial and social problems. [Elitaş, 2012: 54]. The number of internet scams and cyber criminals have increased, hence, need for the high level of securities addressed to these sort of crimes increased as well. The needed qualities on behalf of carrying out such prosecutions are of importance to the professional accountants. Most of forensic accountants who are at the beginning of their career come across the computer based problems, as the internet and e-trade have improved. [Pazarçeviren, 2005: 3]. In the past, managers or shareholders used to resort to forensic accountants just when they felt any probability of counterfeiting. Nowadays, however, American businessmen call on forensic accountants as an active fraud controlling way. Especially, the last company scandals (Enron, Worldcom, Adelphia, Xerox and etc.) raised the importance of audit and therefore the responsibilities of auditors. Fraudulent acts damage not only the owners and shareholders, they also wreak havoc to the staff, financial institutions, state and audit companies. Some malicious people can manipulate the figures and numbers easily while drawing up statement of financial position, preparing the ledgers and invoices. [Pazarçeviren, 2005: 2].

The subjects that belong to the scope of forensic accounting; lawsuits of conflict; lawsuits of personal action or objections to claimed debts; lawsuits that necessitate the arbitration; courts of mediation and fortification; joint ventures, transformation and liquidation, evaluation of firms; organizational analysis; equity determination lawsuits; accounting-finance analysis; partnership and shareholder lawsuits; fold-up of work, workout, and lay-off lawsuits; business/subcontractor fraud investigation and bribery; the lawsuits that belong to insurance coverage like traffic accidents, fire, and flood; financial dispute through the divorce cases; damage down to folding of enterprises and professional neglecting and so forth could be listed [Bekçioğlu, Coşkun ve Gümüş, 2013: 6]. Forensic accounting, besides, especially supporting the courts, can give a service in a various subjects. Those activities that might belong to the service frame of forensic accountants are; company evaluation, job neglecting, determination and protection of insurance operations and illegal acts [Grippo, 2003: 4]. Forensic accounting and its education, is respected sufficiently, in many developed countries, especially in the USA. By receiving the international organizations` and universities aid some necessary seminars and trainings are held on behalf of it. Meanwhile, in the outstanding countries the forensic accounting found a legislative grounds. The less developed and developing countries should follow the suit and integrate the same educations in order to boost up to the desired level. Of course, the major duty falls on shoulders of lecturers if they want to catch up with the forensic accounting perception level of the developed countries.

3. LITERATURE OVERVIEW

Bozkurt (2000), studied on his paper the presentation of forensic accounting in Turkey as a completely new sub- branch in accounting science. As a result, he tried to delineate the frames and coverage of forensic accounting, and reasons for need of this profession in Turkey. The crucial point in his study was the part where he revealed the huge gap of unsatisfied demand for this new profession in Turkey. Finally, in his study he showed how systematically Turkey ought to gain this profession through being organized ahead of time. Carnes and Gierlasinski (2001), in their study stressed on the forensic accounting skills, figured out the demand and supply status on accounting education. In conclusion, they concluded that the accounting service demanders expect the suppliers to be more proficient on detecting the frauds, and besides wanted the universities to release the coinciding students with these qualities. Rezaee, Crumbley, Larry and Elmore (2004), in their papers gathered the views of forensic accounting related academicians` and practitioners`. As a result of this study, majority of academicians and practitioners are optimistic about the future status of interest and demand in forensic accounting. Respondents of both sides in questionnaire see the accounting education beneficial and adequate for accounting profession. Kaya (2005), did a research on forensic accounting proficiency in accounting profession and necessity from point of Turkey. According to the result of this study it is possible to diminish the number of incurred losses due to the fraudulent and illegal acts in companies by the current circumstances of forensic accounting in Turkey.
Pazarçeviren (2005), has given the information about the frame and features of forensic accounting. In conclusion, the writer pointed out to the difference between the independent auditors, internal auditors (controllers), and forensic accountants. Smith and Crumbley (2009), did a research in order to figure out the best pedagogical approach to improve the curriculum of forensic accounting. As a result of this study, they revealed that there was no any scientific responds to the given question, but few philosophical beliefs about it. Toraman, Abdioğlu and İşgüden (2009), put the light on the forensic accounting from point of view of preventing the money laundering crime. According to the result, while struggling with and concluding the crime the support of technical knowledge and skills of forensic accountants that they provided were indispensable and valuable. Gülten (2010), examined the forensic accounting concept from the point of view of the law.

As a result, the writer concluded that though it was just known in Turkey, the forensic accounting that is prevalent in the USA, Canada and European Union countries, would partially contribute to trials that are slackened due to the lack of expertise and would accelerate the legislation processes overall. Elitaş, Karakoç and Görgülü (2011), in their study aimed to determine the awareness of university lecturers about forensic accounting. They came to result where it shows the lecturers in Turkey strongly believe there is proper grounds for application of forensic accounting, however, there is a need for organizations that direct the forensic accounting profession through seminars, trainings, publishing and other means. At the same time, they noted that in order for the universities to become successful in the long run, the high educational institutions should have changed the current curriculum. Pehlivan and Dursun (2012), have conducted a survey work where they tried to figure out the point of the academicians` in Turkey towards the education of forensic accounting. They concluded that there was no sufficient educational infrastructure for forensic accounting, moreover, the active lecturers on accounting were reluctant about adding the forensic accounting to accounting curriculum. Bekçioğlu, Coşkun and Gümüş (2013), in their studies have touched on the use of forensic accounting as a preventing instrument the fraud and illegal act in companies. Consequently, the cultivation, organization and preparing the legislative grounds for forensic accountants on battling with fraudulent and illegal acts were considered necessary. Kurnaz, Serçemeli and Ibadov (2014), conducted a questionnaire in order to detect the point of view of Azerbaijani academicians towards forensic accounting education. As a conclusion, it is shown that there is not sufficient educational infrastructure in Azerbaijani universities, and lecturers are reluctant about adding the forensic accounting to accounting curriculum. Özdemir and Yıldırım (2017), made inquiry via questionnaire on the view of financial consulters, attorneys and judges about the tax lawsuits and forensic accounting relationship. In the end, the meaningful correlations between the service year, profession and age variables have been determined. Çayır and Akın (2018), have analyzed the businesses management frauds from both theoretical and practical side. In the study, they had been referred to forensic accounting, audit of fraud and managerial tricks titles. Moreover, therein study it is noted that in companies the frauds had been done by the professionals and could have been revealed by only professional forensic accountants. As a result, the data related to fraudulent files that had been committed in Burdur and Isparta cities in Turkey were analyzed in detail. In the end, the difference of this study, apart from the others, is to do more comprehensive research on view of academicians in Azerbaijan on forensic accounting. Another important point that distinguishes this study, is to reveal to what extent the view of academicians in Azerbaijan towards forensic accounting has changed since the last study in 2014.

4. SCOPE AND THE METHOD OF STUDY

This study covers academicians who work in accounting and finance departments of various universities in Azerbaijan. Approximately, there are 45 academicians in accounting and finance branch in Azerbaijan. Therefore the population of the study settled as 45. Via face to face meeting the questionnaire was carried out with all these people. There was not random choice among target population, in contrast, the target was the entire mass. Nevertheless, despite the all efforts, feedback had been gotten only from 28 people. And this number corresponds to %62 of feedback ratio. While preparing the questionnaire the previous studies and particularly Pehlivan`s (2010) study was taken into account. The questionnaire is composed of three parts. The first part includes the questions that reveal the demographic features of respondents, second part was designed to determine the demand and interest for forensic account education, and finally on the third part the topics to be included in the forensic accounting education were listed and respondents were asked to put their answers on Likert scale according the importance level from 1 to 5.

The numbers stand for the following meanings (1 = very unimportant, 2 = unimportant, 3 = neither important nor unimportant 4 = important, 5 = very important). The data that were received from the given questionnaire were processed and analyzed on Statistical Package for Social Science for Windows (SPSS 23,0).

5. FINDINGS AND ANALYSIS OF STUDY

In this part of the study the findings of the study are analyzed.

5.1. Reliability Analysis

The internal consistency coefficient of scale that indexed to determine the views of respondents about the topics to be included in the education of (Cronbach's Alpha) is 0.83. It stands to reason the scale is highly reliable for social sciences sphere.

5.2. Analysis of Demographic Features

Within the frame of the research 28 academicians took part in study. Among the respondents nearly % 68 are men and % 75 are graduate of doctorate. On the other hand, % 64 of the participants either have doctorate or still have ongoing doctorate program. It is obvious on the table 1 that the majority of academicians are aged between 26-35. From point of job practice; the half (%50.0) of the academicians have 6 to 10 years of experience.

Table 1: Demographic data about participants

		Frequency	**Percentage**
Gender	Men	19	67.9
	Women	9	32.1
Educational Status	High school	0	0.0
	Graduate	7	25.0
	Doctorate	21	75.0
Status	Professor	2	7.1
	Associate Professor	4	14.3
	Assistant Professor	18	64.3
	Research Assistants	4	14.3
Age	18 – 25	2	7.1
	26 – 35	12	42.9
	36 – 45	10	35.7
	46 – 55	3	10.7
	56 and above	1	3.6
Job experience	Less than 5 years	9	32.1
	6 – 10 years	14	50.0
	11 – 15 years	3	10.7
	16 – 20 years	1	3.6
	Above 20 years	1	3.6

The Table 2 below shows us the frequency and percentage range of views of academicians about the lessons related to forensic accounting.

Table 2: The Frequency and Percentage range of views of academicians about the topics related to forensic accounting education

No	Views	Yes (%)	No (%)
1.	Is the audit is given as a subject in your university's academic program?	39.3	60.7
2.	Do you think that accounting curriculum is sufficient?	64.3	35.7
3.	Does accounting curriculum need a drastic reform?	42.9	57.1
4.	Have you got any information about forensic sciences?	46,4	53,6
5.	Have you got any information about forensic accounting?	46.4	53.6
6.	Is there any separate forensic accounting subject in your current curriculum?	3.6	96.4
7.	Do you feel any need to put the separate forensic accounting subject in curriculum?	67.9	32.1
8.	Do you have any thought to integrate the forensic accounting education into your own institutional curriculum?	57.1	42.9

As it can be seen on the Table 2, the %61 of participants noted that they do not have the audit lesson. On the other hand, %64 of academicians are satisfied with the accounting curriculum, however, %36 are not. Notwithstanding, the %57 of academic participants think that the curriculum does not require that much serious reforms. For the questions number 4 and 5, %54 of respondents answered negatively. Namely, above the half of academicians have not any information about the forensic accounting overall. Therefore, according to this result, to see the lesson like forensic accounting in the curriculum cannot be expected. The answer of respondents to the question number 6 is a bit supportive to the previous one. In the given Table 2, on the one hand the dominant percentage, %96, say that they do not have the lesson like forensic accounting or related, on the other hand the promising figure like %68 of the same mass believe that the curriculum should have concluded such lesson. Meanwhile, %57 of respondents think that education of forensic accounting should be the part of institutional curriculum. On the other parts of the questionnaire the evaluations of participants on the related questions are so: Those %80 of academicians who have audit subject in their program have never given audit lecture, and %20 used to lecture in the past times. %68 of participants who affirmatively support the view that there must be forensic accounting in the curriculum, also stressed that the relevant institutions are not on the required level yet, however, for the beginning forensic accounting could be added as a separate chapter within audit books. "On what level should forensic accounting be given as a separate class by realizing the necessities like getting the support from the organizations, providing the lesson material, improving the students` interest?" Academicians answered to this question by noting that the forensic accounting should be given on master and doctorate program, %86 an 14 % respectively. So, the majority of participants think that forensic accounting is the class that should be given in the post bachelor education.

5.3. The evaluation of views of participants about the content of forensic accounting education

The Table 3 below shows us the arithmetic mean and standard deviation numbers of view of academicians about the topics that should be concluded in forensic accounting education. Not responded topics are not the part of the evaluation.

Table 3: Arithmetic mean and standard deviation figures according to the importance of topics of Forensic Accounting

No	Expressions	X	SS
1.	Professional career on forensic accounting field	2.50	1.213
2.	Professional organizations that support the forensic accounting	2.15	1.206
3.	Professional standards on forensic accounting	3.21	1.548
4.	Analytical review methods	3.00	1.579
5.	The reliability and privacy of knowledge	4.03	0.794
6.	The techniques of testimony and witnessing of expert	2.86	1.331
7.	The techniques of lawsuit consulting	3.00	1.167
8.	Evidence gathering rules	3.14	1.282
9.	Rules about the trials and cross inquiry techniques	3.07	1.532
10.	Financial reporting standards and principles	3.07	1.485
11.	Financial reporting and analysis	3.36	1.650
12.	Theory and methodology of fraud audit	3.85	1.432
13.	Audit standards against the fraud	3.79	1.263
14.	Determinations of fraud and deterrence programs	3.71	1.205
15.	Type of frauds	3.79	1.251
16.	Factors of fraud: oppression. opportunity and rationalization	3.79	1.477
17.	Education for preventing a fraud	3.71	1.437
18.	Controls directed to preventing a fraud	3.85	1.406
19.	Experience on preventing fraud	3.85	1.167
20.	Knowledge about law system	2.50	0.941
21.	Evaluation of internal control	2.50	0.941
22.	Manipulation of related parties	2.31	1.393
23.	Criminology, economic crimes, and crimes committed by white-collars	2.93	1.269
24.	Organizational governance	2.71	1.204
25.	Investigation of bribery and illegal acts	4.34	0.716
26.	Cybercrimes and fraud through computerization	3.79	1.262

According to the Table 3, the expression with the biggest arithmetic mean is “Investigation of bribery and illegal acts” with 4.34. Being more precise, academicians see the investigations on bribery and illegal crimes as the most important topic in forensic accounting. “The reliability and privacy of knowledge” is following next with 4.03 average unit. It leads us to say that participants consider the reliability and privacy of both financial and non-financial knowledge vital for the organizations. Moreover, it is obvious in the Table 3 that respectively the topics 12, 18, and 19 with 3.85 arithmetic mean value are also important topics that academicians would like to see in the curriculum. The common feature of those topics, as it stands to reason, is being related to fraud. The less important topic according to participants is the “Professional organizations that support the forensic accounting” with the average 2.15. However, this probably might be due to the lack of professional institutions on this sphere. The second less important topic is “Manipulation of related parties”, 2.31. Finally third less important expression is “Professional career on forensic accounting field”. The most probable reason for the latter with 2.50 average point can be seen as the low number of experienced forensic accountants since it is a new field.

6. CONCLUSION

Due to various reasons both accounting and audit professions undergo some changes. In order to be successful the accountants and auditors should keep up with the current conditions and renew themselves accordingly. Because the scope of activity of these professions is extending fast and gradually. Consequently, new types of professions occurred in these fields. Forensic accounting is the one among them. By using their investigating and analyzing skills, the owners of this profession try to reveal the fraudulent and illegal acts committed by very professional and in most cases educated people. In Azerbaijan as in many other spheres, there are improvements in economy as well. So, in order to meet the above-mentioned changes the infrastructure should boost up to required level hence, skilled professionals must be cultivated. Otherwise, detection of financial crimes will be too difficult. Thus, for revealing such crimes forensic accountants seem to be a must. Forensic accounting and its education are considered as important by most developed countries. Unfortunately, this is not even at the project-level of developing and less developed countries. Study concludes that much less the forensic accounting is given as a lesson at the universities or in any other educational institution, the majority of academicians are not informed about the existence of forensic accounting. However, the respondent academicians deem the forensic accounting important to be added to curriculum of accounting education, particularly to the post-bachelor level. The topics that the academicians see as important cover fraud, bribery and corruption. For improving the forensic accounting profession in Azerbaijan; it has to be as a mandatory lesson in related faculties of universities, the global changes should be kept abreast and required training and seminars should be carried out. In fact, the relevant infrastructure should be settled and this issue need to be granted legal status. Besides, various groups should support the forensic accounting, especially academic environment.

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CREATION OF ORDINARY MARKET INSTITUTIONS AND POTENTIAL OF AZERBAIJAN ECONOMY FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

The article deals with the Azerbaijan Republic' potential of developing with the support of financial intermediary institutions. There are many ordinary steps for realization of this goal. The aim is to analyze the mechanisms of stimulating creation of ordinary financial intermediaries and supplement public finance with private capital. Every country' sustainable development requires resting on long history proven basics-free entrepreneurship, banking industry, commodity and stock exchanges. Capital scarce emerging market countries need more market-oriented institutions for converting people' income into investment through saving. Low level of share of market capitalization in GDP, high share of prime working and mature working age population display potential of unused savings of people. Stock market, mutual funds, pension funds, mortgage associations may attract free disposable money into financial circle and resolve multi-purpose targets. The economy will get money resources requiring effective use, the people will have current and future rewards as dividends and growth in pensions. Development of financial institutions will contribute for restructuring of the economy into efficiently functioning mechanism and attract foreign direct and portfolio investments. The bank credit possibilities for economic development has exhausted itself. This explains the necessity of forming these institutions for future sustainable development at after-oil period of Azerbaijan. The creation of discussed mechanisms in the article in short period requires regulation and stimulation by strong tax and finance incentives. The coordinated strategy to improve and consolidate the work of legislative and executive power in Azerbaijan in the direction of creation and development of market-oriented financial intermediary institutions may change Azerbaijan' oil-dominated economy into a developed market economy.

Keywords: *financial intermediary institutions, market capitalization, stock market, pension funds, mutual funds, savings, tax and finance incentives, Azerbaijan economy*

1. INTRODUCTION

After collapse of the Soviet Union emerging independent republics switched from the way of planned economy into a free market economy road. The road required continual reforms of creating market economy elements and institutions from the old non-flexible system elements. In Azerbaijan within a short historical period in the result of the reforms, significant results were achieved in the fields of socio-economic development and integration into the world economic system. Joint exploitation of oil reserves with transnational companies involved foreign capital into the republic. High oil revenues had significant impact on large-scale investment in infrastructure along with rapid diversification of the economy. Oil and gas was central to Azerbaijan's economy. "During the oil price boom (2006-14) hydrocarbon (HC) activity accounted for three-quarters of GDP and government income, and 90 percent of exports." (IMF, p.4) However high dependence on the volatile oil sector adversely affected by price fluctuations. The downward trend of prices in 2014 had negative effects on Azerbaijan economy and banking sector. The Central Bank of Azerbaijan Republic for saving foreign currency reserves undertook a 25 percent first devaluation in February 2015 and a second 32 percent devaluation in December 2015, and choose a managed floating exchange rate regime.

The depreciation of manat against USD had decreased GDP in USD in overall and per capita terms. The same pattern is observed in GNI of Azerbaijan. The perspective of Azerbaijan rising to high end of the level of upper-middle income country (12055 USD) became more complicated.

Table 1: GDP and GNI of Azerbaijan ("Azerbaijan in figures 2018" p. 199; World Bank data)

	2013	*2014*	*2015*	*2016*	*2017*
GDP mln. AZN	*58 182,0*	*59 014,1*	*54 380,0*	*60 425,2*	*70 135,1*
GDP mln. USD	*74 164,4*	*75 234,7*	*52 996,8*	*37 862,8*	*40 750,2*
Per capita AZN	*6 258,3*	*6 268,0*	*5 706,6*	*6 269,6*	*7 205,0*
Per capita USD	*7 977,4*	*7 990,8*	*5 561,5*	*3 928,6*	*4 186,3*
GNI per capita, Atlas method USD	*7450*	*7700*	*6550*	*4760*	*4080*

The Central Bank of Azerbaijan through tightened monetary policy had addressed inflation and supported the currency. Though these adequate policies had helped to overcome the challenge, the lack of versatility in reforms for creating full set of financial infrastructure of market economy is a main hinder in the way for full utility of potential for the growth of the economy.

2. FINANCIAL INFRASTRUCTURE IS AN ATTRIBUTE OF MARKET ECONOMY

It is common knowledge that every country' sustainable development requires resting on long history proven basics-free entrepreneurship, banking industry, commodity and stock exchanges. A market economy for efficient functioning requires along with free entrepreneurship a financial mechanism stimulating optimal ratio of consumption and saving, and converting private savings into productive investments. Without such financial mechanism, the efforts to diversify economy and boost sustainable economic growth are half-measures resulting in development of low productivity sectors. The economic reforms must account for all sides of economic development, mobilize labor and finance resources. Private capital scarce emerging market countries need more market-oriented institutions for converting people' income into investment through saving.

2.1. Income and savings of the people

Table 2: Income, expenditure, savings of population (million AZN) ("Azerbaijan in figures 2018" p. 172; p. 259)

	2013	*2014*	*2015*	*2016*	*2017*
Income of the population	*37 562,0*	*39 472,2*	*41 744,8*	*45 395,1*	*49 162,9*
Expenditures	*28 021,2*	*30 799,6*	*34 963,4*	*39 775,0*	*45 152,5*
Saving	*9 540,8*	*8 672,6*	*6 781,4*	*5 620,1*	*4 010,4*
Bank savings of population	*6 395,8*	*7 188,4*	*9 473,9*	*7 448,7*	*7 561,2*
of which					
in national currency	*3 888,3*	*4 422,4*	*1 420,2*	*1 517,3*	*2 532,9*
in per cent to total	*60,8*	*61,5*	*15,0*	*20,4*	*33,5*
in foreign currency	*2 507,5*	*2 766,0*	*8 053,7*	*5 931,4*	*5 028,3*
in per cent to total	*39,2*	*38,5*	*85,0*	*79,6*	*66,5*
Ratio of savings to previous year, per cent	*125,1*	*112,4*	*131,8*	*78,6*	*101,5*

Table 2 shows that, despite the growth in household incomes, a stronger increase in expenditures had decreased savings. However, there is an increase in bank savings (increase-decrease-increase shape) and the amount of bank savings is more than savings. This contradictory situation explains that public confidence in the financial sector is not exhausted and the people converted savings at hand into the bank savings.

2.2. Road of savings to investments

In the situation described above, the main task is to convert these savings into productive investments and increase income from the investments and savings of people. For the implementation of this task, a financial infrastructure with incumbent financial intermediaries is a necessary attribute of the economy. Ross Levine and Sara Zervos empirically had found "a strong, positive link between financial development and economic growth and the results suggest that financial factors are an integral part of the growth process." (Levine, Zervos, p. 558). The financial factors imply existence and activity of financial intermediaries. Therefore, development of ordinary institutions of market economy, as stock markets, mutual funds, pension funds, mortgage associations in Azerbaijan has great importance.

2.2.1. Market capitalization

In Azerbaijan, the share of market capitalization in GDP is low. There are no on a regular basis published statistical figures about Azerbaijan' stock market capitalization. According to data of IndexMundi market capitalization of Azerbaijan in 1999 was 3.22 mln. USD. (IndexMundi). Azerbaijan' market capitalization reflected as 1.973 mln. USD (as of 07/2017) by the National depository center of the Azerbaijan Republic on the "AECSD profile 2017" prepared by The Association of Eurasian Central Securities Depositories (AECSD Profile 2017, p.6). GDP of Azerbaijan in 1999 was 4.477,5 mln. USD, in 2017 28.564,8 mln. USD. Accordingly, market capitalization to GDP ratio was 0.07% in 1999 and 6.9% in 2017. Despite this advancement during 18 years in the market capitalization, the level of it is not sufficient for the required scale of development.

2.2.2. Development of stock market

In "Azerbaijan 2020: Look into the future" Concept of development provides for "systemic measures in order to limit the disorganized market of securities and increase the attractiveness of the market for investors, and the legislation that regulates the activities of the market's professional participants and mechanisms of overseeing them" (p.14). There is great need for increasing the rate of market capitalization in the country's economy and extended use of investment institutions activities directed at the financing of viable economic projects through the stock market. For a stock market development is needed a stock market index. It is a measurement of a section of the stock market and used to compare the return on investments. For creating investing institutions, this index is an important element. The complex stock market institution functioning is based on supply and demand. For the liquidity of a stock market, either side must be in sufficient volume. For determining of demand side level, must be created the organized market of securities. However, for the formation of constructive demand for investments tools creation of mutual funds, pension funds, and mortgage associations is a necessary step. These funds may attract free disposable money into financial circle and resolve multi-purpose targets. The economy will have choice to get money resources requiring effective use; the people will have current and future rewards as dividends, interests and growth in pensions. Development of financial institutions will contribute for restructuring of the economy into efficiently functioning mechanism and attract foreign direct and portfolio investments.

2.2.3. The role of banks

Monopoly position of the banks in the credit market eliminated competition and their contribution possibilities for economic development has exhausted itself.

Table 3: Provision with credit of economy (end of year, Million AZN) ("Azerbaijan in figures 2018" p. 259)

	2013	*2014*	*2015*	*2016*	*2017*
Total credit to economy	*15 423,0*	*18 542,6*	*21 730,4*	*16 444,6*	*11 757,8*
of which					
short-term	*3 335,5*	*3 931,3*	*5 297,3*	*3 478,0*	*2 101,3*
in per cent to total	*21,6*	*21,2*	*24,4*	*21,1*	*17,9*
long-term	*12 087,5*	*14 611,3*	*16 433,1*	*12 966,6*	*9 656,5*
in per cent to total	*78,4*	*78,8*	*75,6*	*78,9*	*82,1*

This explains the necessity of forming new for Azerbaijan but old for free market economy countries financial intermediary institutions for future sustainable development at a post-oil period of Azerbaijan.

2.2.4. Financial intermediaries

Historically emerged financial intermediaries are being perfected with the development of market economy and changing economic environment. However, Azerbaijan lacks long period of development for traditional market institutions. Therefore, the government has to play leading role in the creation and stimulation of these institutes by tax breaks and financial injection where they are necessary.

2.2.4.1. Pension funds

Life-cycle hypothesis, developed by Franco Modigliani and Richard Brumberg states that individuals seek to smooth consumption over the course of a lifetime – borrowing in times of low-income and saving during periods of high income. The population tend to save for future periods. The pension funds may be very attractive vehicle for savings. Azerbaijan implements pension system reform aimed at linking benefits almost entirely to individual retirement accounts. Retirement ages and contribution periods are gradually being increased. Annual pension fund deficits (some 3 percent of GDP) should gradually be eliminated. (IMF, p.14). Creation of private pension funds may render pensions before formal retirement age. Now in Azerbaijan about 1.3 million person receive pensions and annual amount of these payments is about 3.3 billion AZN. At least the private savings for pension age may be about the same amount. In 1917 share of the prime working age population (25 to 54 years old) and mature working age population (55 to 64 years old) were 45.6% and 10.6% accordingly. As a determinant of savings it is normal figure for the potential of saving growth. And financial incentives as tax breaks can stimulate savings of these people to the fund. Tax exemtion of savings to the pension fund and future benefits may attract population' interest to savings. The economy will have free finance resource for investments. The Tax Code of Azerbaijan provides for "insurance premiums paid by employer to insurers of the Republic of Azerbaijan on accumulative life insurance and pension insurance under contract concluded for not less than 3 years, any amounts paid to the insured and beneficiary after 3 years term from the moment of entering the accumulative life insurance and pension insurance contract into effect shall not be subject to income tax" (The Tax Code article102.1.8). However, tax breaks for the pension funds activities must be clear-cut for attracting savings and investing. For preventing misuse of fund resources must be determined by legislation the management rewards as percentage of revenues from investments.

2.2.4.2. Investment funds

An open-end investment company-a mutual fund pools money together from a large number of investors and uses that money to buy stocks, bonds and other securities. The creation of mutual funds may attract the population' free financial resources and direct them into viable projects. For the beginning, the government may temporarily participate as a partner in mutual funds activities to supply a source capital. As far as the mutual fund will begin to operate self-dependent, the government takes away its share and the mutual fund becomes a private one. For the stimulation of creation and development of mutual funds the goverment may temporarily grant tax breaks for the profit of a fund and the dividends of investors. According to the Tax Code of Azerbaijan "the annual interest income paid on deposits of individuals by local banks and branches of foreign banks in Azerbaijan, as well as dividends on investment securities, discounting (difference caused by lower placement of bonds than its nominal value) and interest income paid by issuer - within 7 -year period beginning from 1 February 2016 shall not be subject to income tax"(The Tax Code article 102.1.22). However, the profit of investment funds need exemption from taxes during a certain period, too. The profits by the enterprises using the investment fund resources are being taxed for tax on profit and the investment funds receive dividends after profit tax. Therefore, the income taxed once may be exemted from second time tax.

3. CONCLUSIONS

The coordinated strategy to improve and consolidate the work of legislative and executive power in Azerbaijan in the direction of creation and development of market-oriented financial intermediary institutions may change Azerbaijan' oil-dominated economy into a developed market economy. The creation of discussed here financial mechanisms in a short period requires regulation and stimulation by strong tax and finance incentives. At first, must be created the demand side for the financial resources. This includes creation of organized stock market and a stock market index. The growth of listed companies will contribute to the market capitalization. The development of stock market will require and attract the free private capital. This private capital may be organized as pension funds and investment funds. For the formation of demand side for financial resources, the government may effect tax stimulation and financial participation:

- Temporarily exemption from profit tax the pension and investment funds revenues;
- Temporarily participation of the government as a partner in the activity of pension and investment funds;
- Legislatively determination of the managers rewards of funds as percentage of revenues.
- The pensions from the pension funds may be received earlier the retirement age.

At second, for stimulating of supply side for the financial resources the tax exemption may be of great importance:

- Allocations from wage and salaries into a pension fund may be exempted from income tax;
- Received pensions from a pension fund may be exempted from income tax.

Proof of this article' claims is the history of free market economy countries.

After creating full set of free market institutions in Azerbaijan next step will be assuring of their more efficient functioning.

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THE ASPECTS OF ECONOMIC SECURITY: BUDGET, TAX AND MONETARY

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ABSTRACT

The article points out that ensuring economic security is, first of all, the government's responsibility, since fiscal and monetary policy plays an important role in the general economic policy of the state. Therefore, in order to improve the economy, the state chooses such stimulating instruments of fiscal policy as increasing government spending, reducing taxes or their combination. When implementing a stimulating fiscal policy, a significant impact on economic growth is provided by forms of financing the state budget deficit: borrowing or issuing new money for circulation. Thus, with the increase in the volume of goods and services, the number of employees involved in the process of economic growth proportionately increases, and the income tax on workers and individuals engaged in private and small businesses should grow at a higher rate. The next major component, tax revenue is the tax on net profit of enterprises and organizations. To do this, it is necessary to stimulate the effective application of new technologies and innovations in enterprises and organizations, where it would be possible, in our opinion, to achieve a high growth rate of "net profit". The state in this direction has been pursuing a successful policy of economic development in recent years, which aims at reequipping the economy of nanotechnology and innovation.

Keywords: *macro finance, stabilization, finance, stability, economic security, financial flows, economic policy*

1. INTRODUCTION

One of the aspects of the current problems of the economy is the problem of monetary and fiscal policy of the state. It should be noted that this problem is also the main mechanism of economic security. It should be noted that in this direction the government uses fiscal and monetary policy. Sometimes not the right policy, for example, fiscal can lead to undesirable economic consequences. The importance of the complex of instruments of monetary regulation, given the underdevelopment of the financial infrastructure, is an important issue for avoiding unfavorable for the economy. Changes in aggregate demand, real GDP, employment and inflation through government revenues and expenditures. Therefore, the focus is placed on the discretionary and non-discretionary fiscal policies, stimulating and constraining and promising fiscal policies. In accordance with the economic goals, the level of development of the economy and its condition, the government of the country determines for itself the priority tasks in the sphere of fiscal and monetary policy. In this policy, the main criterion for the effectiveness of fiscal policy is the level of collection of budget revenues, liabilities, the magnitude of the budget deficit, growth rate and public debt. To fulfill these goals, macro-financial stabilization is of great importance. This is the development and implementation of balanced public policy in this area. Monetary and fiscal aspects of economic security are in modern conditions a pressing problem of economics.

2. STABILIZATION

Ensuring economic security is, first of all, the responsibility of the government, since fiscal and monetary policy plays a large role in the general economic policy of the state. The criterion shows how much of the savings in the economy is not transformed into investments and thus the country's potential is not used up [1].

Here we can talk not only about how we should protect the economy from any threats with fiscal methods. Indeed, in some cases, precisely the wrong fiscal policy can lead to undesirable economic consequences. The government's fiscal policy, given the underdevelopment of the financial infrastructure, disruptions in the mechanism of stimulating savings and investment in the real economy, in countries with market economies, continues to remain important in the complex of instruments for monetary regulation of the stability of the Azerbaijani economy. As is well known, discretionary fiscal policy is distinguished, which is a conscious means of manipulating taxes and government spending and non-discretionary fiscal policy based on the principle of operation of the so-called built-in stabilizers. Discretionary fiscal policy is an attempt by the government to prevent adverse changes in the economy of aggregate demand for GDP, employment and inflation with government revenues and expenditures. In itself, the concept of "discretionary" policy means that the state, at its discretion, changes the size of revenues (taxes, fees, etc.) and expenses, thereby trying to actively influence the evolving situation in the national economy and the monetary and financial system. There are two main types of fiscal policy: stimulating fiscal policy and restrictive or forward-looking fiscal policy. Stimulating fiscal policy, as a rule, is aimed at exceeding the budget expenditures over the revenue side. In other words, it implies an increase in the budget deficit. Stimulating fiscal policy is carried out in a period of economic recession, when the economy is declining investment activity due to aggregate demand. In order to improve the economy, the state chooses such stimulating instruments of fiscal policy as an increase in government spending, tax cuts, or a combination thereof. When conducting a stimulating fiscal policy, forms of financing the state budget deficit have a significant impact on economic growth: borrowing or issuing new money into circulation. The restraining fiscal policy is chosen by the state at the stage of economic growth in order to "sue" the economy and prevent the growing aggregate demand from inflating inflation, which, in turn, can bring the economy to the stage of an undesirable slump. When pursuing a constraining fiscal policy, the government cuts government spending, raises or combines certain taxes. Non-discretionary fiscal policy, as is well known, assumes that if the government does not take active measures to influence the economy, the built-in stabilizer can be used in the tax system, net government tax revenues (taxes minus transfer payments and receipts) increase during the economic recovery stage and decrease during a downturn, i.e. automatically changing is exactly the opposite of changing the cycle of entrepreneurial activity. In this sector, it is important to control the tax and budget burden on GDP. The fiscal burden on GDP can threaten macroeconomic stability. Here it is necessary to take into account the increase in the expenditure side of the budget. Therefore, the state in its economic policy in this expansion should look for ways to stimulate an increase in GDP. In modern conditions, one of the most important ways in this direction is the intensive development of the non-oil sector, stimulating credit policy, the development of small and medium-sized businesses, and the successful development of the agricultural sector and the services sector. Also important is the tax burden, the dynamics for tax revenues in the budget. Thus, the current tax policy in ensuring economic security in this direction should be structured so that the risk associated with the dependence of the budget on the level of tax collection can be reduced. It should be noted that the value added tax is one of the best sources for replenishing the budget. Dark GDP growth is mainly associated with an increase in production and, accordingly, with an increase in the output of goods and services that are subject to value added tax. This also requires strengthening tax discipline. In this direction, the ongoing tax policy — income tax to the budget — is also interesting. Since the increase in the volume of goods and services increases proportionally the number of workers involved in the process of economic growth and income tax on workers and individuals engaged in private and small business should grow at a higher rate. The next major component of tax revenues is a tax on the net profit of enterprises and organizations.

To do this, it is necessary to stimulate the effective use of new technologies and innovations in enterprises and organizations, where our opinion could be achieved to achieve a high dark growth in “frequent profits”. The state in this direction in recent years has been pursuing a successful policy of economic development, which is aimed at rearming the economy of nanotechnology and innovation. In accordance with the economic goals, the level of development of the economy and its state, the government determines for itself the priorities of the budget policy. One of the objectives of fiscal policy in countries with market economies is to finance those industries where private entrepreneurship and market relations do not work or work inefficiently, and also those areas require protection of interests of certain segments of society or the population as a whole. According to the tasks, the state budget is regulated. The approach to the problem of regulation of the state budget may be different. In this case, there is no concept of optimal strategy. some economists and politicians believe that the budget should be balanced annually. Others adhere to the concept of a cyclically balanced budget (the budget with either a deficit or a surplus). The main criteria for the effectiveness of fiscal policy are the level of collection of budget revenues (including taxes), the level of budget commitments, the magnitude of the budget deficit (surplus) and the rate of growth (reduction) of public debt. The place of the state in the economy is characterized by the ratio of state budget expenditures to GDP, i.e. fiscal burden, as well as the ratio of tax revenues to the budget and GDP - tax burden. The higher these ratios, the greater the role played by the state in the economy. One of the most important problems of economic security is the ongoing monetary policy. Monetary policy, based on the model of monetarism, is conducted by the Central Bank, which stabilizes the situation in the currency and money markets. These measures are for macroeconomic stability. In increasing the macroeconomic profitability of the budget has played the role of continuous improvement in the monetary sphere. Monetary policy supported the fiscal sector and macroeconomic stability. This policy has played an important role in the process of economic growth. Especially noteworthy is the economic growth that began in 1996, which for today's 2017 is of a long-term nature. The exchange rate of the national currency remained stable, strategic currency reserves remained, and economic growth continued. But the crisis in Europe has affected the rate of the national currency. In this direction, the profitability of the economy is the main indicator. In general, the situation in the money market is considered satisfactory if the value of profitability exceeds the inflation rate i:

$$P > i$$

It should be at least higher than the rate of inflation or, in the best variant, exceed inflation by 3-5%. The ratio of profitability and level of interest rates should be observed:

$$P > il > id > i$$

where: *il* - rate on loans
id - deposit rate

Savings in the economy should be structured as follows: cash, deposits, national currency, foreign currency, securities, national and foreign stocks of national companies, bonds of foreign companies, real estate and under-utilization of investments for capital investments. In modern conditions, macro-financial stabilization of the country as the main parameter of dynamic economic development is of greater importance. Especially important are key areas such as cash flow management, credit relations, inflation processes and other elements of the country's macro-financial stability. Depending on the basic tendencies of world economic relations, adequate models and mechanisms of the state fiscal policy are required, which will allow

increasing the efficiency of managing financial flows and will facilitate provision. Macro-financial stabilization of the country, its competitiveness and economic sustainability. Macro-financial stability of the country creates a real opportunity to implement large national projects, actively participate in regional and international projects, ensures successful specialization in the processes of international division of labor, strengthening in the global financial and commodity markets, etc. Considering the problems and significance of the concept of "macro-financial stabilization" it is necessary, first of all, to deal with the essence of the term "stability". "Stability" comes from the Latin word and implies the attainment of a state of the economic system that can be maintained for a long time with the help of its inherent regulatory means. Economic stabilization should not be viewed as a state, but as a strategic process, consisting in approaching economic stability. One of the founders of the classical theory A.Smith believed that stability is formed in all areas of the economy without exception. His theoretical development was that the reasons that violate economic stability can be both objective and subjective, namely: war, laziness of the nation, government [5]. Based on the above classical theories and scientific approaches, it can be noted that economic and financial equilibrium is one of the fundamental principles of stability and economic security of the state as a whole and can act as a guarantor of the country's financial stabilization. Macro-financial stabilization of the country covers the effectiveness of all factors of economic development, different elements and approaches to the state economic policy, rationality and sustainability of the basic mechanisms of the country's economic security [4]. It is worth noting that the financial stabilization and economic security of the country requires the balancing of various external and internal factors, which are accompanied by deformations of the World Economic Relations. So in the modern world, which is rapidly developing, a special place is occupied by the economic security of each state in the system of world economic relations. Economic security is directly derived from the level of economic stability, in particular, the country's system, the main element of which is financial resources. Here it is necessary to consider the definition of this concept: financial resources at the macro level are monetary funds that are formed in the process of distribution and use of GDP for a certain period of time. Financial resources at the macro level constitute the macro-financial system of the country, which needs to be managed, regulated and maintained in equilibrium, i.e. in stabilizing this system to ensure the economic security of the country as a whole. In order to ensure the financial stabilization of the country, it is necessary, first of all, to develop and implement a balanced and deep-minded state policy in this sphere. The winner of the Nobel Prize in economics, U.Vickrey, categorically opposed "the obsessive pursuit of politicians for the holy grail of a balanced budget, he said, we must strive not for a balanced labor market." This point of view of the economist can be explained by the fact that in ensuring the financial stabilization of the country one of the strategic factors is human labor, citizen labor, development of the human factor and its assessment, rational use of labor resources, labor, etc. Russian scientist A. Illarionov in the macroeconomic and financial stabilization of the country included the following factors: the critical role of macroeconomic stabilization for economic growth, the quantitative criterion of macroeconomic stabilization, the devaluation Ia rate of national currency, inflation, budget deficits, monetary and credit factors, the level of institutional reform and others. A number of other researchers have also studied the foregoing factors and challenges their impact on the country's economic security. So T. Rzhevskaya studied the problems of development of the financial system and the mechanisms of its regulation in the conditions of market transformation [6]. The author believes that in conditions of deep deformation of traditional economic processes and mechanisms in conditions of deepening market relations, the state is obliged to systematically and comprehensively address the problems of the national financial cycle, financial flows, improve the financial system of the country and the tools to regulate financial problems, consider the budget proportionality in aspect of the interaction of the financial system in the implementation

of financial policies, ensuring efficiency and dynamism of budget processes and budget system, determining priority criteria for an effective budget policy, and generally considering all these issues in the context of the national security strategy, F.Yusifov believes that in the process of budget forecasting in the country, along with such major macroeconomic indicators as gross domestic product, unemployment, dark inflation, trade balance, should also more widely use the following macroeconomic indicators: population incomes, capital dynamics italization, forecast estimates of the state of commodity markets and energy [7]. Researchers S.Andryushin and V.Kuznetsova studying the problems of the macroeconomic aspect of financial policy in the new environment, emphasize that the recent financial crisis has stimulated a variety of international theoretical and empirical research, primarily in the financial sphere [1]. They resulted in recommendations to national governments on the optimal combination of macro-financial and macroeconomic policies. The result of a combination of policies should be stabilization of long-term economic growth, the effective functioning of the financial market and adequate pricing of national assets. The authors emphasize the importance of strengthening state financial policy measures to protect public sector money from risks, improving the management of the monetary balance in the whole country, optimizing the use of acceptable levels of accepted risks of fiscal, monetary and credit relations, etc. Antropova, studying the role and importance of financial stabilization in the context of the economic security of the modern state, noted that finances are now the strongest leverage of external control in istemu security of the state [2]. A.Belyaev exploring the features of financial stabilization at the macroeconomic level, emphasizes that structural-production stabilization puts forward the antipode of "shock therapy."

3. CONCLUSION

Financial stabilization acts as a derivative element of industrial stabilization. It is assumed that an active industrial, investment, structural policy contributes to the rapid modernization of the productive forces, ensures cost reduction, quality improvement, strengthening the competitiveness of domestic products and ultimately leads to financial stabilization. Researcher Gadzhieva S.A. studying the relationship of fiscal and monetary policy in national economic development, noted the importance of respecting the financial security of the country, primarily through the scientific development of mechanisms and foreign policy of the financial and tax sphere, identifying threats to subjects and sectors of financial stability, neutralizing the influence of negative factors, ensuring the sustainability of financial development, etc. [3]. Based on the scientific thoughts and results of the above authors, it can be noted that financial stability is a complex and complex set of economic and financial processes that require a comprehensive and fundamental study, development of a balanced state policy, based on the realities and experience of global economic and financial trends, taking into account modern global problems, deformation of the world economic system and other important factors of macro-financial stability and economic safety five countries. As can be seen from the study, financial stabilization of the country covers a number of factors affecting the effective and rational management of financial flows, control over state financial resources, their optimal distribution in the context of globalization and transformation of economic and financial processes. The considered materials allow to summarize the factors influencing the financial stabilization of the country in the following sequence. Factors affecting the financial stabilization of the country internal factors: GDP; unemployment rate; state of the budget and financial system; domestic debt; GDP volume; defense spending; state budget deficit; inflation rate; balance of payments; infrastructure costs; level of development of entrepreneurship and business; reliability of the credit and banking system; volume of foreign exchange reserve. External factors: globalization of world space; trans-nationalization of economic ties; internationalization of the world economy; high concentration of financial resources; the

growing strength of international financial organizations; the intensification of the autonomy of TNCs; increasing mobility and interconnection of financial markets; a variety of international financial arrangements; increased competition between states and groups of countries; increasing the dependence of national economies on the outside world; instability of the global financial system; instability of the global banking system; consequences of global financial crises; strengthening the main currency of the world; political and legal factors; external debt. Analysis of the research materials allows us to group a number of important features and factors affecting the financial stabilization and economic security of the country: the problems of financial stabilization of the country are one of the strategic goals of state economic policy. Therefore, it is necessary to develop and implement comprehensive and systemic measures for financial stabilization and efficient use of public financial resources, it is necessary to carefully and carefully study and systematize external factors that can greatly harm the country's financial stability, the state is obliged to systematically focus on maintaining sources and internal factors financial stability of the country, to ensure the growth of GDP, improve the investment environment, business and infrastructure, entrepreneurial activity, take control of inflation processes and, as necessary, take adequate steps to reduce unemployment, monitor the rational use of public financial resources, budget allocations, etc.

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THE EVALUATION OF SMALL AND MEDIUM ENTERPRISES ROLE IN ECONOMIC DEVELOPMENT OF AZERBAIJAN

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ABSTRACT

The worldwide experience proves a special role and an importance of small and medium enterprises within the national economies. The business sector and especially the Small and Medium-sized Enterprises (SMEs) play an important role in the development of the economy and a significant contribution to the sustainable and inclusive growth. SMEs, having enormous potential in employment generation and job creation, as well as in fostering economic growth, could be considered a backbone of each country's economy. A strong and well-developed SME sector contributes significantly to export, innovation, and creation of modern entrepreneurial culture, playing at the same time a significant role in achieving prosperity in the country. The rise and development of SME's sector is undoubtedly necessary, since it is difficult to imagine the rising of overall standards of living without such development. The purpose of this research is the evaluation of the potential role of SMEs on the future economic growth and development of Azerbaijan. On this research paper the characteristics classifications and roles of SME on different national economies will be analyzed as well.

Keywords: *Importance of SMEs, Small and Medium-sized Enterprises, roles of SMEs, SMEs in Azerbaijan economy*

1. INTRODUCTION

Small and Medium Enterprises are important part of the national economies and, as such as of the world economy. SMEs contribute to employment creation, wealth creation, poverty alleviation and income generation. Usually in advanced economies SMEs constitute the overwhelming share of operating enterprises, generate more than 50% of turnover and provide two out of every three jobs in the private sector. In OECD countries, more than 99% of companies are SMEs and generate about two-thirds of GDP on average (OECD, 2009). However, SMEs in developing countries face numerous impediments, namely, lack of finance, lack of business skills and lack of operating space. In developing countries or in countries in transition, SMEs represent more than 90% of the total number of companies, but their contribution to GDP is generally quite low – in many cases less than 20% (OECD, 2009). The main weaknesses of the SME sector in general are limited access to finance, a low degree of professionalism and existing business schools, difficulties in recruiting qualified personnel, and the absence of economies of scale and it is these areas which may require special attention. By understanding the problems faced by SMEs in Azerbaijan it could be provided the necessary background to develop policies for their support. Different incentive mechanisms aiming to improve the entrepreneurial environment of Azerbaijan have been observed in the last years. Especially after the sharp down of oil prices the government aimed differentiation of economy and decrease impacts of oil price fluctuation. Improving the state's economic basis requires an economic environment where business can prosper. To strengthen and diversify the economy, policy makers and local leaders need to know the characteristics and impact of small businesses on the local economy.

Understanding the characteristics of poverty and the contribution of small businesses to economic growth of the local economy is crucial in designing specific and appropriate development policies. The targets of such policies are to improve and expand community-based capabilities and initiatives in order to assist small communities to retain and expand local small businesses. "The Strategic Roadmap for the production of consumer goods at the level of small and medium entrepreneurship" which signed by the president of country in April 2017 is developed as a part of a nationwide effort to achieve competitiveness, inclusiveness and sustainability in the economy. The main objective of the aforementioned Strategy is to ensure that small and medium entrepreneurship becomes the key enabler for sustainable economic development in Azerbaijan. Also President of Azerbaijan Ilham Aliyev has decreed to create the Agency for Development of Small and Medium-Sized Enterprises under the Ministry of Economy in December 2017. According to the decree, the Agency is a public legal entity that supports the development of small and medium-sized businesses in the country, provides a range of services to the SMEs, coordinates and regulates the services of state bodies in this field. In this research several methods were used simultaneously, including those of description, statistics, comparison, analysis, systematization and generalization. The importance of the SMEs and their role on national economies were analyzed based on various sources of information and statistics. The classification of SMEs were analyzed by the country and region based. Also using systematization and generalization methods were described the potential role of SMEs on Azerbaijan economy and positive impacts on economic development of country.

2. THE ROLE OF SMES ON NATIONAL ECONOMIES

SMEs have a considerably effective role in the development process of national economies and the protection against the negative effects of the global competition especially based on their employment facilities and their flexible structure reacting rapidly to environmental changes. In addition to that, because of their local characteristics that protect the alienation and their roles that strengthen the middle class, SMEs are also important as social perspective. Many authors reasonably consider SMEs as a backbone of the economic development and a key factor of social stability. The contribution of these companies can be summarized in a few key points, as follows:

a) Small and medium enterprises solve employment problems of the country.
b) Small and medium enterprises make a significant contribution to the GDP - of the country.
c) Small and medium enterprises provide a valuable contribution to the development of large enterprises.
d) Small and medium enterprises make a significant contribution also in export-import of the country.

Authors Scott & Bruce (1987) provided a qualitative definition for SMEs. According to these two authors, SMEs are those enterprises that have the following characteristics:

- Management is independent; usually the managers are also owners
- Capital is supplied and ownership is held by a small group of individuals
- The area of operations of such enterprises is mainly local.
- The enterprise is small when it is compared with the major units in its field.

According to the Organization for Economic Cooperation and Development (OECD, 2000), SMEs represent more than 95% of enterprises and create 60-70% of jobs. Alternatively, the United Nations Industrial Development Organization (UNIDO, 2005) calculated that SMEs account for 90% of private firms and employ 50-60% of the total labor force. SMEs act as the core of economic growth; they generate, to a greater extent, the technical innovation needed for an economy to progress.

Many new jobs come from innovation, and new discoveries bring about even more entrepreneurial adventures. The creativity of small companies is the fuel of the entrepreneurial spirit leading economic growth. A strong and well-developed SME sector significantly contributes to export, innovation, and creation of modern entrepreneurial culture, playing at the same time a significant role in achieving prosperity in the country. SMEs play a unique, active and critical role in the innovation process by their ability to invent new technological spaces and improve high technology information networks (Paul Almeida, 2004).

3. THE CLASSIFICATION AND ROLE OF SMES IN DIFFERENT ECONOMIES: COMPARISON ANALYSES OF EXAMPLE COUNTRIES

There is not a complete definition for SMEs yet. There are used different definitions on various countries, even institutions use different definition, for example the World Bank defines SMEs as enterprises of 300 employees, UNDP defines SMEs as enterprises that can employ up to 200 employees, whereas African Bank uses a threshold of SMEs 50 employees. For comparative analysis, it would be more appropriate to describe the category of small and medium-sized businesses by scheduling different countries and country groups.

3.1. European Union

According to European Commission the small and medium enterprises are classified as enterprises with fewer than 200 employees, with annual turnover of less than 50 million € and a total balance of less than 43 million €. Therefore, the number of employees is the main and the initial criterion for determining on which category is classified an enterprise according to the European Commission.

Table 1: European Union categorization of SMEs. (Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium enterprises. (2003/361/EC), Official Journal of the European Union, L 124/36, 20 May 2003)

Company Category	Employees	Turnover	Balance Sheet Total
Micro	<10	< €2 million	< €2 million
Small	<50	< €10 million	< €10 million
Medium-sized	<250	< €50 million	< €43 million

Data gathered by the European Commission suggests that SMEs constitutes 99.8% of all businesses and play a significant role in employment by employing two-thirds of the labor force in Europe. The statistics show that SMEs contribute 69% to employment growth and 66.8% to total employment.

Table 2: SMEs and large enterprises: number, employees and value added in the EU28, 2015. (Eurostat, National Statistical Offices, DIW Econ, 2017)

	Micro	Small	Medium	SME	Large	Total
Enterprises	21,256,252	1,378,702	224,647	22,959,600	44,458	23,004,059
Number	92.80%	6%	1%	99.8	0.2	100%
%						
Persons employed						
Number	40,057,408	27,503,428	23,170,352	90,731,192	45,168,732	135,899,904
%	29.50%	20.20%	17%	66.80%	33.20%	100.00%

SMEs play significant role to create value in EU countries economy. Value added by SMEs was 3,938,103 billion EUR, which constituted 57% of total value added by enterprises. However, the contribution of SMEs to GDP of individual countries varies, depending on the political and economic situation of the country concerned (Eurostat, 2017).

3.2. Turkey

SMEs play a significant role in the Turkish economy. The determining factors of a company for categorization by the government include headcount, turnover and balance sheet total, similar to the criteria of the European Union. According to Turkish legislation, small- and medium-sized enterprises are classified as 3 types: micro, small and medium companies.

Table 3: Classification of SMEs in Turkey (The Union of Chambers and Commodity Exchanges of Turkey)

Category	Employees	Turnover	Balance Sheet Total
Micro	<10	≤ 1 million TRY	≤ 1 million TRY
Small	<50	≤ 5 million TRY	≤ 5 million TRY
Medium-sized	<250	≤ 25 million TRY	≤ 25 million TRY

According to the Turkish Statistical Institute, in 2014, there were 2, 677, 00 enterprises and 99.8% of all enterprises in the country were small- and medium-sized enterprises. 73.5% of employment in the country is dependent on the SME sector. Small businesses have a contribution of 53.5 % to value added. They also account for 54.1 % of all wages and salaries, 55% of total investments, 60.1% of total export, 62% of turnover and 24% of total loans. These statistics demonstrate the importance of small- and medium-sized enterprises for the Turkish economy (Turkish, Statistical Institute, 2017)

3.3. Russia

Table 4: Classification of SMEs in Russia (European Investment Bank, Small and Medium Entrepreneurship in Russia, 2017)

	Revenue (mln EUR)	Number of employees
Micro	< 1.5	<15
Small	1.5 – 10	15 – 100
Medium	10 – 25	101 – 250

Small business has been growing in Russia, but medium-sized business declines from the 2010 to 2015 years. The government in Russia decided to double the share of SMEs in the economy by 2030, and, therefore, according to entrepreneurs, it is essential to give public service to outsourcing, limit benefits for municipal unitary enterprises and support freelancers. The Ministry of Economic Development of the Russian Federation is preparing the strategy for the development of small and medium business up to 2030. As the first version of the plan says, the number of people employed by small and medium business should grow to 40 million people (today it is 17.8 million).

3.4. Georgia

Table 5: Classification of SMEs in Georgia (Law of Georgia No. 519 of 12 June 2012, on the Georgian National Investment Agency; Tax Code of Georgia)

Definitions of micro, small and medium enterprises in Georgia				
	Employment		**Turnover**	
	Definition 1	**Definition 2 (for tax purposes only)**	**Definition 1**	**Definition 2 (for tax purposes only)**
Micro		Self-employed (no hired labour)		≤ 30,000 GEL (12,465 USD)
Small	≤ 20 employees	Self-employed (no hired labour)	≤ 500,000 GEL (207,750 USD)	≤ 100,000 GEL (41,550 USD)
Medium	≤ 100 employees		≤ 1,500000 GEL (623,250 USD)	

Today, SMEs are the basis of the Georgian economy. SMEs make a significant contribution to Georgia's economy, making up 94,1% of enterprises, 42,7% of employment and 20,6% of value added in 2013 (OECD/European Union/EBRD/ETF, 2015). The role of SMEs is manifested in the fact that it is able to improve early mechanisms to be flexible and adapt quickly to changing conditions of the economy and the market.

4. THE SMES CLASSIFICATION IN AZERBAIJAN

Micro and small and medium sized entrepreneurship in Azerbaijan is divided into two groups: individual entrepreneurs (i.e. sole owners of the enterprise without forming a legal entity); and small- and medium-size enterprises (i.e. legal entities). All individual entrepreneurs are legally considered small enterprises by default, whereas those registered as legal entities are classified according to two indicators: number of employees and annual turnover (CESD, 2012).

Table 6: Criteria of determination of SMEs in Azerbaijan (Azerbaijan Republic Cabinet of Ministers Order June 29th 2016)

Entrepreneurship Category in terms of size	**Average Number of Employees (Definition 1)**	**Average Number of Employee (definition 2) For Tax Purposes only**	**Annual Revenue Definition 1**	**Annual revenue Definition 2 For tax purposes only**
Small	Up to 25 employees	Self Employed (No hired labor)	Up 200 thousand manat (USD 117647)	Up to 200 thousand manat (Up to 117647)
Medium	Between 25-125 employees		Between 200-1.250 thousand manat (USD 117647 –USD 735294	
Large	More than 125 employees		More than 1.250 thousand manat (USD 735294)	

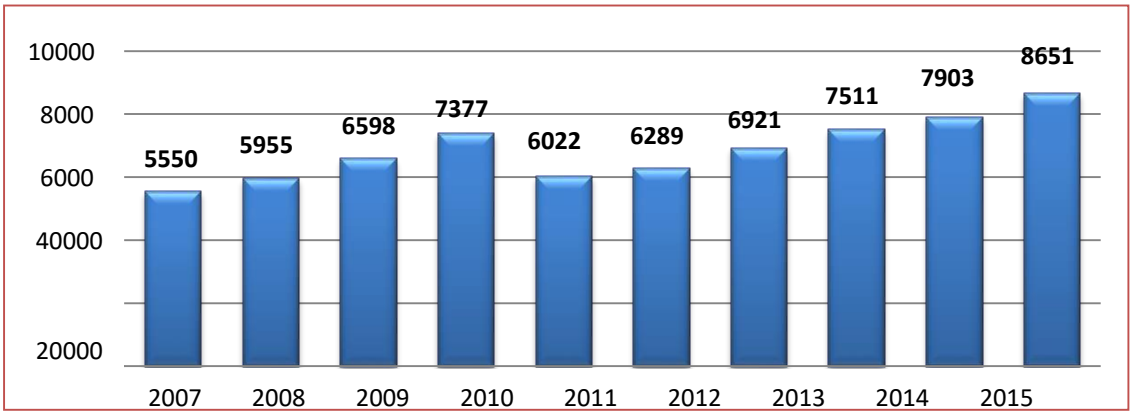
According to the new order, the classification of existing enterprises under the categories small, medium and large is mainly determined by their "average number of employees" and "annual

revenue". If any of the criteria exceed its limits, it causes a change in the classification of the company to the higher level. As for new enterprises, a year after the date of their state registration and tax accounting, small, medium and large enterprises are classified based on their "average number of employees". Also, based on the new order, the overall value of all of the enterprise's goods, activities and services during the course of one fiscal year is added to its annual revenue. When comparing the classification of the European Union, Turkey and in Russian, we can see that the maximum limit for the number of employees required by this type of entrepreneurship in relation to the European Union and Turkey is very small. At the same time, a lower limit has been set in terms of turnover. This is one realistic problem in classification SMEs in Azerbaijan.

4.1. Current situation of SMEs in Azerbaijan

According to the data provided by the Ministry of Economy of the Republic of Azerbaijan for 2016, the number of entrepreneurship subjects in all sectors of the economy were numbered 792,764. As it turns out, in 2016, the number of entrepreneurship subjects increased by 77,179, as compared to 2015. According to given indicators, 36.1% of total entrepreneurs were registered in the city of Baku and 63.9% in other regions of the country. Small enterprises have seen further development under market relations. Generally, according to the indicators of 2016, the majority of all enterprises in the country were small enterprises (86,517 units), it is clear that the number of small enterprises in 2016 has increased by 7,477 units, compared to 2015.

Figure 1: Number of small enterprises in Azerbaijan (The Republic of Azerbaijan Ministry of Economy, 2017)



According to official statistical data, the share of small entrepreneurship entities in the non-oil sector was 5.8% of value added, 0.7% in total gross profit, 6.5% in annual average employees and 9.2% in fixed capital investments. The diversification and development of the non-oil sector is one of the key priorities in the development plans of the government of Azerbaijan. In this vein, the government has implemented a number of reforms in order to support SMEs. However, as compared to developed countries, the shares of SMEs in value added for the Azerbaijani economy is relatively low. While SMEs contribute more than 50% of value added in developed countries, for Azerbaijan, this figure equals only 4%.

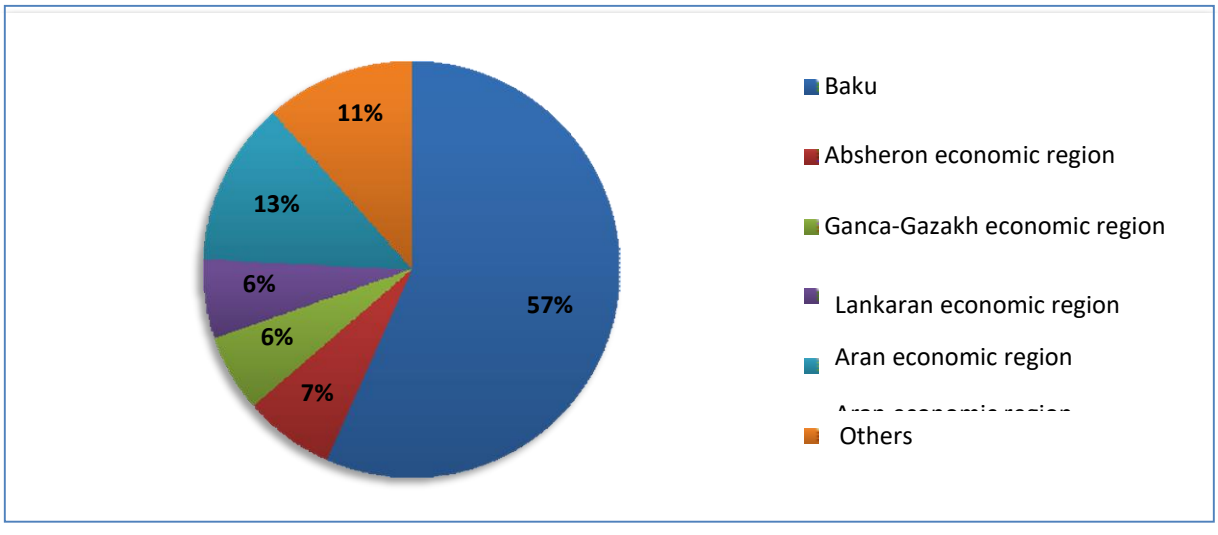
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Table 7: Share of small entrepreneurship subjects in the economy of the country at percentage (The State Statistical Committee of the Republic of Azerbaijan, https://www.stat.gov.az/source/entrepreneurship/?lang=en)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Value added	1,6	1,8	2,6	2,8	2,6	2,7	2,7	2,6	4.0
non oil sector	4,2	4,7	5,1	5,2	5,3	5,2	4,8	4,3	5.8
Gross surplus	0,2	0,2	0,3	0,2	0,3	0,4	0,6	0,7	…
non oil sector	2,7	2,3	2,9	3,0	3,0	3,3	3,5	3,5	…
Average annual number of employees	6,7	7,3	7,6	6,7	6,5	6,4	7,9	7,6	6,3
non oil sector	6,9	7,5	7,8	6,9	6,7	6,6	8,1	7,7	6,5
İnvestments directed to fixed capital	3,9	3,7	3,7	2,8	5,8	3,5	2,7	4,2	5,1
non oil sector	7,3	5,3	5,1	4,0	7,6	4,6	3,8	6,4	9,2
Turnover	4,2	4,5	6,1	8,6	8,1	9,6	10,6	10,5	9,6
non oil sector	7,7	8,4	9,8	15,6	18,3	18,5	20,0	18,4	14,9

Large shares of small enterprises are mainly located in Baku (56.7%), as can be seen in Figure 2. The main reason is that most of the population is concentrated in Baku and, compared to other economic regions or cities, the majority of economic activity is carried out in Baku. The economic regions where small enterprises are mostly located, after Baku, are Aran (13%) and Absheron (7%).

Figure 2: Distribution of small enterprises by economic region in (The State Statistical Committee of the Republic of Azerbaijan, 2017)



In economy, the largest share in the distribution of small entrepreneurship subjects belongs to retail trade, at 49% of small entrepreneurship subjects. After retail trade, 15% belonging to the transportation sector, 7% to accommodation and food service activity, 2% to industry and agriculture, 1% apiece to construction and real estate activities and, finally, 23% belongs to other fields. The major reason is production spheres have been more weakly developed than consumption spheres in the economy of the country. Other reasons are that: the monopoly in retail trade has been weak and the initial capital requirement is small in the retail trade, therefore citizens have more opportunities to engage in entrepreneurial activity in the retail trade area.

Table 8: Distributions of small entrepreneurship subjects (by kinds of economic activity, at percentage) (The State Statistical Committee of the Republic of Azerbaijan, 2017)

	2008	2009	2010	2011	2012	2013	2014	2015
Total economy	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
of which:								
agriculture, forestry and fishing	2,0	2,0	1,9	1,7	1,6	1,5	1,8	1,8
industry	2,3	2,3	2,2	2,0	1,7	2,0	3,4	2,3
construction	1,1	1,1	0,7	0,7	0,7	0,8	1,2	1,1
trade; repair of transport means	64,6	64,2	64,6	70,2	71,7	70,1	49,1	49,3
transportation and storage	10	10,7	10,7	10,1	10,1	10,7	15,1	14,6
accommodation and food service activities	5,9	6	6,5	3,5	3,4	3,6	6,9	6,7
information and communication	0,2	0,1	0,1	0,1	0,1	0,1	0,2	0,3
real estate activities	2,5	2	0,4	0,4	0,4	0,4	0,8	1,0
education	0	0	0,1	0,1	0,1	0,1	0,1	0,2
human health and social work activities	0	0	0,1	0,1	0,1	0,1	0,2	0,2
other fields	11,4	11,6	12,7	11,7	10,1	10,6	21,2	22,6

4.2. Historically overview of SME development policies in Azerbaijan

Over the past period of time, Azerbaijan has taken several actions to support the development of entrepreneurship. Under the Presidential Decree № 610, dated on 24 June 1997, and № 753, dated on 17 August 2002, "State program for the support of small and medium entrepreneurship in the Republic of Azerbaijan (1997 – 2000 years)" and the "State Program on development of Small and Medium Entrepreneurship (2002 - 2005 years)" were adopted and implemented accordingly. In addition, the following programs contain actions for the development of entrepreneurship, further improvement of favorable business environment, improvement of mechanisms for the protection of the entrepreneurs' rights and statutory interests: "State Program on reliable food supply of population in the Republic of Azerbaijan in 2008 – 2015 years" approved by the Presidential Decrees № 3004, dated 25 August 2008 and № 3043, dated 15 September 2008 and "State Program on poverty reduction and socio-economic development in the Republic of Azerbaijan in 2008 - 2015 years", as well as 5 "State Program on socio-economic development of regions of the Republic of Azerbaijan in 2014 – 2018 years" approved by the Presidential Decree № 118, dated on February 27, 2014 and "State Program on the development of industry in the Republic of Azerbaijan in 2015 – 2020 years" approved by the Presidential Order № 964, dated on December 26, 2014.

4.3. The Strategic Roadmap for the production of consumer goods at the level of small and medium entrepreneurship

"The Strategic Roadmap for the production of consumer goods at the level of small and medium entrepreneurship" is developed as a part of a nationwide effort to achieve competitiveness, inclusiveness and sustainability in the economy. The main objective of the aforementioned Strategy is to ensure that small and medium entrepreneurship becomes the key enabler for sustainable economic development in Azerbaijan (Center for Analyses of Economic Reforms, 2017).

Development of SMEs in Azerbaijan is essential to facilitate economic diversification, increase competitiveness, employment, as well as to meet demand for consumer goods and ensure economic development using local resources. The Strategic Roadmap sets the primary policy direction for short, medium and long term perspectives of economic reforms and development of the SMEs. This document consists of the strategic vision for 2020, long term vision for 2025 and target vision for post-2025 period for Azerbaijan. In addition to describing the development strategies in the Strategic Roadmap and strategic objectives and targets in the action plan for 2016-2020, they also define a series of priorities to achieve objectives set for these years, as well as actions to be implemented under each objective, key implementers and clear-cut deadlines. The effective implementation of the selected priorities in the short term will ensure focused and effective execution, which will lay foundation for further efforts in medium to long term. The following were set as strategic targets for the development of the SME in the country in order to achieve relevant strategic objectives of the Strategic Roadmap and ensure maximum utilization of available potential: (Center for Analyses of Economic Reforms, 2017):

- To further improve business climate and regulatory framework in the country in order to increase SME's contribution to Azerbaijan's GDP in the long run;
- Ensure efficient and cost-effective access to financial resources in order to establish sustainable network of the SMEs;
- Internationalize the SME's activity and increase access to international markets in order to increase currency stocks and bring domestically produced products into line with international standards;
- Increase supply of high-quality products and services in regional markets with special emphasis on training of skilled labor force and improvement of skills of the SMEs;
- Promote innovations to boost competitiveness of the SMEs and strengthen research and development in this field.

Particular attention will be paid to strengthening stimulatory impact of financial and tax policies by introducing improved legislative framework governing the SME-related issues, increasing access to financial resources, strengthening technical and information basis, as well as area-based optimal placement of SMEs in the country, protecting domestic market, developing market infrastructure, introducing "single window" approach for issuance of necessary documents, reinforcing joint work among entities representing this sector, etc. Realization of these strategic targets will bring AZN 1 260 million added value and 34,240 jobs in the sector (Center for Analyses of Economic Reforms, 2017).

4.4. The main strategies and targets of Strategic Roadmap

The strategic vision of Azerbaijan for the development of the SMEs by 2020 is to achieve further improvement of business environment, simplified access for SMEs to financing opportunities and trade markets and ensure competitiveness, as well as increased contribution of the SMEs to economic development bringing up their business knowledge and skills. Azerbaijan' long-term vision for 2025 is to further improve competitiveness of the SMEs, achieve supply of substantial portion of daily consumer products by the SMEs and give rise to significant SME contribution to the country's GDP and employment.

Strategic objectives in SME sector are the followings:

- Shape more favorable business environment for SME;
- Increase competitiveness and role of the SMEs in the economy;
- Ensure that all major parts, particularly intellectual part of works and services are provided through the development of SMEs and consequently, the innovations;
- Increase the SME contribution to employment;
- Ensure that key consumer goods are produced by small and medium enterprises;

- Increase share of the SME export in the overall export of the country.

The Strategic Roadmap for small and medium entrepreneurship identifies 5 strategic targets, with relevant priorities for each strategic target. These can be classified as below (Center for Analyses of Economic Reforms, 2017).:

- Improve favorable business environment and regulatory framework for the operation of the SMEs;
- Ensure cost-effective and efficient access to financial sources for the SMEs;
- Internationalization of the SMEs and improvement of their access to foreign markets;
- Increase knowledge and skills of the SMEs and accelerate the introduction of best practices;
- Expand promotion of investments, research and development activities for the SMEs.

The target indicators of Strategic Roadmap (Center for Analyses of Economic Reforms, 2017): The followings are expected to result from the implementation of priorities in the SME sector:

- Increase the SME contribution to GDP by 15 percent;
- Increase the SME contribution to employment by 20 percent;
- Increase the SME contribution to non-oil export by 10 percent;
- Increase GDP by AZN 1 billion 260 million in 2020, in real terms;
- Create additional 34240 employments in 2020.

The following key performance indicators have been identified for measures towards the development of SME:

- Increase the SME contribution to products produced within industrial clusters by 40%;
- Improve by 2 times the rate of dispute settlements among SMEs before court procedures;
- Increase recovery rate of the SMEs (from insolvency) by 4 percent;
- Increase by 2 times the indicators of admission of immovable property as collateral by banks;
- Increase share of leasing transactions in GDP by 2 percent;
- Achieve 5 percent increase in non-oil exports;
- Establish 3-5 model entities;
- Establish 5 new business incubators;

For the implementation of this strategy roadmap, President of Azerbaijan Ilham Aliyev has decreed to create the Agency for Development of Small and Medium-Sized Enterprises under the Ministry of Economy in December 2017. According to the decree, the Agency is a public legal entity that supports the development of small and medium-sized businesses in the country, provides a range of services to the SMEs, coordinates and regulates the services of state bodies in this field. A permanent coordination group has been established under the Agency for Development of Small and Medium-Sized Enterprises (SMEs) of Azerbaijan. The decision was made by the Cabinet of Ministers of Azerbaijan with the aim of implementing paragraph 6.14 of the decree of the President of Azerbaijan, Ilham Aliyev, "On ensuring the activities of the Agency for Development of Small and Medium-Sized Enterprises" dated June 26, 2018. According to the decree, the task of the Coordinating Group will be to coordinate the business development policy, ensure the efficiency and effectiveness between state institutions and the agency while providing services to SMEs (Trend News Agency).

5. CONCLUSION

Small and Medium Enterprises play a very significant role in national and world economy. Accordingly, all world countries support SMEs via different promotion mechanisms.

Regarding to this research, we can assume that SMEs play enormous role in socio-economic indicators of each country. SMEs another significant role is to promote establishing competitive economy in a country. Another impact of SMEs is support of diversification of economy. As an emerging country, Azerbaijan has great potential to benefit from the synergies created by SMEs. The research demonstrates the development of SMEs in Azerbaijan is not at the desired level, and their share in economic growth and employment is much smaller than in other developed and emerging economies. In developed countries, 98-99% of total enterprises are small- and medium-sized enterprises. Although in developing countries such as in Turkey and Russia, this figure is smaller, they still take an important place in the national economy. In regard to Azerbaijan, in the country, 83.30% of total enterprises are small enterprises, but only 4% of the added value of the country belongs to SMEs. The strategic target for 2020 year is increase this figure from 4% to the 15%, but it is still low than other countries. For comparison, value added about 57% in the European Union, 43% in Georgia. At the same time, considering that SMEs are non-oil sector units, then it is important to accelerate and expand diversification across the sectors in the economy. The share of SMEs in production areas is relatively low while 1.8% of SMEs are engaged in agriculture and 2.3% in industry. 49% of Azerbaijani SMEs are concentrated in wholesale and retail trade. These figures shows that it is a potential for diversification and development SMEs in all sectors of economy. There are several hindering constraints in development SMEs in Azerbaijan and all these constraints are mentioned in Strategic roadmap for production consumer goods as level SMEs. These constraints are: the high level of centralization of SMEs specially in capital of republic. Access to finance is one of the most rigid problems in Azerbaijan for SMEs; specially after the devaluation of national currency. Other problems of SMEs are: limited access to markets, legal constraints and a lack of entrepreneurial skills. For the conclusion, we can mention that although SMEs have not developed properly in Azerbaijan, certain steps are already being taken to change this – these steps are mainly related to the simplification of business registration procedures and improvement of tax administration. However, based on statistical indicators, we can say that these steps are still not satisfactory and through taking advantage of world experience, it is necessary to implement more incentive methods. And for these reasons the Agency for Development of Small and Medium-Sized Enterprises can play a significant role in development SMEs in Azerbaijan. In the case of sustainable and productive activities towards the strategic targets set out in the Strategic Roadmap for consumer good as level. SMEs, the importance of SMEs in the economy will increase in Azerbaijan. And all these developments will have a positive impact on macroeconomic indicators of country.

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DUTCH DISEASE: HOW TO MITIGATE ITS EFFECTS

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ABSTRACT
One of the most important problems of resource-rich countries is Dutch disease whose main feature is the appreciation of the domestic currency that reduces the competitiveness of tradable sector and redirects resources from tradable sector to the natural resource and non-tradable sectors which in turn results in increase in non-resource trade deficit. Paper considers different ways to mitigate Dutch disease effects in terms of efficient allocation of resource and argues that: 1) reduction in profit tax rate is preferable to other ways of neutralizing Dutch disease, 2) as selective support for certain sectors leads to misallocation of resources, reduction in profit tax should extends to all producers and not just to tradable sector.
Keywords: *currency appreciation, Dutch disease, effective resource allocation, profit tax*

1. INTRODACTION

A well-functioning economy should be able to promote efficient allocation of resources. Effective resource allocation means a shift of resources from low- to high-efficient firms that promotes increase in competitiveness of economy and sustainable economic growth. Thereby when we talk about resource misallocation, we mean a shift of resources not only from high- to low-efficient firms, but also shift of resources from tradable to non-tradable sector, if this causes deterioration in trade balance. One of the obstacles to the efficient allocation of resources is Dutch disease. Simply put, Dutch disease refers to the currency appreciation caused by natural resource boom that reduces the competitiveness of tradable sector and causes resources to shift to natural resource and non-tradable sector, which in turn results in increase in non-resource trade deficit. Bresser-Pereira (2008) argues that Dutch disease is a market failure that implies a more appreciated exchange rate than the one that would be necessary to make competitive the tradable industries, and only when the Dutch disease is neutralized will the market be able to effectively allocate resources. However policy against Dutch disease also can negatively affect efficient allocation of resources. Paper considers different ways to mitigate Dutch disease effects in terms of efficient allocation of resource and argues that: 1) reduction in profit tax rate is preferable to other ways of neutralizing Dutch disease, 2) as selective support for certain sectors leads to misallocation of resources, reduction in profit tax should extends to all producers and not just to tradable sector.

2. DUTCH DISEASE: CURRENCY APPRECIATION, RESOURCE ALLOCATION, AND NON-RESOURCE TRADE DEFICIT

Dutch disease is the chronic overvaluation of a country's currency caused by exploitation of abundant natural resources that reduces the competitiveness of non-resource tradable sector and results in shift of resources from non-resource tradable sector to natural resource and non-tradable sector, which in turn results in non-resource trade deficit. There is much literature on Dutch disease.

Early studies include Corden (1981), Bruno and Sachs (1982), Corden and Neary (1982), Haberger (1983), Edwards and Aoki (1983) and van Wijnbergen (1984). Corden (1981) shows how revenue from natural resources results in appreciates the domestic currency that negatively affects tradable sector. Corden and Neary (1982) have stressed that Dutch disease is a structural phenomenon that provokes shift of resources from manufacturing to the booming natural resource sector. Natural resource boom provokes also shift of resources to non-tradable sector. It is caused by the fact that natural resource boom raises incomes per capita, and as demand for service (particularly housing, health and recreation) is income elastic compared to manufacturing goods (Fisher, 1935; referenced by Maroto-Sanchez, 2010, p. 8; Falvey, Gemmell, 1996), increase in income per capita leads to fast growth of demand for non-tradable service compared to tradable goods that causes resources to shift to non-tradable sectors. Edwards and Aoki (1983) also show that as commodity export boom causes decrease in the relative price of other (traditional) tradable goods both in terms of booming commodity and non-tradable goods, resources move out of traditional tradable sector into non-tradable and commodity sectors. Bresser-Pereira (2008) argues that Dutch disease is a market failure because natural resource boom generates a negative externality on the economy's other sectors, preventing those sectors from developing. He stresses that Dutch disease is a market failure that implies a more appreciated exchange rate than the one that would be necessary to make competitive the tradable industries, and only when the Dutch disease is neutralized will the market be able to effectively allocate resources. Botta (2014) stresses that currency appreciation caused by the expanded export of natural resources results in decrease in manufactured goods exports and gives rise to a widening manufacturing trade deficit.

3. POLICIES FOR MITIGATING DUTCH DISEASE EFFECTS AND RESOURCE MISALLOCATION

Researchers suggest different ways to neutralize Dutch disease.

- not spending the revenues from natural resources domestically and acquiring foreign financial assets (Harberger, 1983; Bresser-Pereira, 2008, Larsen, 2004);
- levying export tax on natural resources (Bresser-Pereira, 2008);
- production and export subsidy to the tradable sectors (Bresser-Pereira, 2008; Magud and Sosa, 2010);
- import duties (Bresser-Pereira, 2008);
- transferring a revenue from natural resource to the population and then taxing them (Devarajan et al., 2011);
- reduction in profit tax (Corden,1981).

Consider above-mentioned ways of neutralizing Dutch disease in terms of efficient resource allocation.

- Not spending the revenues from natural resources domestically and acquiring foreign financial assets. This policy allows avoiding currency appreciation but it doesn't prevent labor misallocation. Firstly, increase in resource sector compared to other sectors leads to increase in resource sector's share of labor. Secondly, increase in wage in resource sector compared to other sectors further contributes to the shift of labor to resource sector. Thirdly, resource boom leads to increase in demand on labor that causes growth of wage in the whole economy; but wage growth in non-resource tradable sectors relative to productivity growth results in deterioration of their competitiveness that causes deindustrialization and deterioration in non-resource trade balance.
- Levying export tax on natural resources. Export tax restricts the development of natural resource sector and hence promotes the shift of resources to manufacturing. However tax on natural resource increases government revenue, and if natural resource revenue is used

to finance public expenditure, currency appreciates, and if increase in public expenditure doesn't contribute to rise in firms' efficiency, currency appreciation negatively affects non-resource trade balance.

- Production and export subsidies to the tradable sectors. A subsidy allows firms to partially offset the production costs and thereby to mitigate the negative effect of currency appreciation on competitiveness. However if among firms receiving subsidies there are unprofitable firms, this policy prevents resources from being transferred from inefficient into efficient firms, and thus cause resource misallocation.
- Import duties. Like subsidy, import duties allow domestic firms to mitigate the negative effect of currency appreciation on competitiveness. However, as along with efficient firms, unprofitable firms also take advantage of import duties, this policy also prevents shift of resources from inefficient into efficient firms, and thus causes resource misallocation.
- Transferring a revenue from natural resource to the population and then taxing them. It is assumed that government spending that is financed by taxation—rather than by resource revenues accruing directly to the government—is more likely to be scrutinized by citizens and hence subject to greater efficiency. However this policy results in increase in non-resource trade deficit as spending of the revenues from resources domestically causes currency appreciation and deterioration of firms' competitiveness, and therefore increase in consumer spending caused by growth in income of the population encourages more imports rather than domestic production.
- Reduction in profit tax. Resource revenue may allow the country to reduce profit taxes and thus neutralize the negative effect of currency appreciation:
  - firstly, post-tax profits of producers may rise even though pre-tax profits have fallen;
  - secondly, reduction in profit tax reduces firms' cost that allows firms to offset increase in wages caused by natural resource boom;
  - thirdly, reduction in profit tax allows firm to increase investment in fixed capital that also will positively affect their competitiveness.

Thus, reduction in profit tax allows firms to mitigate the negative effect of currency appreciation on competitiveness of tradable sector. However, unlike other way of supporting tradable sector, unprofitable firms cannot take advantage of reduction in profit tax that encourages resources to move out of the inefficient firms. Thereby reduction in profit tax allows avoiding resource misallocation that makes reduction in profit tax preferable to other ways of neutralizing Dutch disease. Moreover, as selective support for certain sectors leads to misallocation of resources, reduction in profit tax should extends to all producers and not just to tradable sector.

4. CONSLUSION

Currency appreciation caused by natural resource boom results in resource misallocation. Dutch disease causes resources to shift from tradable sector to non-tradable sector that results in non-resource trade deficit. Paper considers different ways to mitigate Dutch disease and argues that in terms of efficient allocation of resource, reduction in profit tax rate is preferable to other ways of neutralizing Dutch disease. Thus, reduction in profit tax increases post-tax profits of producers, reduces firms' cost and encourages investment in fixed capital that allows firms to mitigate the negative effect of currency appreciation on competitiveness of tradable sector. However, unlike other way of supporting tradable sector, unprofitable firms cannot take advantage of reduction in profit tax that encourages resources to move out of the inefficient firms. Moreover, as selective support for certain sectors leads to misallocation of resources, reduction in profit tax should extends to all producers and not just to tradable sector.

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THE IDENTIFICATION OF POLES OF COMPETITIVENESS OF THE ECONOMY THROUGH INTER-REGIONAL COOPERATION

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ABSTRACT

In the current economic situation, at a time of limited resources and opportunities, as well as the number and severity of unresolved social and economic problems, the possibility of using the theory of "growth poles" is increasingly relevant. "Growth poles" ("points of economic growth") are agglomerations of enterprises, productions concentrated territorially and allocated by intensive innovative processes. Determination of the most perspective branches of development of regions, levels of development of branches promote increase of efficiency of strategic planning of the region, and also specific orientation of investment activity within area. Due to the limited budget, it is necessary to determine the unstable sectors of the region, as well as the development prospects characteristic of the region, for the implementation of support and regulation. The relevance of the topic is due to the fact that the formation and effective functioning of "points of growth" is increasingly approved as one of the key instruments of regional development policy, as well as the development of individual territories. The increase in the effectiveness of the measures proposed by the government, as well as the formation of an effective investment policy contributes to a clear definition of the main promising sectors of the regions, i.e. the "growth poles" of the regions. Determining the goal of creating a pole of competitiveness is the key to its further effective development. The pole of competitiveness is aimed not only at the development of enterprises and companies included in it, but also at the comprehensive development of the territory in which it is located. Clearly defined boundaries of creating a pole of competitiveness allow us to determine the structures that will control its activities. Lack of control often leads to inappropriate and inefficient public financing and hinders the development of the competitiveness pole. In the work considered two methods for determining the major growth poles: the first approach is based on the basis of determining the competitiveness of industries, the second approach is characterized by the determination of the structural elasticity of production in the region. Main results: the concept of "growth poles" for the region is characterized, as well as the algorithm for determining the promising growth poles is considered, the main promising industries are identified, as well as

the level of development of each of the industries at the present time, the model of unique competencies of the region is presented, which will allow to identify interregional poles of competitiveness growth and develop strategies for spatial development of the region. The main methods used in writing the work are: comparative analysis, monitoring, historical and political science, the method of constructing scenarios, correlation and regression analysis.
Keywords: *information technology, information, socio-economic development, region*

1. INTRODUCTION

Unstable political situation in the world, destabilization of the world economy and the country's economy in particular due to the introduction of sanctions load - these factors influence the state and regional policies in the field of import substitution and increase the level of regional self-sufficiency, and, consequently, accelerate the socio-economic development of the regions. The foundations of interregional cooperation were laid back in the 18th century in the theories of absolute and relative advantages A. Smith and D. Ricardo. The classical theories of location made a significant contribution to the formation of the theory of interregional interaction: the theory of localization (I. Thünen), the theory of central places (V. Kristler), the theory of industrial standard (A. Weber and V. Launhardt), the theory of spatial economic balance (A. Lesh) et al (Serebryakova, S. V., 2009, p. 256-260). Since the middle of the last century, against the background of a sharp increase in world trade, an increase in competition between countries and regions, theories developed that reveal the nature of interregional trade, reveal the nature of interregional trade and the competitive advantages of certain territories in it (M. Porter, P. Krugman). Among Russian economists who have obtained the most significant results on the problems of interregional economic interaction, it should be noted A. Granberg, P. Minakir, N. Kolosovsky, A. Tatarkin and others (Granberg, A. G., 2000, p. 76.). The issues of interregional cooperation were addressed by such scientists as N.P. Zhuk, L.V. Ivanovsky, M.Yu. Makhotaeva, V.V. Okrepilov, K.V. Pavlova, T.V. Terentyev. The development of interregional cooperation has an impact on the development of regional industries - the expansion of sales markets, an increase in the level of resource supply as a result of agreements between regions, and the creation of so-called competitiveness poles in the region. The creation of the poles of competitiveness (growth) was first used in France since 2005 in order to enhance the integrated and innovative development and competitiveness of the country. In Russia, given the strategic policies of the country and regions, this experience in creating poles of competitiveness is highly relevant. In the framework of writing the work, such methods were used as: comparative, graphical, tabular, logical, method of multidimensional comparative analysis, as well as economic-statistical method. The data of the Territorial body of the Federal State Statistics Service for the Belgorod Region and the Federal State Statistics Service were used as data for analysis.

2. INTER-REGIONAL COOPERATION REGIONAL

Over the past years, the Belgorod Region has been among the steadily developing subjects of the Federation. In the structure of the gross regional product, the main economic activities are manufacturing (34%), agriculture (22%), wholesale and retail trade (12.6%) and mining (9.7%) (Corporation development. Belgorod region. URL:http://belgorodinvest.ru (in Russian)). Belgorod Region is a region secured by one third of Russia's iron ore reserves, industrial production in the field of mining and metallurgy is represented by such companies as: OAO Oskolsky Electrometallurgical Plant, OAO Lebedinsky GOK, OAO Stoylensky GOK, OAO Kombinat KMAruda ", ZAO Belgorodsky Cement, etc. On a nationwide scale, the region produces (Fig. 1):

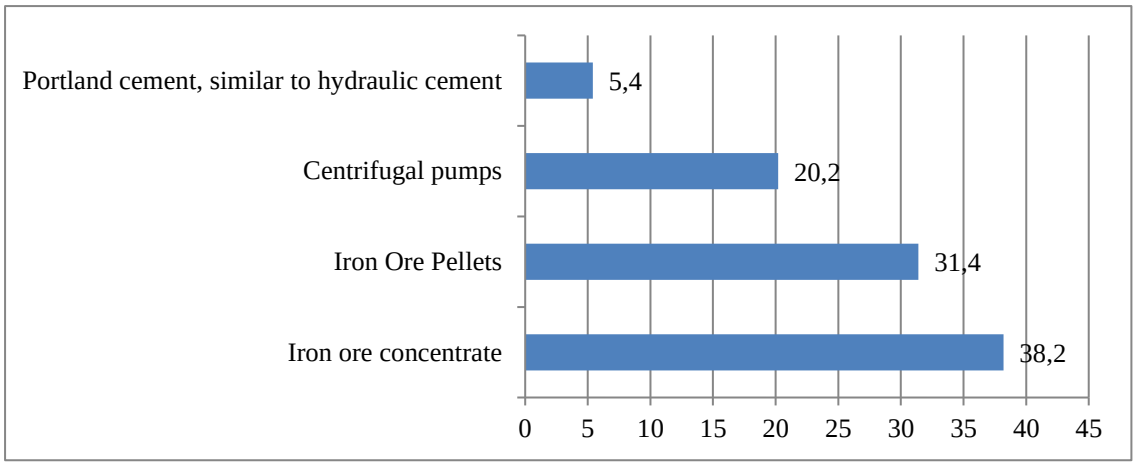


Figure 1: *The share of the metallurgical industry of the Belgorod region on a national scale, % (Federal state statistics service. URL: http://www.gks.ru)*

The machine-building complex of the region is represented by the production of finished metal products, machinery and equipment, electrical equipment, electronic and optical equipment, vehicles and equipment. Along with the mining and metallurgical industries, the basis of the regional economy is the food industry and agriculture. The land area of the region is 2713.4 thousand hectares, more than 70% of which is black earth soil. The region occupies in the Russian Federation:

- 4th place in terms of agricultural production;
- 1 place in the production of meat;
- 1 place in the production of feed;
- 4th place for the production of eggs;
- 2nd place in the production of soybeans;
- 6th place in the gross yield of sugar beet (Vladyka M.V., Kogteva A.N., Kuprijanov S.V., Kulik A.M., Gerasimova N.A., 2018, 1583-1591).

Mutually beneficial interregional relations of the Belgorod region are strengthened every year. Within the framework of interregional cooperation in the territory of the Central Federal District, the Association of Economic Cooperation of the Subjects of the Russian Federation of the Central Federal District "Central Chernozemnaya" functions, which includes the Belgorod Region. Currently, the Government of the region has signed agreements on trade, economic, scientific and technical cooperation with both the regions of the Central Black Earth Region and other regions of Russia. The conclusion of such agreements provides a legal and organizational basis for comprehensive cooperation, the main forms of which are trade, cooperation and the exchange of investments and innovations. To analyze the competitiveness of the industries of the Belgorod region, we consider the export of products outside the territory of the Belgorod region to the subjects of the Russian Federation. The export of products to the territory of the Russian Federation from the Belgorod Region is dominated by products of the ferrous metallurgy and agriculture. Products manufactured in the region, in accordance with scientifically-based consumption rates, in addition to 1 million 552.9 thousand Belgorod residents, Belgorod Region provides:

- 43.2 million people. pork;
- 25.8 million people. poultry meat;
- 36.3 million people. vegetable oil;
- 17.9 million people. sugar;
- 0.5-3 million people. individual groups of vegetables.

When considering interregional commodity exchange of the Belgorod region in terms of the destination of moving goods, it should be noted that its main part is the production of consumer goods (tab. 1).

Table 1: The structure of the export of food from the Belgorod region (Federal state statistics service. URL: http://www.gks.ru)

product name	year		
	2014	2015	2016
Meat and poultry, tons	634113	650468	626181
Canned meat, thsd. pack	39,3	96,6	250
Sausages, tons	14146	17678	18411
Cheese and cheese products, tons	1107	1814	2119
Butter, tons	4156	4924	4756
Vegetable oil, tons	83231	75582	167190
Sugar, tons	373605	386488	412463
Flour, thousand tons	143	113	113
Cereal, tons	400	1524	646

It should be noted that for 2014-2016, the export of practically all main goods from the region to the regions of the Russian Federation increased in physical terms. Moreover, the highest growth rates were characteristic for the export of agricultural products. Supply of ferrous metallurgy products to the regions of the Russian Federation has also increased. A decrease was observed only in sales volumes of mineral fertilizers. Noteworthy is the fact that industrial enterprises of the region are gradually reorienting the direction of their supplies from foreign markets to domestic ones. The buyers of products manufactured by enterprises of the Belgorod Region are mainly the regions of the Central and Volga North-West Federal Districts. The development of foreign economic cooperation and export growth is an important task in the development of the Belgorod region. Consider the export structure of the Belgorod region in Fig. 2

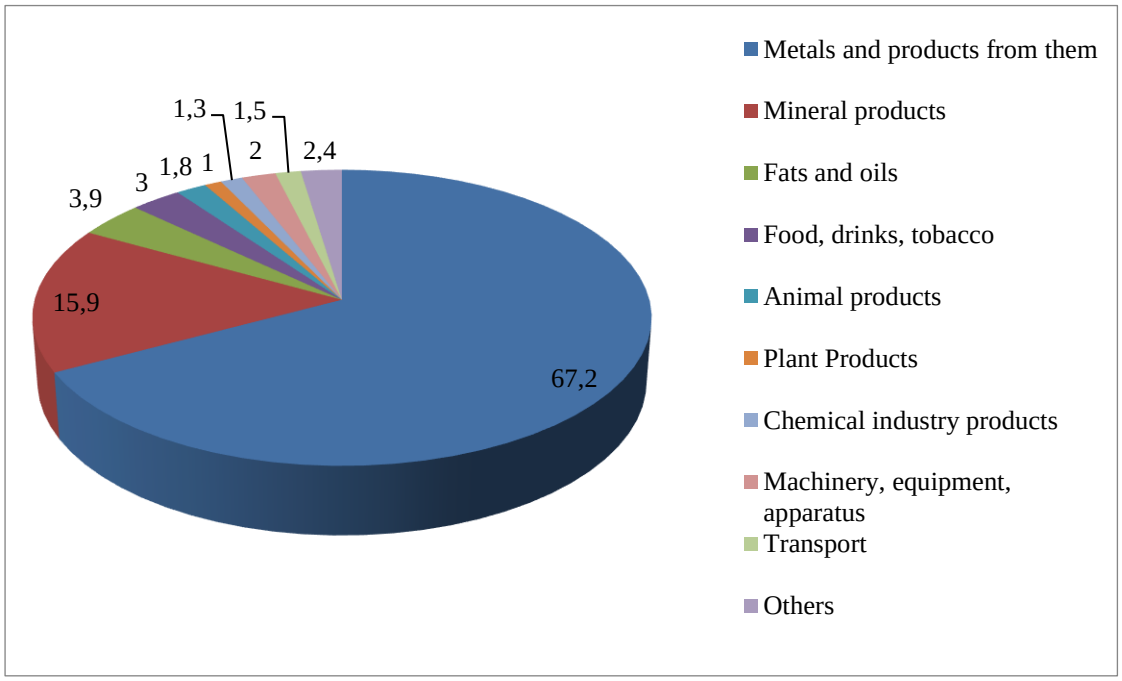


Figure 2: Export structure of the Belgorod region in 2014-2017, % (Federal state statistics service. URL: http://www.gks.ru)

Under the conditions of the sanction load, the development of production associated with the extraction of minerals is most relevant. In the structure of exports of the Belgorod region for the period 2014-2017, the dominant share of metals and products from them (67.2%), mineral products account for 15.9%. As a region with an agricultural focus, in the export structure, the Belgorod region also has agricultural products and products of its processing - fats and oils (3.9%), food products and beverages (3%), vegetable products (1.3%) and animal origin (one %). The Belgorod region currently exports to 126 countries of the world; the largest exporting countries are: Turkey (12.6%), Ukraine (10.8%), Italy (9.1%), Egypt (5.7%). %), Kazakhstan (5.4%), Germany (4.7%), Belarus (4.7%) (Vladyka M., Vaganova O., Solovieva N., 2017, p. 95)

3. THE IDENTIFICATION OF POLES OF REGIONAL COMPETITIVENESS

Identifying the poles of a region's competitiveness cannot be based only on an analysis of inter-regional interaction. In order to clarify the conclusions made in this paper, we consider the poles of competitiveness on the basis of data from the internal activities of the region. Poles of competitiveness are enterprises with a strong production strategy and a high level of profitability. Consider the level of profitability of enterprises of the Belgorod region in Fig. 3

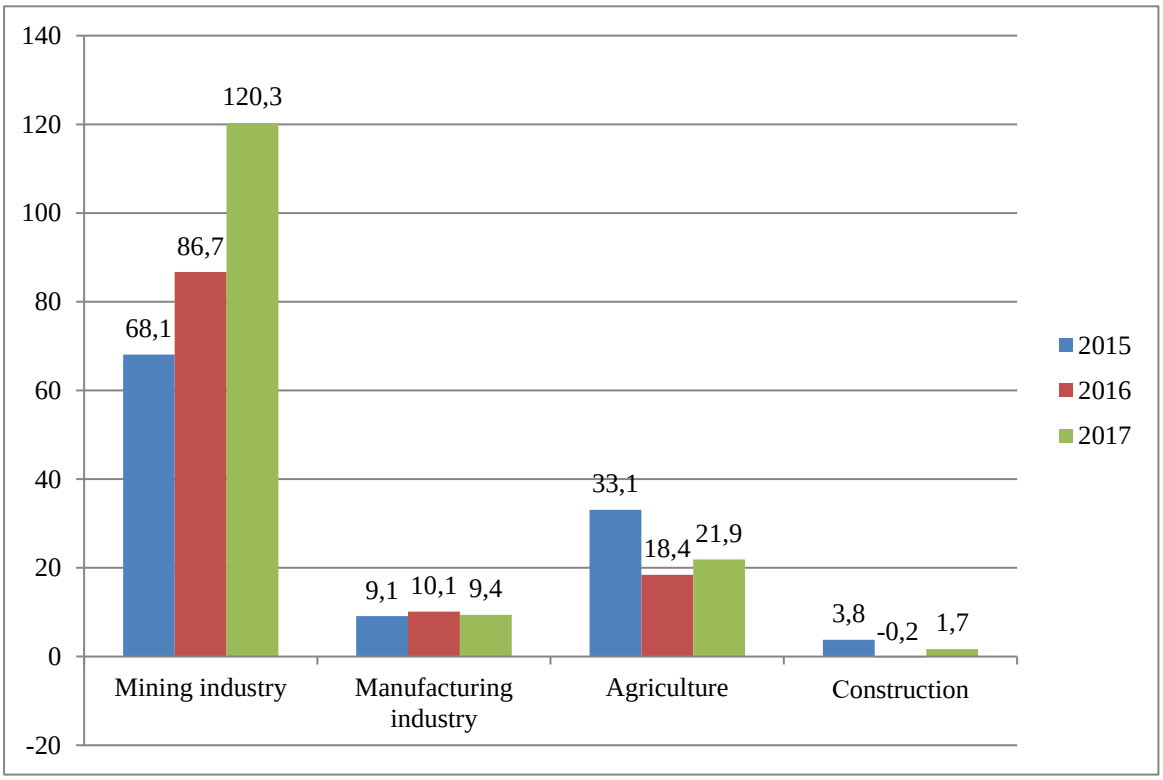


Figure 3: The level of profitability of industries of the Belgorod region (URL:http://belgorodinvest.ru)

According to the figure, it can be concluded that the most profitable in the Belgorod region is the mining industry, which has the highest level of profitability. The agricultural industry also demonstrates positive values of profitability, while there is a noticeable trend towards a decrease in the value of the indicator in 2016, with an increase in 2017. According to the method of L. Dedov, on the basis of calculations of the conservative component of the growth rate and the reconstructive component of the growth rate, established by us in previous works, we consider the phases of economic development of the main branches of the region in Table 2.

Table 2: Phases of economic development of branches of the Belgorod region (Federal state statistics service. URL: http://www.gks.ru)

	Mining industry	Manufacturing industry	Agriculture	Construction
2015	5	3a	6	1
2016	1	1	3a	5
2017	1	5	3a	6

According to the table, it can be concluded that the industries with dynamic development in the Belgorod region are the mining industry, which has a transition 4 → 1. Agriculture, which is developed according to the law of Griffen, is also a promising sector of the region, while the introduction of import substitution policies in the country has an impact on the development of this sector. Thus, summarizing the above, we can say that the main poles of competitiveness for the Belgorod region are the mining industry and agro-industrial production, which is closely connected with the processing industry of the region. It should be emphasized that among the solved problems of each specific modern optimization inter-sectoral interregional model (OIIM) are (Fig. 4):

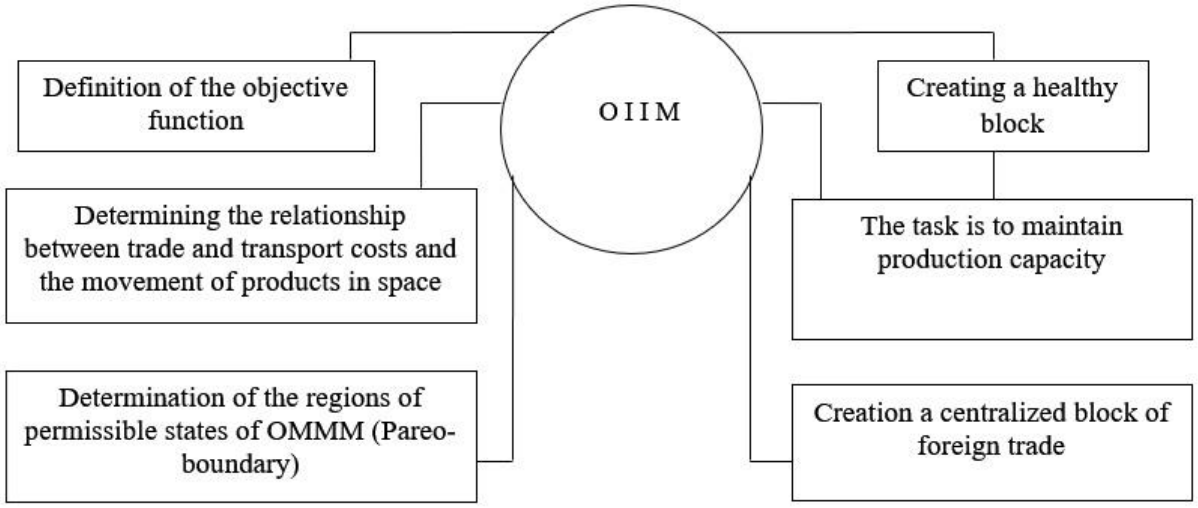


Figure 4: Problems of modern optimization inter-sectoral interregional model (Granberg, A. G., 2000).

Solving these problems allows you to create a flexible optimization model, the transition within which from one development scenario to another is carried out by changing a small number (15–20) of parameters, rather than a complete restructuring of many hundreds of boundaries into separate variables. The main restrictions are balances by industry, region, directions of transportation, the meaning of which is that it is impossible to consume and take out more than produced and imported. Therefore, the solution of this model shows one of the possible states of the economy that meets the interests of the country and the population of each region. The current research in the field of regional economics makes it particularly important to build effective programs and forecasts for the development of the Russian economy. An effective tool for solving problems of analysis and forecasting at the macro level in the context of the regions today are optimization interregional intersectoral models.

4. CONCLUSION

In conclusion of the above, the following conclusions can be drawn: the identification of the poles of competitiveness on the basis of interregional cooperation is one of the aspects of

considering the competitiveness of a region. The Belgorod Region cooperates both with the regions bordering it (Kursk, Voronezh Oblasts, Ukraine), and with regions with a remote geographical position (for example, Ryazan Region). The main products exported from the region are: iron ore and its processed products, agricultural products, as well as food. In addition, the region supplies construction materials, machinery and equipment, as well as innovative technologies and developments to the territory of Russia. Thus, it can be said that, based on the analysis of inter-regional interaction, the primary poles of competitiveness are the mining industry and agriculture. Based on the internal analysis of production activities within the region, the conclusions about the poles of competition (growth) were confirmed by the identified dynamic development of industries. The policy of import substitution within the country, the unstable economic situation in the country and the world, are the motivating factors for identifying the poles of the competitiveness of regions with a view to their further development. Emphasizing the strategic focus on these industries contributes to the level of competitiveness of the region, as well as food and material support of the country as a whole.

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THE ROLE OF A FINANCIAL ACCOUNTING IN ENSURING ECONOMIC SECURITY OF AN ENTERPRISE

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ABSTRACT
It is well known that an economic security comprises a foundation of a national security. In this regard, the article reviews the main constituent elements of economic security at macro and micro levels, identifies approaches for developing a system of economic security of an enterprise and conducts their comparative analysis. Besides, the article determines measures for ensuring economic security of an enterprise through developing an accounting system.
Keywords: *accounting, economic security, risk*

1. INTRODUCTION

Strengthening competitiveness of internal production through attracting direct investments in the non-oil sectors of economy for further acceleration of developing this sector, support to import replacement activities and further increase in internal production, as well as increasing export possibilities of non-oil sector have been identified as strategic goals of Strategic Road Map on National Economy and Key Sectors of the Economy of Azerbaijan, as approved by the Order of the President of the Republic of Azerbaijan number 1138 on 06 December, 2016. One of the main factors of economic development is a favorable economic situation in the country ensured by the relevant state bodies in raising economic security and security of the national economy as a whole, as well as individual components of the economy. In the meantime, both individual household subjects and regions of the country need to take efforts to ensure own economic security. Economic security is one of components of the general concept "security". Any damage can receive the monetary assessment eventually that is the economic component of damage that may be allocated. Therefore, it is possible to note that economic security is the most universal and often interacting with others making the concepts "security".

2. THE MAIN COMPONENTS OF THE ECONOMIC SECURITY

To determine the place of economic security of a business entity in the national security system, it is necessary to clarify the constituent elements of national security. As noted by L.I.Abalkin, economic security is at the heart of a national security, since the economy plays a basic role in the development of society. At the same time: "... economic security is a set of conditions and factors ensuring the independence of the national economy, its stability and resilience to constant renewal and self-improvement" (Abalkin, 1994, p. 13). As we know, any accounting is conditional on the background of economic subjects. The state economy is founded and operates on the categories that are embodied in the simplest accounting system "plus/minus". This algorithm is the basis not only in the accounting system of business entities at the micro level, it is also the actual basis of the state macroeconomic policy. Even in the sphere of fiscal regulation, economic feasibility is one of the principles of building a national taxation system.
A separate role of the concept of economic security belongs to a financial security, which is reviewed from the point of view of protecting the financial interests of the subjects of household economy at all levels of financial relations, inside and outside of the national economic system, protection of it from the adverse effect of external macro-economic and political factors (Milyaev, 2010, pp. 96-101). Thus, the criteria for ensuring the level of financial security, and, consequently, economic security can be considered the following: stability, balanced development of financial, moneyandcredit, monetary, budget, tax, settlement, investment and

stock system of the state. At micro-level of relations among subjects of household economy, one shall take into account one of the most important concept – principles of content priority over formality, which reviews the business process from the point of real economic content, not juridical forms. Therefore improving the system economic security is conditional on the following reasons: 1) adoption of a new company strategy and emergence of new risks; 2) systemic changes occurring in the company; 3) implementation of large corporate projects within theframework of the developed newstrategy; 4) information support of the company's business processes; 5) introduction of new corporate management systems of management and electronic financial settlement systems. Thus, one of the key elements in improving the economic security of a company is taking into account the probability of the risk of the business process. Risk is one of the quintessence of a business process. The security of any business process depends on the level of risk that must be predicted and built in advance. Specialists integrate the main risk levels into the following segments: price risks; organizational risks; natural risks; legal risks; regulatory risks.

3. COMPARATIVE ANALYSIS OF APPROACHES TO CREATING A SYSTEM OF ECONOMIC SECURITY OF THE COMPANY

Proper identification of an economic nature of functioning enterprise, justification of risk levels of business processes are guarantees for building up an effective financial accounting system and financial accountability, as well as adoption of the right management decisions. When making the right management decisions, it is necessary to conduct an economic assessment of the effect of creation of economic security system and consider spilled approaches in its implementation. In this case allocate the following approaches: 1) value-based; 2) cost-based; 3) combined.The expediency of applying one approach or another is conditional on the position occupied in the market by this corporation and its mission.Table 1 presents a comparative analysis of approaches to creating a system of economic security of the company. Thus, the system of measures of economic security of the enterprise should be built on the basis of the following principles: 1) complexity - coherence of means, forms and methods in the construction of an integrated system of economic security which affects all areas of functioning of a business entity; 2) scientific character - determination of the list, content, sequence, size of protective measures aimed at ensuring a given level of security; 3) economic feasibility - the principle of implementation of security measures in which their value does not exceed the cumulative loss of a business entity; 4) separation - creation of successive lines of protection (protection zones) while the more important of the zones must be inside another, less important zone; 5) adequacy - created level of security is equal to or exceeds the threshold values of the indicators that determine the level of the company's functioning as safe, but not striving to create a level of "absolute" protection; 6) preventiveness - the implementation of security measures that act to prevent possible threats (risk prediction); 7) feasibility - the implementation of security measures to a specific object in specific conditions; 8) adaptability - the ways and forms of command that allow adapting to a new, risk or threatening situation; 9) continuity and systemacy - constant and systematic analysis of the functioning of a business entity and monitoring its economic security.

Table following on the next page

Table 1: Comparative analysis of approaches to creating a system of economic security of the company

Approach	Value-based	Cost-based	Combined
Purpose of application	It is used when a company has good financial capabilities (has a sufficient amount of liquid finance) and comes to determining the value of an economic security system and justifying the economic feasibility of its implementation	It is used with strict budget constraints to create economic security	It is applied at the stage of business process formation (when expanding a business or when changing the scope of activity)
Procedure of application	Typical solutions (the cost of which is known) by analogy with similar objects and assessed the achieved level of security by key indicators. The calculation of the safety indicators of the entity functioning is carried out and a list of the events is determined to achieve the goal set	It is necessary to determine the threat to economic security	Minimization of the most likely threats
Positive aspects	The project is proactively oriented, aimed at preventing potential damage. The project is aimed at solving a complex problem. The ability to plan costs and sources of funding. Varying basic indicators. Sufficient protection system. Planning and attracting new financial resources. High-quality organizational and economic management	The lowest costs for security	Lower costs for ensuring economic security compared with the cost approach. A higher level of security compared to the cost method. Possibility of redistributing the budget when creating an economic security system
Negative aspects	Large expenditure of financial flows to ensure economic security. The complexity of calculating the values of the basic indicators of economic security. No correlation between some basic indicators. The difficulty of predicting the occurrence of negative consequences and the cost of their solution. The need for highly qualified personnel	Creating the minimum possible conditions for economic security. The project aims to address certain security issues, and not a set of problems. The difficulty of varying the basic indicators. Limited funding and its instability. Organizational and technical and economic support of project is strictly limited	Availability of a large number of weak points. The difficulty of forecasting in time. High probability of loss. Availability of a reserve to compensate for possible damage. The complexity of managing the security system

4. ENSURING THE ECONOMIC SECURITY OF A BUSINESS ENTITY THROUGH THE PRISM OF BUILDING AN ACCOUNTING SYSTEM

Complex security and security of an enterprise is ensured through system of measures, directed towards prevention, identification, detection, localization and liquidation of threats independent of their sources of origin (Zhurko, 2008, pp. 89-100). Figure1 presents a system of measures to ensure the economic security of a business entity through the prism of building an accounting system.

System of measures to ensure the economic security	
Forecasting and identification of threats	Detection and localization of threats
Assessment of a damage	Liquidation of threats
Effective system of accounting	

Figure 1: The system of measures to ensure the economic security of a business entity

Forecasting and identifying of threats is possible during monitoring of the financial and business activity of a company, and the assessment involves calculating potential losses in cases of occurrence of force majeure circumstances and failure to take the necessary protection measures, that is, it involves predicting possible threats and specific actions to eliminate them. Evaluation is possible only when analyzing the financial statements of an enterprise which must be made on the basis of reliable accounting data of the enterprise. The accounting system in the Republic of Azerbaijan is represented by three types of accounting: financial, tax and management accounting (figure 2).

ACCOUNTING SYSTEM OF AN ENTERPRISE		
Management accounting	**Financial accounting**	**Tax accounting**
Based on internal regulations of entrepreneurial activity subjects	Based on normative base of the Republic of Azerbaijan	
Presents information to internal users	Presents information to external users	
Developed by managers	Reports are clearly regulated	
Is a basis for development of enterprise's strategy	Is a basis for development of state's strategy	
ECONOMIC SECURITY		

Figure 2: The accounting system of an enterprise

Thus, ensuring the economic security of the subjects of household economyis based on the accounting objectives set forth in Law of the Republic of Azerbaijan "On accounting" on 29 June, 2004 and Conceptual framework to National Accounting Standards for Commercial Organizations, which states that the purpose of accounting and financial reporting is to provide users with complete, reliable and unbiased information on the financial condition, results of operations and cash flow of the enterprise for making decisions.In addition, such a postulate as completeness of coverage plays an important role, that is, financial statements should contain all the information about the actual and potential consequences of business operations and events that can affect decisions made on its basis. In addition to financial and tax accounting at the enterprise, the accounting system is represented also by management accounting which is based on the managers' professionalismand, as a result, building of management accounting in an enterprise is a big half of the success of a company's business process. Financial, tax, statistical and other forms of reporting using a money meter are based on accounting data and they are not understandable to foreign investors who would like to invest in economy, but they are not sure that the information presented in the reports which will be made in accordance with applicable national standards will be accurate and complete. Therefore, very often the financial statements of a business entity are a product of straightforward management targeting, rather than the result of the desire to provide users with reliable and complete information about the financial and economic activity of the enterprise, and this in turn leads not only to the destruction of the economic security of the business entity in particular, but also destruction of the economic security of the entire national economic system as a whole, since it is impossible to predict the behaviour of the macroeconomic indicators and develop a state development strategy for the near future. Based on the abovementioned, it is possible to cure the main components of the company's economic security and the threat to economic activity (table 2).

Table 2: The components of the economic security of the company and the threats to economic activity

Components of the economic security of the company	Threats to economic activity
Financial security	Inefficient planning and management of company assets. Inefficient construction of a company's accounting system. Inconsistency in market conditions financial and tax strategies. Nonoptimal organizational structure of the company, price and personnel policy. Not completely accounted financial risk. Poorly organized control over the company's cash flow. Overdue receivables. Force-majeure circumstances.
Technical and technological security	Introduction of new technologies and production techniques by competitors. Errors in determining the technical and technological policy of the company. Lack of operational analysis of new techniques and technology. Damagefrom the lateintroduction ofinnovation in the production process.
Legal security	Inefficient normative and legal regulation. Low qualification of personnel. Poor organization of legal support of the company.
Information security	Lack of complete and reliable information about the activity of companies in the relevant industry (products and innovations introduced to companies, as well as about the employee incentive system, etc.). Undermining the company's reputation by spreading negative information about the business entity. Industrial espionage. Hacker attack on the company'scomputers.
Organizational security	Unscrupulous game of competitors in order to damage property and the financial and economic condition of a business entity,as well as thecompany's raider seizure. Loss of competitive advantages in the market.

5. CONSLUSION

The economic security of a national economic system directly depends on all its components, both at the macro- and microlevels, and it also depends on the degree of protection of its elements and the optimal ratios of the actions of the state, society and the economy.The economic security of an enterprise depends on such components as the level of arrangement of the enterprise's management accounting; the level of openness of the enterprise to external users through the financial and tax reporting provided by them; state fiscal policy; human resources potential of the enterprise; the level of coverage by globalization process; business process risks.

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THE IMPACT OF GOVERNMENT EDUCATION EXPENDITURES ON ECONOMIC GROWTH: EVIDINCE FROM AZERBAIJAN

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ABSTRACT

This paper investigates the impact of government education expenditures on economic growth in Azerbaijan during 1995-2017 using the Vector Error Correction Model (VECM). Since the study uses time series variables the unit root properties of employed variables are tested for non-stationarity. Stationarity of the data is tested using conventional Augmented Dickey-Fuller test. Different cointegration methods, namely, Johansen, DOLS, FMOLS and CCR are used in order to get more robust results. The results from cointegration methods are consistent with each other and confirm existence of long-run relationship among the variables. This implies that there is a long run relationship between government expenditures on education and economic growth in Azerbaijan. In order to test the quality of the model residuals of the model are tested for the serial correlation, heteroskedasticity, and normality. The model is checked for model misspecification and stability. The results of all above mentioned tests are found to be adequate. Moreover, estimation results of VECM show that government expenditures on education has positive and statistically significant impact on economic growth in the long-run. The paper concludes that a concerted effort should be made by policy makers to boost educational investment in order to accelerate economic growth.

Keywords: *Azerbaijan, cointegration, economic growth, government education expenditures, VECM*

1. INTRODUCTION

Education is an important determinant of economic growth for any country and is considered as one of the necessary conditions to achieve better outcomes on social welfare. Investing in education means to invest in human recourses that are one of the most important factors of production function that is directly linked with the countries' development level and the standard of living. It raises the labor productivity and efficiency and thus produces skilled labor force that is capable of leading the economy towards the path of sustainable economic development (Zaman, 2008). Government expenditures on education lead to human capital formation more than to physical capital and social capital, and that makes a significant contribution to economic growth (Dickens et al., 2006; Loening, 2004). Because expenditures on education contribute to human capital development, they can help achieve better education outcomes. An investment in human capital, especially in education allows each person to contribute to their society productively. It becomes an important determinant of an economy's capability to achieve a high level of growth with low unemployment, high wages and a strong social unity.

Therefore, the impact of education spending on economic growth is one of the crucial issues in the economic literature. There are several models such as Solow (1956), Lucas (1988) and Romer (1990) that highlighted the human capital, formed through spending on education, as a driving force of economic growth. The social benefits of education provide a powerful set of arguments in favor of public investment to achieve the social optimum (Harsha, 2004). Therefore, government spending on education as investment is an economic issue well debated nowadays. There are a lot of empirical research papers that estimate the relationship between public expenditure on education sector and economic growth. However, they come out with different conclusions on the relationship between public expenditure of education and economic growth. The common view is that education expenditure is the key to sustainable growth (Blankenau et al., 2007: 393). Economic theory provides important foundations for this idea. Considering the studies on the importance of human capital, Nelson and Phelps (1966) stated that a better educated workforce would adopt technological developments faster and better mimic technology. Aghion and Howitt (1998) state that human capital accumulation increases the innovative capacity of the economy, thus accelerating growth. Benhabib and Spiegel (1994) stated that education supports economic growth, helping the successful implementation of new technologies designed by others, dissemination and dissemination of the information necessary for understanding and processing new information. Mankiw, Romer and Weil (1992), Lucas (1998), emphasized that the increase in the human capital of the individual can contribute to the productivity of all the factors of production except its own efficiency and thus provide a growth-promoting process. Therefore, education makes the manpower needed by the economy more efficient. Also, it contributes to the development of creative thinking and advanced techniques with more qualified workforce, which is more suitable to the needs of the changing economy, and thus prepares important foundations for the continuation of economic growth as well as social cohesion (Wykstra, 1971). Given the above arguments, the main aim of this paper is to investigate the impact of government's education expenditures on economic growth in Azerbaijan using annual data covering the period from 1995 to 2017. The contribution of the study is as follows: (a) It studies the government education expenditure-economic growth relationship in the case of Azerbaijan, which is a rarely investigated example under education-income framework, and is a good representative for the similar economies, (b) this is the first study investigating this relationship in the case of Azerbaijan by employing time-series data, which enables to see the country-specific features of this relationship.

2. LITERATURE REVIEW

In this section, the similar studies devoted to the relationship between government education expenditures and economic growth are reviewed. There are a vast of studies in economics literature investigating the relationship between education expenditures and economic growth. Empirical studies conducted by Landau (1983), Barro (1991), Tamang (2011), Mayer (2001), Bloom et al. (2001), Wolff (2001), Bose et al. (2007), Blankenau et al. (2007), Erdoğan and Yıldırım (2009), Petrakis and Stamakis (2002), Riasat et al. (2011), Asteriou and Agiomirgianakis (2011), Li and Kong (2012), Idrees and Siddiqi (2013), Koc (2013), Selim et al. (2014), Mekdad et al. (2014), Owusu-Nantwi (2015), Otieno (2016), Mallick et al. (2016) and Sunde (2017) concluded a positive relationship between education expenditures and economic growth. Furthermore, studies by Devarajan et al. (1996), Ndiyo (2007), Nurudeen and Usman (2010), Mariana (2015) and Eggoh et al. (2015) found a negative relationship between education expenditures and economic growth. In some studies, like Nketiah-Amponsah (2009), Griliches (1997), Çetin and Ecevit (2010), Pamuk ve Bektaş (2014), relationship between these two variables was not determined. Li and Kong (2012) empirically investigated long-term relationship between education spending and economic growth for China.

Their findings are very similar to Mallick and Dash (2015), where both studies found that there is one-way causality relationship between government education expenditures and economic growth. In another research for Bangladesh, Mukit (2012) revealed that government education expenditures has significantly positive long-term effects on economic growth for the period of 1995-2009. Moreover, Idrees and Siddiqi (2013) for G-7 countries, Mallick et al. (2016) for 14 Asian countries also found similar results. In addition, in a recent study over the period of 1976-2016, Sunde (2017) found a long term relationship between education expenditure and economic growth as in Mukit's (2012) research. Otieno (2016) investigated the impact of education expenditure per worker on economic growth for Kenya over the period of 1967-2010. The results revealed that education expenditure per worker has a positively and significantly impact on economic growth in both long term and short term. As can be seen from the literature review, no study has investigated the impact of government's education expenditures on economic growth in the case of Azerbaijan. Therefore the objective of the current study is to fill in this gap by utilizing VECM approach and different cointegration tests to observe long-run cointegration. The findings will suggest policy makers to take into account the role of government's education expenditures in economic growth for macro prudential regulation and sustainable development purposes in Azerbaijan and also contribute to the empirical literature for further studies in the case of similar countries.

3. MODEL AND DATA

3.1. Data

Our study uses annual data over the period 1995-2017 for empirical analysis. All data set have been taken from World Development Indicators of World Bank (WB, 2018) and The State Statistical Committee of the Republic of Azerbaijan (The State Statistical Comitee of Azerbaijan, 2018). Government expenditures on education (EDU_EX) is measured in million constant US dollars. Economic growth (Y) is measured by real GDP (2010 US $). All the variables have been transformed into natural logarithmic form for consistent and reliable empirical results.

3.2. Methodology

We analyze relationship between energy consumption, economic growth and financial development using the different cointegration techniques and VECM method framework in this study. Our empirical analysis will cover the following stages. First, we will check non-stationarity characteristics of variables. We will use the Augmented Dickey Fuller unit root test (Dickey and Fuller, 1981, ADF) for this exercise. Since this test is widely used one, we do not describe it here. Interested readers can refer to Dickey and Fuller (1981). Second, if the orders of integration of the variables are the same, then we will apply cointegration tes(s) to see whether they are cointegrated. In order to be on the safe side, we will follow the latter option and hence, use the Johansen test (Johansen, 1995) as it is the only test can produce proper. Third, if we find only one cointegrated relationship among the variables, then alongside the Johansen method we will also use other alternative cointegration and long-run estimation methods to increase robustness of our inferences on the long-run relationship. For this exercise, we employ Dynamic Ordinary Least Squares (DOLS), Canonical Cointegrating Regression (CCR), Fully Modified Ordinary Least Squares (FMOLS) which is based on the residual-based cointegration method developed by Engle and Granger (1987). Lastly, After confirming the presence of cointegration between the variables, we will apply the Vector Error Correction Model (VECM) to investigate the long-run relationship among the variables. If between variables does exist one cointegration, the first-best solution would be using VECM model. The above mentioned methods are widely used techniques in similar studies, we do not describe them.

3.3. Empirical results and Discussion

First, we should check the stationarity properties of the used variables. As mentioned in the methodology section, for this purpose, we use the ADF unit root test. Results of unit root testing are presented in Table 1. We found that the variables are non-stationary at their levels but they are stationary at first difference, being integrated of order one, *I(1).* We thus conclude that our variables are non-stationary in levels but stationary in their first differences. In other words, they follow integrated of order one, I(1), processes. Our conclusion that the variables are I(1) allows us to proceed to the cointegration test.

Table 1: Results of ADF unit root tests

Variable	Panel A: Level		Panel B: 1st difference		Result
	k	Actual value	*k*	Actual value	
Y	0	-0.861223	0	-3.445613**	İ(1)
EDUEX	0	0.905844	1	-2.811665*	I(1)

*Notes: Maximum lag order is set to two and optimal lag order (k) is selected based on Schwarz criterion in the ADF test; *, ** and *** accordingly indicates rejection of null hypothesis at 10%, 5% and 1% significance levels; critical values are taken from the table prepared by MacKinnonun (1996). Time period: 1990-2015.*

To apply the Johansen procedure, the optimal lag number should first be chosen. A Vector Auto Regressive (VAR) model was initially specified with the endogenous variables of *Y* and *EDUEX* and a pulse dummy[1]. The details of this test were explained in table 2. A maximum of two lags was initially considered and both lag selection criteria and lag exclusion tests statistics suggested that indeed a lag of order two was optimal, which is intuitively appropriate given the small number of observations in the sample.

Table 2: Lag Interval Tests

		Information Criteria				
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-9.629284	NA	0.010969	1.162928	1.262502	1.182366
1	38.40702	81.66171*	0.000135	-3.240702	-2.941982	-3.182388
2	44.52990	9.184322	0.000111*	-3.452990*	-2.955124*	-3.355801*
3	46.70444	2.826911	0.000139	-3.270444	-2.573432	-3.134380

** indicates lag order selected by the criterion*
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Panels A through D in Table 3 report that the VAR has good properties as it is stable, its residuals have no issues with serial correlation and heteroscedasticity problem and residuals are normally distributed. The Johansen cointegration test results from the transposed version of the VAR, which is the VECM with one lag, are presented in Panels E and F of Table 3.

[1] We used a pulse dummy taking on unity in 2008 and zero otherwise, to capture the jump of *Y* in 2007 and the effect of the recent financial crisis.

Table 3: VAR residual diagnostics, stability and cointegration tests results

Panel A: Serial Correlation LM Test [a]

Lags	LM-Statistic	P-value
1	3.014	0.555
2	2.765	0.597
3	4.634	0.326
4	1.786	0.774

Panel B: Normality Test [b]

Statistic	χ^2	d.f.	P-value
Jarque-Bera	2.544	4	0.636

Panel C: Heteroscedasticity Test [c]

White	χ^2	d.f.	P-value
Statistic	32.24	24	0.120

Panel D: Stability Test [d]

Modulus	Root
0.959923	0.959923
0.636985	0.041 - 0.635i
0.636985	0.041 + 0.635i
0.545367	0.545367

Panel E: Johansen Cointegration Rank Test (Trace)

Null hiphthesis	Eigenvalue	Trace statistics	0.05 Criticial value	P-value
None *	0.575805	18.87043	15.49471	0.0149
At most 1	0.040200	0.861638	3.841466	0.3533

Panel F: Johansen Cointegration Rank Test (Maximum Eigenvalue)

Null hypothesis:	Eigenvalue	Max-Eigen Statistic	0.05 Criticial value	P-value
None *	0.575805	18.00879	14.26460	0.0122
At most 1	0.040200	0.861638	3.841466	0.3533

Notes: a The null hypothesis in the Serial Correlation LM Test is that there is no serial correlation at lag of order h of the residuals; b The Normality Test is the Urzua (1997) system normality test with the null hypothesis of the residuals are multivariate normal; c The White Heteroscedasticity Test takes the null hypothesis of no cross terms heteroscedasticity in the residuals; d VAR stability test results show that no roots of characteristic polynomial are outside the unit circle; is the Chi-square distribution; d.f. stands for degree of freedom.

Both the trace and the max-eigenvalue test statistics indicate one cointegration relationship among the variables. Therefore, we conclude that there is a cointegrating relationship among the variables. From the Johansen cointegration test results, we couldn't reject the hypothesis of one cointegration relationship. We also employed the Engle-Granger type DOLS, FMOLS and CCR methods to test whether the variables are cointegrated. The test results revealed that the variables are cointegrated (to save space we do not report the test results but they are available upon the request). Finally, we estimate FMOLS, DOLS and CCR methods as a further robustness check alongside the VECM in estimating the long-run coefficients. We bring together the estimated long-run coefficients from all the four different methods for the comparison purpose in Table 4.

Table following on the next page

Table 4: Estimation and testing results from the different cointegration methods

Method	VECM	DOLS	CCR	FMOLS
		Panel A: Long-run equations		
Regressor	Coef. (Std. Er.)	Coef. (Std. Er.)	Coef. (Std. Er.)	Coef. (Std. Er.)
EDUEX	1.142 (0.013) ***	1.151 (0.117) ***	1.128 (0.020) ***	1.132 (0.021) ***

Panel B: Residuals diagnostics tests results for VECM

$Q_{AR(2)}$	2.544 [0.863]
LM_{SC}	3.241 [0.518]
χ^2_{HETR}	16.06 [0.587]
JB_N	4.993 [0.288]

*Notes: Dependent variable is GDP; Coef. and Std. Er. denote coefficient and standard error; *, ** and *** indicate significance levels at 10%, 5% and 1%; Probabilities are in brackets; Q_(AR(2)) = Q-statistic from testing AR(2) process; 〖LM〗_SC = Lagrange multiplier statistic of serial correlation test; χ_HETR^2 = Chi-squared statistic for heteroscedasticity test; 〖JB〗_N = Jarque-Bera statistic for testing normality; In VECM, Jarque-Bera statistic was taken from the option of Orthogonalization: Residual Correlation (Doornik-Hansen).*

As it can be seen from the Table 4 the long-run coefficients from the different methods are statistically significant. Additionally, the residuals of the estimated specifications successfully pass the residuals diagnostics tests which is another indication of the robustness of the estimation results. We give priority to the VECM and discuss it little bit in detail as it outperforms all its counterparts when there is one cointegration relationship between variables, which is the case in our research here. Table 4 reports the impact of government education expenditures on economic growth in long run. We find that EDUEX has a positive and statistically significant impact at 1% level on economic growth. The results reveal that a 1% increase in government education expenditures, increases economic growth by 1.14%. Our results are consistent with the findings of Mukit's (2012) for 14 Asian countries, Idrees and Siddiqi (2013) for G-7 countries, Owusu-Nantwi (2015) for Ghana, Otieno (2016) for Kenya for Kenya and Sunde (2017) for Mauritius.

4. CONCLUSION

The study examines the relationship between government expenditures on education and economic growth. For this purpose, different cointegration techniques (Johansen, DOLS, FMOLS and CCR) and the VECM method were used to estimate the long run relationship among the variables. Our empirical evidences confirm that cointegration exists among the variables. This implies that there is a long run relationship between economic growth and government expenditures on education in Azerbaijan. Results of the estimations revealed that government education expenditures has statistically significant, positive impact on economic growth. This implies that 1% increase in EDU will increase economic growth 1.14%. The main finding and related policy implication of this study are a concerted effort should be made by policy makers to boost educational investment in order to accelerate economic growth.

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STRUCTURAL ANALYSIS OF NON-OIL SECTOR FIELDS IN THE REGIONS OF THE REPUBLIC OF AZERBAIJAN

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ABSTRACT

As a result of the transition of the economy of the Republic of Azerbaijan to the post-oil stage in modern condition, its future development is largely connected with the socio-economic development of the regions. In its' turn, the great potential of the non-oil sector development and socio-economic development of our country are focused on the regions of the country. At present, the regions of Azerbaijan are on the threshold of being a leading power in the development of the national economy of our country. The development and diversification of the non-oil sector in the regions of Azerbaijan will generally create the basis for the country's economy in order to reduce dependence on oil revenues, increase the level of employment in the country and its transition to the sustainable development conception. The SWOT analysis of the sustainable, competitive and diversified conditions of the regions based on concrete materials have been revealed, evaluated and assessed on the basis of priorities of the non-oil sector in the regions. Over the past 15 years, the development and diversification of the non-oil sector in the regions has been implemented on three regional development programs adopted in the country. For this purpose, large financial support was provided for the development of the non-oil sector in the regions from the state budget, as well as from other financial sources, extensive tax, customs, loan concessions and subsidies. Sustainable development in the regions caused to the consistent growth of economic and social indicators, balanced development of the balancing growth rate, on the one hand, and improving level of development on the other hand. Taking into consideration, the adoption of "Strategic Road Map on Major Sectors of the National Economy and economy" will provide the competitiveness, inclusiveness and further improvement of social well-being of the economy on the basis of national economic development and sustainable economic development of the regions. The directions of improving the conceptual framework for the development of targeted state programs in different spheres and directions are being developed on the basis of structural analysis of non-oil fields in the regions of Azerbaijan. As a result of the carried out research, specific proposals and recommendations have been put forward for the development of the non-oil sector, diversification and stimulation of increasing export potential in the regions of Azerbaijan.

Keywords: *strutural analysis, regions, non-oil sector, sustainable development, diversification, national economy, transition, regulation, export*

1. INTRODUCTION

An effective and sustainable development of the economic structure, including the economic structure of the regions, is essential for the balanced development of the national economy. It should be taken into account that the great progress made by Western European countries in economic growth is linked to the successful changes in the structure of the country and the regional economy, because these changes have given the overall dynamism to the production process in the country and has led to some other positive changes. Generally, social division of labor is a continuous process, where the main branch structure of the economy is formed. It is complex and dynamic, subject to quantitative and qualitative changes by the affect of scientific-technical progress, cyclical development of the economy and other factors.

On such a basis it is worth mentioning that the regional structure of the economy is considered in two aspects:

- Placment of economic fields in the territory of the country;
- region system with its internal structures in the territory of the republic.

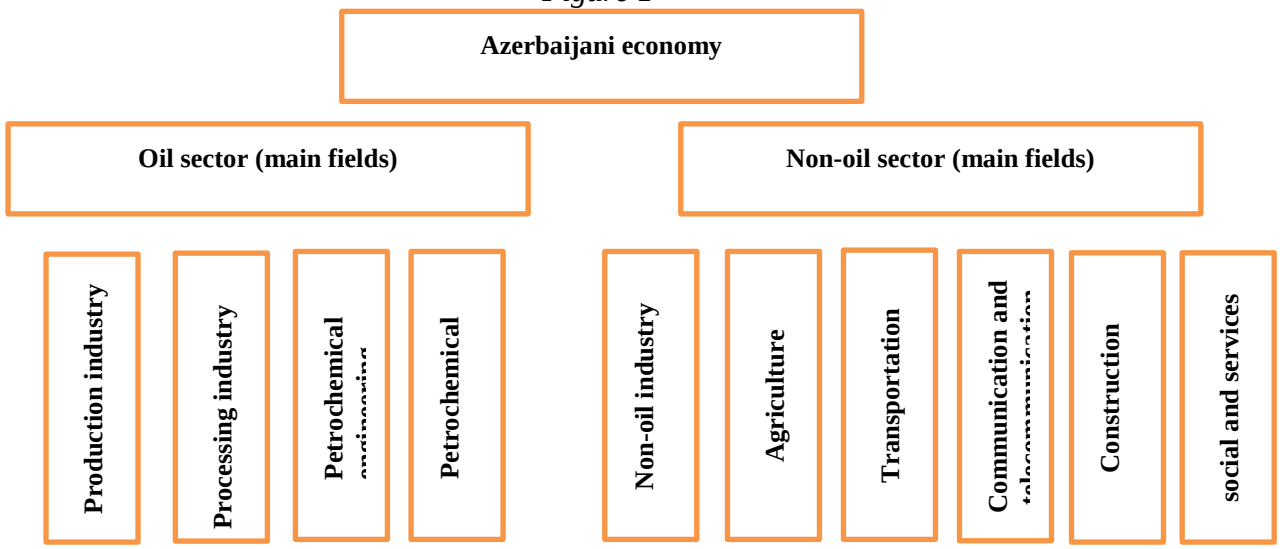
It should be specially mentioned another issue that the formation of an efficient regional economic system depends primarily on the efficient use of all available natural and socioeconomic resources in the region. All this happens on the same ground that national economies are constantly changing and exposed to transformation processes. The strongest effect on the processes is the scientific-technical progress. Scientific and technical progress changes the character of production, creates new economic fields and spheres, and affects the character of mutual relations in the national economy. For this reason, the structure of the national economy is constantly changing, which, in turn, implies continuing structural monitoring and the need to compare the real economic structure with its future development perspectives. The structure of the specific national economy is shaped by the influence of many factors: geographical, cultural, social, economic. It should be noted that one of the most important tasks for the regions is to achieve mutual development of economic fields, production and social infrastructure, complex solution of social and economic development issues. Territory of each region is the most important ground and a condition for productive forces deployment, as well as for the creation and functioning of production areas using mineral and raw materials, labor and natural resources.

2. THE REASONS FOR THE PROBLEM OF NON-OIL SECTOR DEVELOPMENT IN THE REPUBLIC OF AZERBAIJAN

The Azerbaijani economy has been under the strong influence of the oil factor for almost two centuries. It is known that most of the national production of the country, including the products exported from the country, is made up of oil and oil products. This situation necessitates the increase in the overall weight of export products produced in the country at the same time the share of other industries in the total weight of export products. Therefore, the modern economic policy of the Republic of Azerbaijan is primarily aimed at diversifying the economy, reducing dependence on the oil sector, and achieving dynamic development of the non-oil sector. According to the State Statistics Committee of Azerbaijan, 92.7% of the exported products are exportion of oil and oil products. At the same time, 75% of all industrial products produced in the country is on the account of state budget and 50% is on the account of oil sector. [5]. According to UNCTAD estimates, Azerbaijan's economy is among the countries with dependence on energy resources [9]. 93% of state budget funds come from the capital city and 7% come from regions [5]. That's why when analyzing the structure of the economy of Azerbaijan in the main economic spheres, assessments are generally carried out on the basis of the division of the economy into two important sectors.I oil sector and II non-oil sector. The reason for such a situation was inherited from the Russian Empire and Soviet era. Azerbaijani economy has developed disproportionally on fields and regions [4]. The solution of elimination of issues of these problems, in parallel, brought about the simultaneous solution of these two problems. These are the issues of eliminating the inter-regional and inter-sectoral disproporsional development levels in the national economy. The radical changes taking place in the socio-political and socio-economic life of the Republic of Azerbaijan during the years of independence also covered the economy of the regions of the republic. It was accompanied by quality changes in the economy of the country, including the regions during transition to the market economy. However, not all of these issues were resolved immediately. The most serious problem was that most of the country's industrial potential was mainly concentrated in Baku, and then partly in Sumgayit, Ganja and Mingachevir.

Such a situation creates a serious impediment to the development of the national economy as a whole and to regional aspects. As a result of Armenian aggression, the problems were aggravated by the destruction of the cities and villages of the republic, the occupation of those territories, the deportation of the Azerbaijanis and the damage to the national economy.

Figure 1



Source: Made by author.

Under such conditions, there is a need to identify the current economic development opportunities of the Azerbaijani economy, weak and strong sides, challenges and threats to develop the country's economy, including the non-oil sector of the regional economy.

Table 1: SWOT analysis of modern state of Azerbaijani economy.

Strong sides	**Macroeconomic** • Availability of mineral resources • Specialized workforce; • High level edication • Political stability • GDP growth rate at high pace • **Sectoral and Regional** - Having a favorable natural climate and fertile geographical position in agriculture and livestock areas. - Having a natural, historical and cultural wealth that benefits the development of tourism. - Fertile condition for the production of agrarian and livestock products as a raw material for the food industry.
Weak sides	• weak development of the processing industry in the non-oil sector; • Low level of rural income; • Market limitations; • absence of direct access to EU, US, Japanese markets;
Opportunities	• The possibility of using oil revenues in other areas; • Production of competitive products with the application of modern technologies; • The development of the economy by attracting investments
Dangers	• Oil price decline; • Economic crisis • Financial crisis • Decrease in competitiveness of Azerbaijani products • decrease in the level of life of the country's population

Source: Made by author

As seen, in the context of the current state of the economy of the republic it is required to diversified development of the economy of Azerbaijan in certain directions:

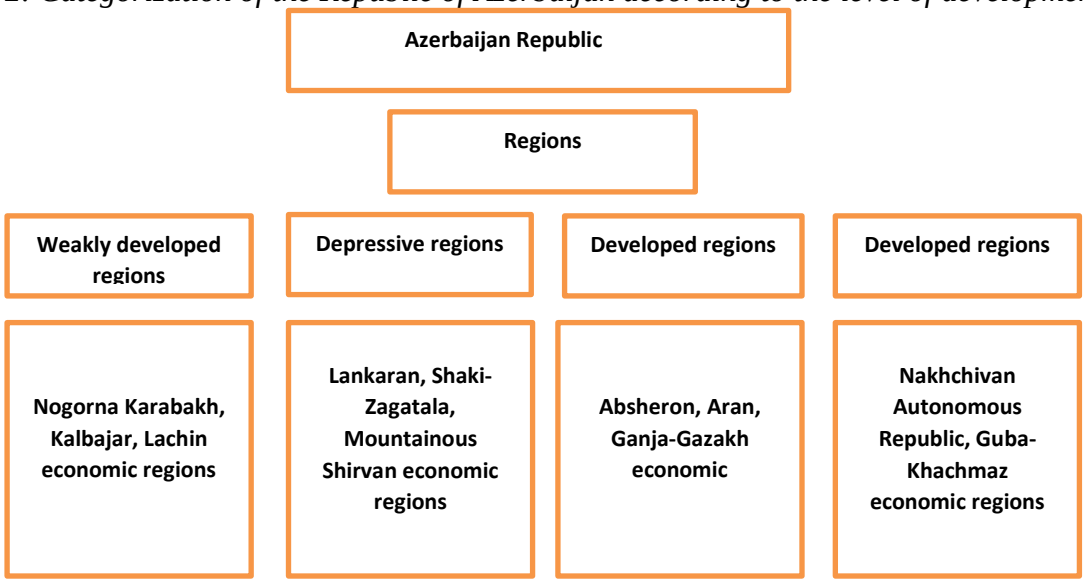
- Diversification of GDP should be based on non-oil sector;
- Diversification of export should be based on the export of innovative products;
- Diversification of institutional security should be based on natural, physical, human and institutional capital;
- The process of diversifying the regional economy should be further deepened, and the potential for disproportionation between oil and non-oil sectors should be sought in the regional economy.

Accordingly, it should be noted that the main trends of the "Azerbaijan 2020: Look Into the Future, Concept of Development" include the non-oil sector, in particular, has been specifically identified as one of the strategic aspects of the non-oil sector development of the regional economy.

3. THE REASON FOR THE NECESSITY OF THE DEVELOPMENT OF THE NON-OIL SECTOR IN THE REGIONAL ECONOMY

The territory of the Republic of Azerbaijan is currently divided into the following economic regions. Absheron economic region; Aran economic region; Highland Shirvan economic region; Guba-Khachmaz economic region; Lankaran economic region; Nakhchivan Autonomous Republic; Shaki-Zagatala economic region; Upper Karabakh economic region; Kalbajar-Lachin economic region.

Figure 2: Categorization of the Republic of Azerbaijan according to the level of development



Source: made by author.

Based on the assessment of the current state of the regions of the Republic of Azerbaijan, they can be divided into the following categories:

- Developed regions - Absheron, Aran, Ganja-Gazakh economic regions;
- Developing regions - Nakhchıvan Autonomoous Republic, Guba-Khachmaz;
- Poorly developed regions - Lankaran, Shaki-Zagatala, Mountainous Shirvan;
- Depressive regions - Nagorno-Karabakh, Kalbajar-Lachin economic regions.

It should be noted once again that special attention was paid to the non-oil sector development in the Republic of Azerbaijan since the early 2000s. The goal here is to further develop the national economy in the context of eliminating economic issues and interregional disproportions in the republic. In order to achieve these goals, many programs have been developed and implemented, containing the strategic priorities of the state policy in the Republic of Azerbaijan. Accordingly, it would be expedient to make assessments on the non-oil sector development issues in the regions of the Republic of Azerbaijan within the State Program.

4. SOLUTION DIRECTIONS OF NON-OIL SECTOR DEVELOPMENT ISSUES IN THE REGIONS OF THE REPUBLIC OF AZERBAIJAN WITHIN STATE PROGRAMS

Many State-funded State Programs have been developed and implemented to ensure macroeconomic balance and sustainable development in the early years of independenceThe following State Programs may be specially mentioned for the sample: [6]:

- State Program for the Support of Small and Medium Entrepreneurship in the Republic of Azerbaijan" (*1997-2000*)";
- State Program for Development of Small and Medium Entrepreneurship in the Republic of Azerbaijan (2002-2005)";
- "State Program for the Development of Machine Building industry in the Republic of Azerbaijan (2002-2005)";
- "State Program of Agrarion Sector in the Republic of Azerbaijan (2002-2006)";
- "Demographic development conception of Azerbaijan Republic";
- " State Program on Tourism Development in the Republic of Azerbaijan in 2002-2005";
- " State Program on Poverty Reduction and Economic Development in the Republic of Azerbaijan (2003-2005)";
- " State programs of socio-economic development of the regions of the Republic of Azerbaijan (2004-2018)" (I State Program 2004-2008; II State Program 2009-2013; III State Program 2014-2018).
- On March 16, 2016, according to the decree of the President of the Republic of Azerbaijan, 12 strategic roadmaps on the national economy and 11 sectors of the economy can be elaborated on the approval of the "Main Directions of the Strategic Road Map on Major Sectors of the National Economy and Economy" [1].

The above-mentioned State Programs generally reflect the regional development aspects of the non-oil sector of the national economy. The main objective of the regional development strategy, developed and successfully implemented in the Republic of Azerbaijan, is to restore the balance between regional and economic development levels effectively using oil and gas revenues and to achieve a number of socio-economic problems.` The problem of development of the non-oil sector, which has more prospects for development in the regions of the republic, has been raised. From this point of view, it should be noted that the main objective of the State Program on Socio-Economic Development of the Republic of Azerbaijan (2004-2008), approved by the Decree of the President of the Republic of Azerbaijan dated on February 11, 2004, is the sustainable development of the non-oil sector, provision of balanced development of the regions of the country, improvement of communal services and social infrastructure in the regions, employment, living standards, etc. Within the framework of implementation of the program, the following results are considered in 2004-2008. In the first regional development program, the provisions of the Optimization of the Specialization in the Republic of Azerbaijan and the deployment of productive forces were reflected. 714 state measures were implemented on this basis 668 events were dedicated to socio-economic development of nine regions of the

Republic of Azerbaijan. Funds were allocated for the implementation of important infrastructure projects. As a result of the implementation of a number of relevant measures, the package of projects for the balancing of the development of the country's territory and the development of the non-oil sector in the regions was formed. At this stage 26641 new enterprises were opened, 547600 jobs were created - permanent jobs were created [2]. Then, the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2009-2013 was approved by the Decree of the President of the Republic of Azerbaijan No 80 of April 14, 2009 for the continuation of the measures taken since 2004. As a result of the successful implementation of the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan in 2009-2013", a high level of macroeconomic indicators has been achieved in the country and successful results have been achieved in improving the living standards of the population in socio-economic development.
More than 240 decrees were signed on accelerating socioeconomic development of cities and districts included in all economic regions during implementation of both state economic programs in the Republic of Azerbaijan. Execution of these programs for the non-oil sector was 2.6 times higher in this sector [10]. The Second State Program (2009-2013) envisaged the development of the agrarian sector of the country, production, social and market infrastructure in regions, and the elimination of unemployment in specific territorial structures of the national economy. At this stage 1066 large-scale projects were implemented, of which 968 were covered by economic regions. The remaining 40 projects covered Baku and the surrounding districts [8]. The State Program's Action Plan envisages implementation of 1066 measures throughout the country, including 58 of the country's significance, 40 in Baku and 968 in economic regions, which have been fully realized in the current period. As a result of carried out measures, the regions of the Republic of Azerbaijan were provided with continuous energy and drinking water. At the same time, construction and rehabilitation of roads and other infrastructure facilities were carried out. Environmental conditions in the regions have been significantly improved, and many social objects have been put into use in education, health and tourism. Only 5,400 enterprises, 117,000 new jobs and 93,000 new jobs were created within the program in 2012. Totally 20,000 new enterprises were created in Azerbaijan in 2009 and 360,000 jobs were created in the regions. Unemployment reduced by 5.2%, poverty by 6%. For the next four years, the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018 was approved by President of the Republic of Azerbaijan Ilham Aliyev's Decree of February 27, 2014. The initial version of the State Program was prepared by the Ministry of Economic Development in line with the offers submitted by the relevant agencies to the Ministry of Economic Development on the basis of an official appeal submitted to local and central executive authorities in September 2012; The state program on socio-economic development of the next regions will be adopted in 2019 [11]. Accordingly, it would be expedient to review some of the processes in the non-oil sector in the regions of the Republic over the last 15 years.

5. REGIONAL ASPECTS OF CHANGES AND PROCESSES IN THE NON-OIL SECTOR OF THE AZERBAIJANI ECONOMY

The main priorities in the development of the non-oil sector in the country are the development of the agrarian sector in ICT, tourism, transport and energy (in particular, alternative energy production). 44% of the population of the Republic operates in these areas. Over the last 15 years, 60% of 100 billion investment in the country has been invested in the non-oil sector [7].

Table following on the next page

Table 2: Investments in main capital on oil and non-oil sectors

Years	Total	Including			
		Oil sector		Non-oil sector	
		Total	Special weight %	Total	Special weight %
2003	3786366.7	2771092.1	73.2	1.015274.6	26.8
2004	4922755.9	3.7081384	75.3	1.214617.5	24.7
2005	5.769876.3	3756167.6	65.2	2.013708.7	34.8
2006	6234483.7	3408512,5	54.7	2825971.2	45.3
2007	7.471.189.9	3.529.865.3	47.2	3.941324.6	52.8
2008	9.944.153.8	2.922.414.7	29.4	7.021739.1	70.6
2009	7.724944.8	2.058349.8	26.6	566595.0	73.4
2010	9.905665.8	29584901,7	29,9	6.947.174.1	76.1
2011	12799061,3	3070236,0	24.0	9728825,3	76,0
2012	15407274,4	3854.477,8	25.0	11.552796.6	75.0
2013	17.850.815.7	5.094617.8	28.5	12756197,9	71.5
2014	17.618.601.1	5.959.403.1	33.8	11.659.198.0	66.2.
2015	15.957028.2	7.137.136.8	44.7	8.819.819.4	55.3
2016	15.772725.0	8648028.6	54.8	71124797.2	45.2
2017	17.430.339.5	843.950.6	48.7	8946.388.9	51.3.

Source:https://www.stat.gov.az.

As seen from the table, In the last 15 years, more exactly, since 2003, investments in the main capital of both sectors of the Azerbaijani economy have grown almost every year. Starting from 2007, non-oil capital investment in capital investments has become more than the oil sector. Such a trend is still going on. This means that productivity in the non-oil sector can be solved by solving the problems of economic development. At the same time, it should be noted that, as a result of the state programs implemented in the last 15 years, the country's gross domestic product increased by 0.1 percent to 70135.1 million manat in 2017. The most important point is that 62.8% of the GDP was produced in the non-oil sectors of the economy and 37.2% in the oil and gas sector. During this period, the value added in the oil sector of the economy decreased by 5.0 percent, in the non-oil sector - by 2.7 percent, including transport and warehousing - by 8.5 percent, information and communications - by 6.6 percent, 5.9% in catering, 4.2% in agriculture, forestry and fishing, trade; 2.5 per cent in the field of repair of vehicles, 1.5 per cent in social and other services. At the same time, production of non-oil products increased by 3.7 percent compared to the same period of the previous year, and added value added in this area rose by 3.8 percent. 40.1 percent industrial production of GDP, 10.4 percent in trade and transport, 9.5 percent in construction, 6.8 percent in transport and storage, 5.6 percent in agriculture, forestry and fishing, 2.3 percent the share of tourists and public catering, 1.6 per cent for information and communication, and 16.4 per cent for other sectors, while net taxes on product and import accounted for 7.3 per cent of GDP [12]. Naturally, special attention was paid to the regional aspects of non-oil sector development in the republic. On such a basis, it should be taken into account that in the contemporary period, the regional structure of the economy of the Republic of Azerbaijan is assessed in the context of the analysis of key indicators of economic regions by sectors. The regional structure of the republic's economy has grown to some extent about a century of historical development. During these years, the main driving force of the process was the solution of the problem of economic zoning of the country. From the 20s to the 90s of the XX century, the concept of regional governance was first developed based on Soviet management requirements, then new established, young and independent economic management requirements and criteria of the Republic of Azerbaijan. The development of non-oil production sphere has become a priority for the creation of new jobs in this concept, in particular, in order to make the country more efficient use of regional

resources. The intensive stage of the implementation of this approach is intensified even during the implementation of regional development concepts. The opinion is confirmed by the quantitative indicator of newly opened enterprises in the Republic of Azerbaijan, including in the regions in 2003-2017 (see Table 3.)

Table 3: Information about newly opened enterprises (on years)

İqtisadi rayonlar	2004	2005	2006	2007	2008	2004-2008	2009	2010	2011	2012	2013	2009-2013	2014	2015	2016	2017	2014-2017	2004-2017
Ölkə üzrə cəmi, o cümlədən	4921	5516	5123	5145	6867	27572	5314	4296	5137	5417	7879	28043	9130	6266	8012	11934	35342	90957
Bakı	2916	3326	3040	3144	4236	16662	3482	2608	3159	3252	4293	16794	4720	3373	5089	6840	20022	53478
Regionlar üzrə cəmi, o cümlədən	2005	2190	2083	2001	2631	10910	1832	1688	1978	2165	3586	11249	4410	2893	2923	5094	15320	37479
Abşeron	320	287	242	268	448	1565	302	296	390	391	514	1893	690	508	594	1204	2996	6454
Gəncə-Qazax	311	246	251	246	404	1458	267	229	274	309	552	1631	637	338	348	436	1759	4848
Şəki-Zaqatala	144	196	195	152	192	879	172	188	186	249	413	1208	493	190	218	309	1210	3297
Lənkəran	200	204	198	265	215	1082	175	228	268	256	591	1518	622	679	368	287	1956	4556
Quba-Xaçmaz	84	119	149	142	150	644	116	98	127	106	204	651	359	121	233	621	1334	2629
Aran	440	562	498	539	943	2982	614	477	527	690	991	3299	1117	744	917	1821	4599	10880
Yuxarı Qarabağ	144	105	81	109	116	555	73	55	90	82	133	433	126	109	61	172	468	1456
Kəlbəcər-Laçın	61	43	31	23		158	8			1	4	13	8	9	123	185	758	1503
Dağlıq Şirvan	35	102	72	47	95	351	56	60	74	60	144	394	298	152	3	5	25	196
Naxçıvan	266	326	366	210	68	1236	49	57	42	21	40	209	60	43	58	54	215	1660

Source: Regional development: results of successful policy//Ministry of Economy of the Republic of Azerbaijan//https://www.economy.gov.az/

37479 new enterprises were launched in the regions of the Republic of Azerbaijan in the process of implementation of the State Program on the development of the regions, the old enterprises are modernized with the new equipment.

6. RESULT

Non-oil sectors in the regions of the Republic of Azerbaijan: Production and processing of agricultural products (non-oil, food, light industry, food industry, agrarian industry), are carried out in the directions of especially non-oil; construction industry enterprises; construction of objects of socio-economic infrastructure (roads, housing, education, cultural-educational, healthcare etc.); in some areas. All these measures, in parallel, once again confirm the development of human capital in the republic and the social orientation of state policy.

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INNOVATIVE PROCESSES AS A FACTOR OF ECONOMIC DEVELOPMENT

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ABSTRACT
The article substantiates that there is a deep relationship between economic development and the innovation sphere. An important distinctive feature of modern economic development is the increasing influence of science on production, along with the growth of the reverse influence of the economic environment on scientific and technical activity. It has to be noted that the deep source of the fundamental socio-economic and technical transformation of society in the modern era is the intensive development of innovative processes.
Keywords: *economic development, innovation processes, scientific and technical progress, innovation activity*

1. INTRODUCTION

The development and dynamism of the innovation sphere - science, new technologies, knowledge-intensive industries - have become the main factor of economic development, the basis of the competitiveness of firms, sectors of the national economy. On the basis of the use of knowledge and innovation, the so-called "new economy" has received accelerated development. The use of technology and technology in production has become the leading force of social progress. In the upcoming future, the level of economic development of the national economy, its place in the civilized world will be determined not so much by an abundance of labor and mineral resources, but by the quality of human capital, level of education and practical use of knowledge, innovative potential of the economy. In the globalizing world, those countries that provide favorable conditions for accelerating the scientific, technical and information revolution, for unhindered use of its latest achievements, will win in the growing competitive struggle. The priority is the state policy of strengthening the scientific and technical potential of introducing innovative developments, comprehensive support for the enhancement of science, education and modern technologies. It is necessary to accelerate the transition to an innovative development model focused on the latest achievements of science and technology.

2. INNOVATION AS A PROCESS OF IMPLEMENTATION OF NOVELTY

Intensive improvement of the national economy has created wide opportunities for implementation of the latest achievements of the scientific, technical and information revolution in the country, accumulated in the world over the past decades of the experience of rational organization of innovation activity and encouragement of enterprises to apply innovations. Investing in innovation is not everything. The main thing is to introduce novelty, to turn it into a form of innovation, i.e. complete innovation activity and get a positive result, then continue the diffusion of innovation. Innovation can be characterized as a process of implementing a novation. At the same time, innovation doesn't mean just an object embedded into production, but an object successfully introduced and making a profit as a result of conducting scientific research or a discovery made qualitatively different from the previous analogue. Depending on the object and subject of research, innovation can be viewed as a process, system, change, and as a result. Innovation should be focused on a more complete satisfaction of consumer demand in a constantly changing market conditions. Each product produced should be considered as an object of constant change.

Competitors need to be studied not only as rivals, but also as possible sources of ideas. The transformation of scientific knowledge into innovation is an innovation process, that is, a consistent chain of events in which innovation matures from idea to a specific product, technology or service and is distributed through practical use (Ivaschenko N.P., 2016, p. 14). In contrast to scientific and technological progress, the innovation process does not end with the so-called introduction — the first appearance of a new product, service in the market, or bringing of a new technology to the design capacity. This process is not interrupted even after implementation, because as diffusion (distribution) of innovations improves, becomes more effective, acquires new consumer properties. This opens up new areas of application for it, new markets, and, consequently, new consumers who perceive this product, technology or service as new for themselves. Thus, the innovation process is aimed at creating the market-required products, technologies or services and is carried out in close unity with the environment: its focus, pace, goals depend on the socio-economic environment in which it operates and develops. Robert Solow, Professor of Massachusetts Institute of Technology, Nobel Prize winner in economics, clearly noted that the source of long-term economic growth is not real estate and equipment investments, but technological changes. His calculations based on the materials of American statistics have shown that the assessment of the role of technological changes in the growth rates of private sector production reaches 60-70% (Romanchuk J., 2008, pp. 69–70).

3. TECHNICAL MODERNIZATION IS THE BASIS OF ECONOMIC DEVELOPMENT

In the long run, technological innovation is necessary to increase the efficiency of the economy and raise the standard of living. Creating them requires an investment climate that must be supported by the public and private sectors. This, in particular, implies sufficient investment in scientific research, especially from businesses, the creation of high-quality research institutes by the state, private sector cooperation in investigations of research institutes, universities and industry, as well as guarantees protecting intellectual property and potential investments. It should be noted that technology does not predetermine the development of society. But society also does not prescribe the course of technological change. However, society can, strangle the development of technology by using the power of state. Or, on the contrary, it can also, through government intervention, begin an accelerated process of technological modernization, capable of changing the economy over several years, increasing military power and social well-being. Nowadays technical modernization of the economy occurs in all countries. But there are huge differences in the scale, pace of intensity and results of this process. In some countries, technical modernization of various sectors of the economy has been an element of state-driven policy for many years, in others it only begins in certain sectors of the economy. But in all countries, technical and technological modernization and increasing innovative activities are an objective need for economic development, due to the causes of the internal and external order. Creating a domestic market for high-tech innovative products will allow on a large scale to "grow" their national high-tech and competitive companies (Milner B.Z., 2010, pp. 5-6). In this regard, the soonest creation and development of a competitive innovative economy is one of the top priorities for Azerbaijan.

4. THE PERSPECTIVE OF THE AZERBAIJANI ECONOMY IS ASSOCIATED WITH THE DEVELOPMENT OF INNOVATION ACTIVITY

In developed countries the intensity of innovation determines the level of economic development. In global competitive environment, the winners are the states which provide favorable conditions for innovative activity. Taking into account the rapid globalization, most of the countries of the world have begun to form a new technological structure of the

improvement of their own economies. An important process of transition from the industrial era to the information market has begun in the republic. It can be stated with confidence that this last transition is actually decisive.Independent Azerbaijan began to implement profound socioeconomic and institutional-economic transformations and faced the choice of the most promising areas of state policy, defining new outlines of society. Thus, it is absolutely clear that the socio-economic perspectives of Azerbaijan, its place in the world economic space depend not only on the effectiveness of creating a favorable economic and investment climate in the country and on creating conditions for the development of competitive sectors of the national economy, but also on how successfully it moves to an innovative economy.In the 21st century, in the postindustrial world and in the context of deepening globalization of economic processes, the security of a country and its technological independence are determined by scientific and technical potential, high qualification of personnel and innovative opportunities. In numerous scientific studies on the problems of socio-economic development, there are two strategic directions:

1. The continuation of market reforms with a commodity-oriented economy, which will continue to characterize the country as an agrarian and raw material appendage of the industrial centers of the world;
2. The intensification of economic transformations based on the stabilization of the political and legislative legal system, the new socio-economic strategy aimed at diversification of economy, as well as the effective integration of the country into the world economy.

At the present stage, as the world experience shows, the effective is a new innovative way of economic development, suggesting the interconnected development of scientific, technical, industrial, financial, social, institutional and other spheres. It is absolutely clear that the implementation of such a large-scale strategy is possible only with the broad state protectionism of scientific and technological development, providing a socially-oriented technological breakthrough. In conditions when the scientific and technological revolution is expanding more and more widely, economic development involves the maximum use of its results, particularly, in the form of technology as an independent factor of production. The close relationship between economic growth and scientific and technological progress, the need of improvement of the competitiveness of the entire economy, necessitates the urgent activation of innovation activities in our country. The underlying causes and mechanisms of economic development are, firstly, competition based on innovation, and, secondly, the creation of human innovator-entrepreneur, capable of translating new ideas into effective economic solutions. At the same time, the perspectivesfor socio-economic progress of Azerbaijan in the context of intensive integration with the world market, as a result of the consistent implementation of the "open economy" policy, to a decisive extent depend on the state's targeted activities in creating a favorable innovation climate, creating and maintaining competitiveness of existing and newly created promising industries.For the revival of the national economy in the global world, it is necessary to clearly understand the decisive role of science and innovation in ensuring the competitive advantage of the country.As in the 21st century the country's security and its technological independence will be determined by the scientific and technical potential, primarily, by the level of basic science, personnel skills and innovation potential. In order for the Republic of Azerbaijan to occupy an equal place in the global economic environment, it is necessary to strictly take into account the peculiarities of the development of the modern era, consisting in the unprecedented improvement of science and technology. World experience shows that the national state can play an important role in enhancing the internal and international competitiveness of domestic industry through the formation of innovative activities. Impulses of innovation can be internal, for example, physical wear of equipment, the need to reduce energy costs, the traditional desire to expand production capacity.

In those enterprises where there has been a change in the owner and management of an enterprise, institutional changes have become the reasons for innovation, specifically, a change in the form of control over the enterprise. But any initiatives that are born in the enterprise are adjusted by market restrictions. Market needs are the main external impulse of innovation in enterprises, whether it is the response to the loss of traditional sales markets, the search for their place in a competitive market and the identification of new market opportunities. If innovations generated from within are mostly process-based, then the orientation of enterprises towards the market pushes them towards productive innovations.At the same time, innovations can be initiated by external causes of non-market properties - social needs in a broad sense, which degenerate in the social policy of the state or the speeches of social movements. The opening of the Azerbaijani market for exports stimulated the improvement of quality and expansion of the product range, forced to sell it at lower prices than imported counterparts. The competition from local small producers has increased. With the acceleration of the globalization process, modern technical means and technologies inevitably penetrate into the most remote corners of the globe. To tell the truth, this is not only modern technology, but also new forms of management. The observed economic growth in the republic is based on increasing the export of petroleum products, but nevertheless, the stabilization of the socio-economic and financial situation in the country and the transition to consistent economic growth created the conditions for the development of the scientific and technical sphere. In recent years, the coordinating role of scientific activity in the republic has increased. Statistics show that innovation, as one of the leading areas of industrial modernization in the country, has gradually begun to intensify. It should be noted that innovation activity in the republic is carried out mainly in medium and large industrial enterprises. At the same time, it is encouraging that the most of the innovative products are new or undergo significant changes. As for products undergoing improvement, their share is very small. The reason for this situation, in our opinion, is that enterprises producing intermediate products (component parts and parts for other industries) have found themselves in a strong dependence on the position of enterprises - consumers of their products, the volumes of their production and pricing policy. Therefore, innovations in such enterprises are associated with the development of the production of new products, which is the ultimate and can be implemented. The main factors hindering innovation in local enterprises are:

- Lack of own funds;
- Lack of financial support from the state;
- High cost of innovation;
- Low effective demand for new products, high risk;
- Long payback periods of innovations.

Innovation barriers are also related to the following production factors: low innovative potential of the enterprise, lack of qualified personnel, lack of information about new technologies, lack of enterprise ability to innovate, lack of opportunities for co-operation. In order to activate innovation activity, it is necessary to form an organizational-economic mechanism, which is a combination of organizational and economic methods, tools and levers, in order to develop the capabilities of the enterprise and allowing to manage the innovation sphere (Goncharenko MA, Dubravina L.I., 2015, p. 104). To increase the innovation activity of enterprises, it is necessary to use tax instruments. Enterprises that produce new competitive equipment and use advanced technologies should apply preferential taxation of property (for example, to fully exempt them from property tax in the first year of their activity, 50% in the second, 30% in the third, 20% - in the fourth). In addition to providing tax breaks, innovative enterprises and organizations should be stimulated through effective depreciation policies. The amortization fund for innovative reproduction serves as a financial source not only for recovery,

but also for the expansion of fixed assets. Thus, the transition of the economy to a new qualitative position determines the importance of activating innovation, solving the problems of forming the innovative potential of the country, allowing to reorganize the economy, accelerate the development of high-tech production, which should become the most important factor in ensuring conditions for economic growth. As a result of the acceleration of technological progress in the world, our country has opened up tremendous opportunities for its socio-economic development based on the acceleration of innovation activity.

5. DEVELOPMENT OF INNOVATION POLICY OF AZERBAIJAN FOR THE INTENSIFICATION OF INNOVATION ACTIVITY

The dynamic development of the innovation sphere is one of the main components of the innovation economy, the main feature of which is that the processes of creation, dissemination and introduction of new knowledge become crucial for the development of the country, ensuring a harmonious combination of economic growth with the preservation of the natural environment and social progress (Zadumkin, K.A, 2010, p. 6). Innovation economy implies the existence of an effective innovation system and the creation of institutions to support the innovation process. The state innovation system is understood as a set of interrelated organizations (structures) engaged in the production and commercialization of scientific knowledge and technology within national boundaries, small and large enterprises, universities, laboratories, techno parks and incubators as a complex of institutes legal, financial and social in nature, providing innovative processes (Shabelnikova E.A., 2017, p. 79). The challenges of the development of an innovation system create needs of the integrated use of direct and indirect methods of state regulation in the framework of innovation policy, which is an integral part of government policy, designed to ensure consistency in the field of international scientific and technical cooperation in science and technology in the new environment. Innovation policy is a part of the socio-economic policy, defining the goals and priorities of the innovation strategy, and the mechanism for its implementation by state authorities. Innovation policy of the government should consist of the search for optimal ways of improvement of society; identifying promising industries, their financial aid, the economic regulation of innovation processes; organizational, legal and other support for the earliest possible introduction into the sphere of production and services of the achievements of science and technology (M.A. Nikolaev, M.Y Mahotaeva, 2013, pp. 40-41). For the country as a whole, the innovation strategy is the significant goals of technological development, determining the direction of priority financing, creating an intellectual and information structure for designing, encouraging management to maximize the use of human resources, updating the legislative framework of the innovation sphere, primarily in the field of taxation, and restructuring of the scientific sphere with the release of the innovation sector, which is engaged in searching for the most effective completed research projects that can be implemented. The complexity of developing of an innovation strategy lies in the fact that the innovation sphere is inherently multidimensional (it includes elements of various levels) and it is a control system in relation to technology. Since representatives of not only various specialties, but also various government bodies are involved in innovation activity, the search for successful solutions requires coordination of their efforts. The following are principles of the formation of an innovation strategy which can be used in Azerbaijan:

- The strategy of "building up" - uses its own scientific, technical, production and technological potential with the involvement of foreign experience. With rational use of the results of fundamental and applied science to increase the production potential, the output of new competitive products expands, high technologies which are used in production and the social sphere are processed.

- The strategy of "borrowing" - uses the innovative potential of their own country, mastered the release of high-tech products produced in developed industrial countries. Further, production is increased on the basis of the development of scientific, technical and industrial potential, as a result of which there is an opportunity to independently carry out work on the entire innovation cycle - from creation to the sale of innovative products.
- The "transfer" strategy - foreign scientific, technical and industrial-technological achievements in the country's economy are used by purchasing licenses for highly efficient new technologies for mastering the production of new generations that are in demand abroad. Subsequently, the country develops its own scientific, technical and industrial potential, ensures the restoration of the entire cycle - from basic research and development to the production and sale of competitive products in the country's markets and abroad.

It should be noted that a common moment for all these strategies is the intensification of innovation activities and the achievement of new economic frontiers. The difference in strategies is determined by the financial, material and technical capabilities of the state and the ratio of the achieved levels.

6. CONCLUSION

The transfer of the Azerbaijani economy to an innovative development path requires the development of state innovation policy aimed at the effective use of national resources along with the use of foreign innovation technologies, managerial experience and financial resources. To assess the role of science and technology in social progress, the formulation and implementation of national goals a new approach is required. Only in this case the state policy in the sphere of science and innovations will be the priority direction of its activity. Science should constantly be used to assess the state of the domestic economy, analyze the consequences of government decisions, program and forecast economic and scientific and technological development. It should be noted that a rational combination of public and private sectors in some cases will allow to use effectively the basic elements of the strategy of "borrowing", since the scientific and technical potential of the country has not been lost, that will intensify innovation, increase the production of high-tech competitive products. The same conditions and limitations are characteristic for the "build-up" strategy. It can be successfully applied in individual industries of the real sector of the economy and the military-industrial complex. The use of the "transfer" strategy in Azerbaijan is rather difficult due to the limited resources and the unsatisfactory state of the domestic material and technical base of production. The strategy of the state innovation policy of Azerbaijan should be built differently for the industries of the real sector of the economy and for industrial production, i.e. maximize competitive advantage. The priority of the chosen innovation strategy should be quickly recouped innovative projects in implementation ofwhich the state can jointly participate on a share basis with private investors, taking on some of the risks. To develop an innovation strategy that takes into account the current state of the Azerbaijani economy, it is necessary to create:

- An innovation system that accumulates and analyzes the experience of innovation (monitoring) in various sectors of the economy;
- A permanent interdisciplinary working group on the development and formation of the concept of an innovative strategy;
- The interdisciplinary intellectual center analyzing the condition of the innovation process in Azerbaijan and in the industrialized countries of the world in order to develop tactics and strategies for solving innovative situations.

The problem of formation of innovation policy has such an important aspect as the development of an innovative strategy for the future, which should be formed not only taking into account the existing conditions and own interests, but also taking into account the interests of developing innovation policy for a sufficiently long period of time. In modern conditions and in the future, maximizing the innovation factor becomes the decisive condition for the sustainable development of modern economic systems.

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NEW HUMAN-MACHINE RELATIONS REQUEST A NEW PARADIGM: UNDERSTANDING ARTIFICIAL INTELLIGENCE

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ABSTRACT
We make decisions based on our aspirations. We don't choose between experiences; we choose between memories of experiences. And even when we think about the future, we don't think of our future normally as experiences. We think of our future as anticipated memories. And basically, you can look at this, you know, as a tyranny of the remembering self, and you can think of the remembering self-sort of dragging the experiencing self through experiences that the experiencing self doesn't need. This paper demonstrates how to build a knowledge-base which contains a decision-maker's aspiration. Our environment, the context of the decision, can only affect what is stored in our long-term memory (LTM). We retrieve what is in our LTM through the working memory (WM). Organizing our aspirations can be supported by an artificial intelligence (AI) algorithm. We developed a Knowledge-based System shell, namely Doctus KBS. It can generate a Case-Based Graph classifying the cases acquired from the domain expert. This Graph does not show dependencies, but the if-then rules induced by processing the cases. The if-then rules may be read from the root of the graph towards its leaves, where the value of the outcome is shown. The storing of experience in knowledge-bases and the discernment of the if-then rules serve the necessary sharing of knowledge. It would be useful if the recognition of thinking patterns and the if-then rules between aspirations were included in smart tools. The great benefit of the Case-Based Rule Reasoning is the reduced size, i.e. the significantly decreased number of the attributes. In the old paradigm it is a question of what AI can still know. The new paradigm could be the question of how working memory could make up deficiencies.
Keywords: *Artificial Intelligence, Decision maker's mind-set, Expert System*

1. INTRODUCTION

Organizations where people work cannot change faster than their people. Based on the currently dominant paradigm, the slow, clumsy and easily exhausted human receives a machine, which will allow the ceaseless and fast production of something (Baracskai, Dörfler, 2017). Production doesn't just mean consumer products, but also Excel tables or operation control models. People can only be taught to make machines and then to be able to operate them. Few believe that an Artificial Intelligence (AI) algorithm should be anything other than a tireless and flawless manual worker. AI algorithm development is currently in its normal, puzzle-solving phase, and a paradigm shift is not on the horizon, as AI is currently touted and pampered. This does not lead to AI algorithm users being ready for a paradigm shift where they can redefine the human-machine relationship (Varga, Velencei, 2018). As long as people are assigning their defined operations to machines they designed, it is the same people's resistance to the paradigm shift that will define the working speed of an organization.

2. PARADIGM SHIFT: AI ALGORITHMS CANNOT DECIDE THEIR OWN LUCK

As long as we are stuck in the same paradigm of the human-machine relationship, nothing will happen other than the speeding up of current processes. The research of the human-machine relationship is in its pre-paradigm age, and we have been unable to recover from the victory of the management theory of Frederick Taylor in the past hundred years. "For they do disappear to a very considerable extent and then apparently once and for all.

Furthermore, their disappearance is usually caused by the triumph of one of the pre-paradigm schools, which, because of its own characteristic beliefs and preconceptions, emphasized only some special part of the too sizable and inchoate pool of information" (Kuhn, 1970, p. 17). If, however, the human-machine relationship is also in a normal phase, then we must await the revolution. This means new questions are needed. The easiest answer seems to be, that AI is unable, and will remain so, to tell whether it is time for the paradigm shift or not; in other words, an AI algorithm cannot decide its own luck. Let this be the argument to support that an AI algorithm cannot introduce itself into a system. It is not hard to imagine that resistance towards those trying to instigate a paradigm shift will grow, especially when more delicate questions come up. In the old paradigm, it is a question of what AI can still know. Concepts and the methods themselves are still from the old textbooks, and only heretics dare tamper with an elegantly solved puzzle. We never needed to fear, nor do we need to now, that the old solutions become useless; it is possible, that they were already useless. They seemed to work, but not anymore. The new paradigm could be the question of how working memory could make up for deficiencies. Let us look at this idea through the lens of Agile Project Management. Agile Project Management can succeed better in a culture that "thrives on chaos" than in one that "thrives on order" (Highsmith, Cockburn, 2001). If deadlines, outputs and costs have to be pre-defined, then the project cannot have more outcomes, depending on whether stakeholders would redirect the development mid-stream. The positivist paradigm by itself may not be too limiting to understand the basic questions of human-machine relations such as (1) does AI lend any support for non-algorithmic processes, such as Agile Project Management and (2) will people accept that super-fast AI algorithms will be able to replace the bottleneck of natural intelligence and working memory, and nothing else. "Effective research scarcely begins before a scientific community thinks it has acquired firm answers to questions like the following: What are the fundamental entities of which the universe is composed? How do these interact with each other and with the senses? What questions may legitimately be asked about such entities and what techniques employed in seeking solutions?" (Kuhn, 1970, p. 4). Commitment to deterministic processes strengthens resistance. "Normal science, for example, often suppresses fundamental novelties because they are necessarily subversive of its basic commitments. Nevertheless, so long as those commitments retain an element of the arbitrary, the very nature of normal research ensures that novelty shall not be suppressed for very long" (Kuhn, 1970, p. 5). During a phase of normalcy, members of the community converse undisturbed. "These doubts about progress arise, however, in the sciences too. Throughout the pre-paradigm period when there is a multiplicity of competing schools, evidence of progress, except within schools, is very hard to find. This is the period described in Section II as one during which individuals practice science, but in which the results of their enterprise do not add up to science as we know it. And again, during periods of revolution when the fundamental tenets of a field are once more at issue, doubts are repeatedly expressed about the very possibility of continued progress if one or another of the opposed paradigms is adopted" (Kuhn, 1970, p. 163). If we define the word researcher narrowly, then the work is reduced to measurements and re-confirmation of existing rules. In our definition, a researcher is looking for new conceptual models. AI can provide help in transforming planned development processes. If one is able to wriggle out of the dominant schools of the pre-paradigm age, or of 'normalcy', where the question will not be about how to cut costs, then perhaps a development process will last as long as it needs to.

3. TENTATIVE SOLUTION: UNDERSTANDING WORKING MEMORY

Popper (1972) originally conceptualized the Tentative Problem-solving process when he recognized the following model:

$$P_1 \rightarrow TT \rightarrow EE \rightarrow P_2 \rightarrow$$

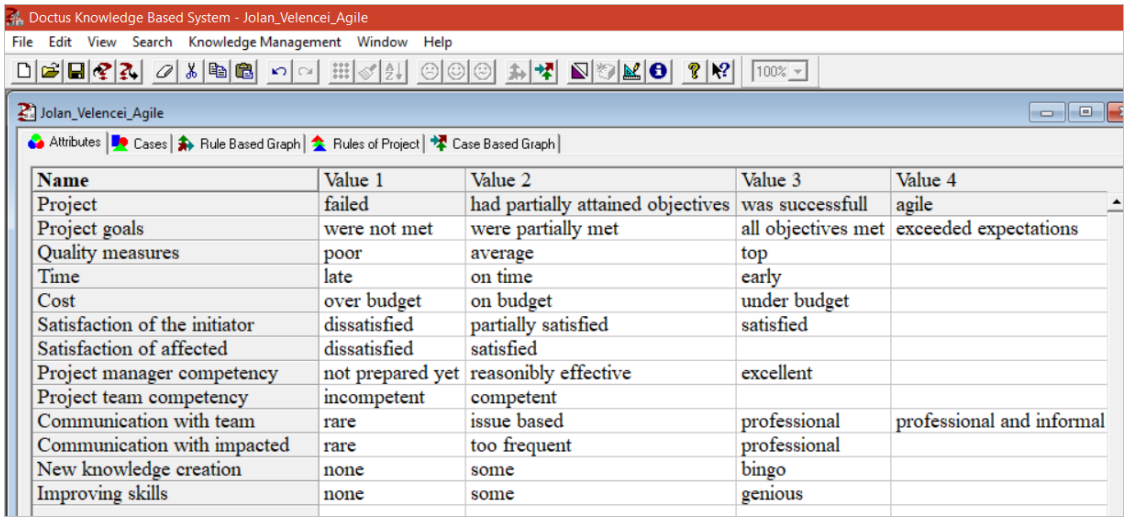
As Popper explained P_1 is the initial problem situation, TT is the first tentative solution, which is followed by EE, namely error elimination. In this phase there are some rival solutions which are needed critical examination. P_2 is the new problem situation so this phase the critical discussion arises. In this paper, new solutions to human-machine relations are being tentatively seeking in the field of Agile Project Management. When a paradigm shift happens, the old textbooks touting the old paradigm puzzle solutions are replaced. New books will shift focus onto forming new questions. If we look at the journals of human-machine relations, we see no movement or shift: the most influential academic journal, the Computers in Human Behavior dedicated to examining the use of computers from a psychological perspective, fills its issues with tiny measurements. Some books and/or TED talks are braver. Nick Bostrom Swedish philosopher in his TED2015 talk he said that "Now most people, when they think about what is smart and what is dumb, I think have in mind a picture roughly like this. So, at one end we have the village idiot, and then far over at the other side we have Ed Witten, or Albert Einstein, or whoever your favourite guru is. But I think that from the point of view of artificial intelligence, the true picture is probably more like this: AI starts out at this point here, at zero intelligence, and then, after many, many years of really hard work, maybe eventually we get to mouse-level artificial intelligence, something that can navigate cluttered environments as well as a mouse can. And then, after many, many more years of really hard work, lots of investment, maybe eventually we get to chimpanzee-level artificial intelligence. And then, after even more years of really, really hard work, we get to village idiot artificial intelligence. And a few moments later, we are beyond Ed Witten. The train doesn't stop at Humansville Station. It's likely, rather, to swoosh right by" (Bostrom, 2015). The AI algorithm-based Watson could win the Jeopardy Quiz Show (Saran, 2017). This means that it is able to search faster in its databases. Many AI-based algorithms, including Doctus KBS, are able to learn from experience (Velencei, 2017). The point is, that a machine learning algorithm will never have original ideas, it will only be faster. With certain algorithms, such as chess computers, there will not be much human resistance, but it will not open new windows for new questions, either. No matter which way we look, we end up in the same place. AI-based learning algorithms are able to improve human working memory. Our memory also tells us stories, in other words, what we have kept from our experiences is the story, as Daniel Kahneman the world's most influential living psychologist said in his TED2010 talk (Kahneman, 2010). He won the Nobel in Economics for his pioneering work in behavioral economics in says in 2002. It would be a mistake to think about supplementing our long-term memory (LTM) with a computer memory, as the problem is not storage. It does not matter whether we cannot search in our LTM or on the hard drive of the computer. The searching and organizing itself is the bottleneck. Following the dominant paradigm, the clumsy, slow and tired man gets a machine to quickly and capably build something. Humans can only be taught to construct the machine and then operate it. A decision-support tool is better when it listens and "thinks" more and talks less. It is a false belief that the more data it provides, the better it is. Currently existing and continuously constructed knowledge-bases allow the observation of the emergence of certain thinking patterns which describe the experiences of the decision-maker. The recognition of these patterns leads to decisions becoming transparent and explainable. It is impossible to improve humans in the area of LTM, and so AI will have no role to play there. The ever-growing masses of data, such as those available from the internet, are searchable and storable without AI. No matter how we approach it, we will find ourselves at the conclusion: AI-based algorithms are able to improve human working memory. Well, Agile Project Management is also a way of improving human intelligence, more specifically, human working memory (WM). "The process is transparent to everyone. Team members hold brief daily "stand-up" meetings to review progress and identify roadblocks.

They resolve disagreements through experimentation and feedback rather than endless debates or appeals to authority. They test small working prototypes of part or all of the offering with a few customers for short periods of time. If customers get excited, a prototype may be released immediately, even if some senior executive isn't a fan, or others think it needs more bells and whistles. The team then brainstorms ways to improve future cycles and prepares to attack the next top priority" (Rigby et al., 2016, p. 43). It is hard to understand why there is large resistance in this field, even though we have demonstrated noteworthy results over the past thirty years. It is unimaginable that the knowledge of a single expert would be enough for the functioning of all business processes within a company. The building of knowledge-bases inspires decision-makers to talk to each other and to share knowledge. It can be a quick way of finding out which decision-makers are indispensable and irreplaceable. We should take good care of them! "That doesn't mean that computers now have tacit knowledge, or that they've started to think the way we think, or that they'll soon be able to do everything people can do. They don't, they haven't, and they won't. Artificial intelligence is not human intelligence. People are mindful; computers are mindless. But when it comes to performing demanding tasks, whether with the brain or the body, computers are able to replicate our ends without replicating our means" (Carr, 2014, p. 25). The next steps of tacit probing will be on the foundation of WM augmentation with machine learning and its understanding.

4. ILLUSTRATION: BUILDING A KNOWLEDGE BASE BY DOCTUS KBS

Currently existing and continuously constructed knowledge-bases allow the observation of the emergence of certain thinking patterns which describe the experiences of the decision-maker. The recognition of these patterns leads to decisions becoming transparent and explainable. It is unimaginable that the knowledge of a single expert would be enough for the functioning of all business processes within a company. The building of knowledge-bases inspires decision-makers to talk to each other and to share knowledge. It can be a quick way of finding out which decision-makers are indispensable and irreplaceable. We should take good care of them! In this study a projects evaluation is used for illustration. The interviewed experts had a lot of experiences in managing projects, so they after finishing them they could tell the Knowledge Engineer the result: 'failed', 'had partially attained objectives', 'was successful' and 'agile'. "An experienced decision maker is capable of organizing their knowledge into knowledge bases with the help of a Knowledge Engineer" (Velencei, 2017, p. 869). The aspects of the knowledge domain, which are called attributes in Doctus KBS, are listed on the «Attributes» pane as Figure 1 depicts. Each attribute consists of its name and its values to define the categories of the aspect. The values are symbols (i.e. words or expressions), for numeric aspects of domains a clustering algorithm is provided to transform them into symbols. The objects of the knowledge domain (i.e. the decision alternatives), which are called cases in Doctus KBS, are listed on the «Cases» pane.

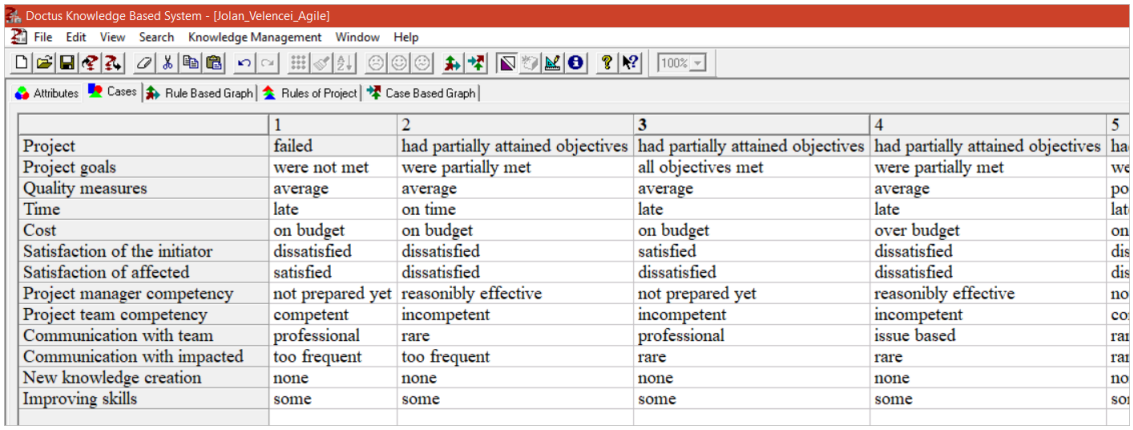
Figure following on the next page



Name	Value 1	Value 2	Value 3	Value 4
Project	failed	had partially attained objectives	was successfull	agile
Project goals	were not met	were partially met	all objectives met	exceeded expectations
Quality measures	poor	average	top	
Time	late	on time	early	
Cost	over budget	on budget	under budget	
Satisfaction of the initiator	dissatisfied	partially satisfied	satisfied	
Satisfaction of affected	dissatisfied	satisfied		
Project manager competency	not prepared yet	reasonibly effective	excellent	
Project team competency	incompetent	competent		
Communication with team	rare	issue based	professional	professional and informal
Communication with impacted	rare	too frequent	professional	
New knowledge creation	none	some	bingo	
Improving skills	none	some	genious	

Figure 2: Attributes in Doctus KBS (Screenshot by author)

Each case has a name and a case feature for each attribute to categorize the cases according to the aspect represented by the all attributes. Figure 2 depicts some four cases. At the end the interviewed experts evaluated 32 projects.



	1	2	3	4	5
Project	failed	had partially attained objectives	had partially attained objectives	had partially attained objectives	ha
Project goals	were not met	were partially met	all objectives met	were partially met	we
Quality measures	average	average	average	average	po
Time	late	on time	late	late	lat
Cost	on budget	on budget	on budget	over budget	on
Satisfaction of the initiator	dissatisfied	dissatisfied	satisfied	dissatisfied	dis
Satisfaction of affected	satisfied	dissatisfied	dissatisfied	dissatisfied	dis
Project manager competency	not prepared yet	reasonibly effective	not prepared yet	reasonibly effective	no
Project team competency	competent	incompetent	incompetent	incompetent	co
Communication with team	professional	rare	professional	issue based	rar
Communication with impacted	too frequent	too frequent	rare	rare	rar
New knowledge creation	none	none	none	none	no
Improving skills	some	some	some	some	so

Figure 3: Cases in Doctus KBS (Screenshot by autho)

Doctus KBS generates the Case-Based Graph classifying the cases acquired from the experts. The Case-Based Graph is a decision tree; it does not show dependencies but the if-then rules induced by processing the cases. The if-then rules may be read from the root of the graph towards its leaves, where the value of the outcome is shown (See Figure 3). For example if you read from the left side on the graph the if-then rules are:

- If Satisfaction of the initiator is dissatisfied and
- If the Project goals were not met
- Then the project was failed.

And if you read from the right side on the graph the if-then rules are:

- If Satisfaction of the initiator is satisfied and
- If the Project goals are exceeded expectations
- Then the project was agile.

Figure following on the next page

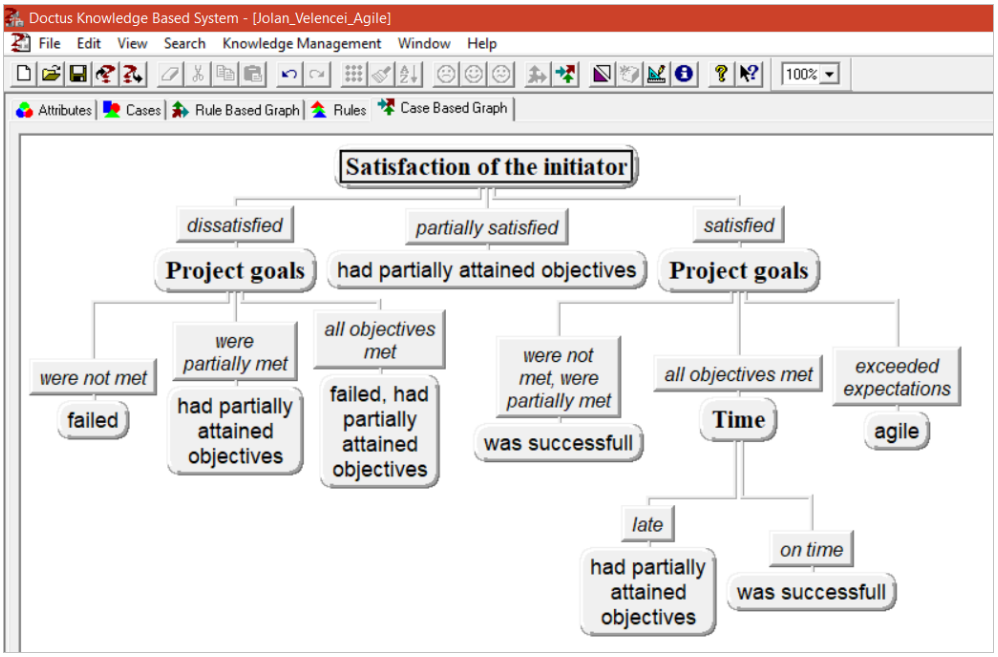
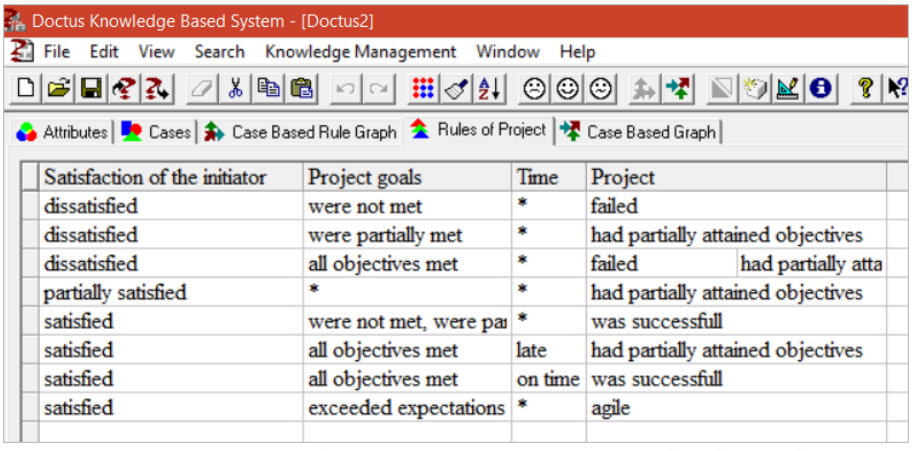


Figure 4: Case-Based Graph in Doctus KBS (Screenshot by author)

Once the experts accepted the Case-Based Graph, a new Rule-Based knowledge base can be created, which contains only the informative attributes but gives the same evaluation for the cases as the ones used for the induction of rules (Baracskai, 2017). The reasoning uses rules but they are induced from the set of cases, thus this type of reasoning is called Case-Based Rule Reasoning. As the knowledge base is generated automatically by reducing an existing model, it is also called reduction. It is easy to reason about new cases using the Case-Based Graph as well: the new case simply has to be positioned according to its features by the informative attributes. These attributes in this sample are Satisfaction on the initiator, Project goals and Time. Evaluation of new cases in Doctus KBS is facilitated with reduction. The result of reduction means that we know our informative or may I say relevant attributes so we can previously evaluate our future decisions. Figure 4 depicts the extract rules. The star (*) representing "Don't care". For example the last row means:

- If Satisfaction is satisfied and
- If Project goals are exceeded expectations and
- If values of Time don't' care
- Then Project should be agile.



Satisfaction of the initiator	Project goals	Time	Project
dissatisfied	were not met	*	failed
dissatisfied	were partially met	*	had partially attained objectives
dissatisfied	all objectives met	*	failed had partially atta
partially satisfied	*	*	had partially attained objectives
satisfied	were not met, were pa	*	was successfull
satisfied	all objectives met	late	had partially attained objectives
satisfied	all objectives met	on time	was successfull
satisfied	exceeded expectations	*	agile

Figure 5: Extract rules in Doctus KBS (Screenshot by author).

If during the fine-tuning of the reduced knowledge base implied changes of attributes and/or values, these changes should be applied to the Case-Based knowledge base as well, and the Case-Based Reasoning should be repeated. Fine tuning the Case-Based Rule Graph and using it as feedback some elements of the tacit knowledge can be acquire. "That doesn't mean that computers now have tacit knowledge, or that they've started to think the way we think, or that they'll soon be able to do everything people can do. They don't, they haven't, and they won't. Artificial intelligence is not human intelligence. People are mindful; computers are mindless. But when it comes to performing demanding tasks, whether with the brain or the body, computers are able to replicate our ends without replicating our means" (Carr, 2014, p. 25).

5. DISCUSSION

Whether still solving puzzles (before the new paradigm) or beyond them (revolution), new concepts, taxonomies and rules may emerge. It is impossible to achieve anything in the field of Agile Project Management if we are stuck in the cage of the old concepts, taxonomies and rules, and are seeking an optimal process answer. We have come to understand how the human-machine algorithm may be described according to the most informative expectations and have examined some projects. With the Doctus KBS learning algorithm, we were able to demonstrate some mind-set patterns. We have come to understand the things that would have remained stuck in LTM without the machine support of WM.

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AUDIT AS A KEY TOOL FOR BUSINESS KNOWLEDGE MANAGEMENT SYSTEM RESEARCH

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ABSTRACT

The possibilities of knowledge auditing in the conditions of the formation of the information society are discussed and systematized in the article. The peculiarities of development of methodology, organization and tools of knowledge audit that meets the modern needs of business audit development are evaluated. The question at issue is also that the audit of formalized knowledge fundamentally differs from the audit of non-formalized knowledge. As one of the main areas of business audit, knowledge audit is highly professional consulting services in a wide range of subject areas of economic, financial, legal and many other areas of modern business. Research of the demand for the specified direction of audit in the world community has shown that the lack of a coherent methodology impedes the decision to conduct knowledge audit. The article investigates modern approaches that allow combining the capabilities of modern business audit in general and information audit of information systems, operational audit, intellectual capital audit and knowledge audit in particular. The conclusion is that the merger of these types of audits into a single business audit shows a significant business effect. The practical significance of the article is that the conclusions and proposals are aimed at strengthening the role of the modern audit and contribute to the real optimization of modern business. The study conducted by the authors revealed that the new reality of the XXI century has changed the attitude to the traditional audit, requiring justification of the business effect in the implementation of new information systems and modernization of old ones, moving from complex automation of business processes to specialized solutions. Despite this, the demand for the development of business and IT-strategies and feasibility studies is steadily growing. Projects on the use of corporate knowledge at all levels of management are coming to the fore.

Keywords: *Knowledge audit, knowledge, corporate memory, knowledge management system, formal knowledge, informal knowledge, reengineering, optimization, intellectual capital, intangible assets, knowledge assets*

1. INTRODUCTION

In the context of the evolutionary transition of the world community from post-industrial to information development, modern business seeks to improve and strengthen its capabilities by strengthening the emphasis on modern and progressive management methodology, the so-called knowledge management methodology.

At the same time, the successful implementation of the knowledge management system (KMS) in the business is realized primarily in business systems, which with special attention relate to such aspects of the problems facing them as human and cultural, motivation of employees, changes in management methodologies, optimized business and IT processes that ensure the full exchange of knowledge between professionals with adjacent and sometimes completely unrelated competencies, exchange, continuously growing in volume and in time, information, as well as mutual collaboration. In general, the KMS is a set of conceptual apparatus, subject disciplines and tools for the organization of knowledge that allow managers to take responsibility for corporate knowledge and, on their basis, for effective management decisions. Increased use of knowledge by managers nowadays leads to the accumulation of valuable assets, improves its ability to make and implement effective management decisions. In practice, knowledge is divided into formalized, expressed in objects, words, numbers, graphic forms, drawings, specifications, textbooks, procedures, etc. and non-formalized, representing theoretical models, behavior and perspectives patterns, based on empirical data. However, to date, all efforts aimed at creating modern KMS in business, are limited, as a rule, only to the promotion of individual information technologies (IT) related to the introduction of modern software products allowing the solution only of certain aspects of this problem. In some cases, in the most developed business systems, these technologies are combined into a single information system for business of various levels of development. At the same time, the level of development of various information systems in different business systems is ambiguous and requires a permanent study of their condition and optimization. In the era of modern and very rapid changes of the XXI century, the transition to the information society, the old approaches to management, which guarantee the success of business for a long time, can not stop the gradual decline of its stability as internal contradictions and external threats from a very aggressive competitive environment. Static, not developing in time corporate memory becomes for business more and more distorted representation of the future, and the rules and procedures established in the business system begin to lose their importance in a permanently developing competitive environment (Gibbert M., Leibold M., Probst G. , 2002, 459-469). In this context, corporate memory is understood as an implicit or explicit in the business system interpretation of business processes or manufactured products, goods or services. At the same time, “Companies, along with people, remember the past, including old processes and procedures, as well as corporate traditions and values.” (Tom M. Koulopoulos, Carl Frappaolo, 1999, p. 114). Being in such situation, business often initiates radical transformations, based on reengineering, rebuilding their business and IT processes as well as business strategies for new economic conditions, the contemporary challenges and threats and at the same time destroying the established inner potential of their business systems. Thus, in the process of such business transformation management systems make a huge mistake, replacing outdated (in their opinion) at the moment corporate memory with new knowledge and practically stop there. No one will deny that for reengineering is characterized by a time-fixed view of the problem situation which undoubtedly leads to the fact that management decisions soon manifest themselves in the form of new and much more complex problems. This is mainly due to the inability to take into account the characteristic for modern markets, continuously progressive, and very rapid changes occurring in the competitive environment (Tom M. Koulopoulos, Carl Frappaolo, 1999, P.. 114). As a result, this knowledge also very soon becomes outdated. According to famous scholars and practitioners Thomas M. Kulopoulos and Carl Frappaolo and what we can not but agree, the power of modern business of the XXI century is not in the knowledge that were used in the past and obsolete, "...but in the ability to continuously update the repository of corporate wisdom and to use its content for new purposes" (Tom M. Koulopoulos, Carl Frappaolo, 1999, P.. 12). If the management system in modern conditions comes to the conclusion that it is necessary to use tools that allow the business system to get rid of its static

corporate memory, then we can safely assume that it is obvious for the system that at best reengineering provides only short-term success in the competitive environment for any business. And since, as part of a business strategy, the conditions of a permanently changing market are considered static to change, very soon the information from their repository, along with products and procedures, also becomes outdated. Unlike reengineering, KMS implies a constant readiness of the business to management impacts, stimulates permanent transformations and innovations at a speed that at least corresponds to the pace of modern development of the competitive environment. In order to remain successful and sustainable in today's constantly changing competitive environment, it is necessary to continuously accumulate historical knowledge and expand it in accordance with the demands of the future market, transforming corporate memory into corporate wisdom (Tom M. Koulopoulos, Carl Frappaolo, 1999, P. 116). In modern conditions, the cost of the products or services provided is determined not only by the spent physical resources, but also by the technologies used for this, as well as the scientific developments behind their production. Thus, a new, intangible form of resources - intangible assets - appears in business. At the same time a number of scientists and practitioners in the field of management have recently used the term "intellectual capital" of business to designate them (Novgorodov P.A., 2017, P.P.38-49). Intellectual capital can be defined as a set of all knowledge of an individual business's employees, ensuring its resistance to permanent challenges from the competitive environment, or as a set of intangible assets of an individual business that can be used to create the value of a consumer result. In the XXI century it has already been recognized that, as it was noted earlier, knowledge becomes the dominant means of achieving high social-economic results. The definition of knowledge as a business asset and, accordingly, the existence of the need to manage this type of asset are shown in the works of economists and practitioners in the field of management. Intellectual capital determines the competitiveness of business even in the conditions of the information society and thus becomes one of the key resources. For example, a well – known scientist in this subject area Thomas Stewart understands intellectual capital as all the knowledge of business, which can be considered an asset, and identifies in its structure three main elements-human, structural and consumer capital. At the same time, human capital is the knowledge, skills and creative potential of business employees. In addition, here, in his opinion, the culture of interpersonal relations should relate. Structural (organizational) capital – patents, licenses, trademarks, brands owned by a particular business, as well as hardware and software, organizational structure and methods of organization of business and IT processes. Consumer (client) capital is an information base about the clients of a particular business, including the evolution of relationships with them, as well as collaborations (Stewart T. A., 2001). In his turn, Karl-Eric Sveiby suggested his own approach to the consideration of elements of intellectual capital. In his opinion, it is necessary to define the competence of employees, the internal and external structures in it (Sveiby K.E., 2004). At the same time, under the competence of employees, a scientist means their abilities, including their education, qualification, experience, attitude to their functions and to the business in which they work. This element of intellectual capital depends on certain employees, and in the case of their departure from the business, the competence leaves with them. At the same time, the internal structure is nothing more than intangible assets owned by a certain business, giving it the opportunity to satisfy customer preferences. The internal structure usually includes business strategy, patents, know-how, information systems, information databases, organizational structure and documented business and IT processes. Finally, the external structure is the business relationship with counterparties. The external structure includes brands, trademarks, and image belonging to a particular business (Sveiby K.E., 2004). At the same time, it should be mentioned that these scientists do not quite clearly relate the objects of intellectual capital to a particular element of it. Thus, for example, Karl-Erik Sveiby considers the attitude to work to be the competence of the

employees, but the attitude to work is considered to be a part of the corporate culture of the business. The latter is referred to the internal structure (Sveiby K.E., 2004). This approach in its essence complicates the practical use of these theories for the formation and application of KMS. At the same time, these approaches to the definition of elements of intellectual capital can be used to value its status in a particular business and can be used as a starting point in the development of business strategy and management policy, as well as its development. Choosing one of the above as a working model, it is possible in the context of one business to develop a classification of intellectual capital objects for the purpose of subsequent control over them and develop on its basis ways of development of intellectual capital management. Nowadays, the theory of knowledge management has the greatest practical value in subjects of knowledge-intensive industries, for example, oil and gas, high-tech industries, in research and development business, in subjects whose business is associated with the provision of services that require highly skilled professional labor, for example, auditing, consulting companies, legal business, etc. At the same time, as it was mentioned earlier, without high-tech control it is impossible to assess the effectiveness of functioning of KMS in noted subjects. In the economy of the XXI century, the list of business systems whose success depends on the proper attitude to their knowledge is constantly enlarging. In huge business systems, there are separate structural units that are engaged in developing a new consumer result (products, goods or services), bringing them to the market, researching the market for their own consumer result, selling high-tech products, managing relations with counterparties. The knowledge of the employees of these structural business units is of great importance for the entire business [6]. The construction of modern efficient KMS allows to solve the problem of the distribution of the knowledge system among the interested business units, as well as among its regionally divided employees. KMS plays a special role in large, geographically distributed business systems with hundreds and thousands of employees. They inevitably have employees who perform similar functions and thus have different qualifications. KMS allows to use the experience and knowledge of successful structural units to improve the efficiency of similar functions of units in other business-owned geographical segments. With increasing attention to knowledge as the main organizational business asset and the creation of a special management system, it is important to understand how to measure, evaluate, account and monitor the effectiveness of management decisions and work performed on their basis in the new, non-traditional system of management of conceptual apparatus, policies and procedures. In addition, it is also important to continuously assess the impact of KMS on the business as a whole and its individual units. In the conditions of the information century, taking into consideration the needs of market participants, a preventive consistent and at the same time independent control of the entire asset of knowledge is necessary, focusing not only on the past but also on the present and especially on the future of the controlled business, erasing the boundaries between direct control functions and management consulting.

2. AUDIT OF NON-FORMALIZED KNOWLEDGE

According to well-known foreign scholars and practitioners, and with whom we can not but agree, the most acceptable tool that allows to professionally implement these functions in their asset is a modern audit, but not a traditional audit of financial statements, but a business audit in general (Tom M. Koulopoulos, Carl Frappaolo, 1999). It is business audit that includes the knowledge audit as a separate area. At the same time, the audit of knowledge in this context should be understood as a systematic independent scientific audit research of corporate knowledge, both past and present, and especially future (corporate memory and corporate wisdom) and the development of management recommendations for the business management system based on its results. In general terms the specified direction of the audit involves the performance of an audit of non-formalized directions, as well as special knowledge and

competencies of the employees of the business system and its corporate culture. It should be taken into account that the audit of formalized knowledge can be considered an audit of information, which examines explicit sources, documents, files, etc. In addition, the audit of knowledge in the XXI century can be considered as a key component of management decision-making regarding maintaining business stability in an aggressive and continuously changing competitive environment, investing, and developing new projects in terms of improving the KMS. At the same time, the starting point of business evaluation before the introduction of KMS, as well as other business initiatives in this area, is the audit of corporate memory (audit of the past, established in the business-system knowledge) of this system. According to the data of the specialist in the field of knowledge audit Ann Hylton, only 15% of developments on knowledge management are completed with adequate results (Andrusenko T.B. , 2007). At the same time, the main reason for failures in the implementation of KMS in business is the lack of prior knowledge audit. Without a prior knowledge audit, auditors are unable to identify the key business knowledge in its corporate memory. In addition, the lack of a coherent business audit methodology in general does not allow them to determine the proper approaches to identify the knowledge that is necessary for a particular business in the current time period, and, most importantly, in the current rapidly changing competitive environment, and especially in the strategic perspective. Therefore, auditors are not able to prepare specific and appropriate management recommendations for knowledge management for any modern business. At the same time, we can confidently claim that knowledge audit at the present stage of the development of business audit in general is a very complex and time-consuming scientific audit research, requiring high professionalism and competencies from the auditors themselves. In this case, it is necessary to constantly take into account that the goals in each specific audit assignment may be different and their achievement in auditing research of business knowledge is ambiguous. According to scientists and experts in the field of audit, knowledge audit should be carried out in the following cases:

- during the development of a business strategy in the field of knowledge management;
- when there are some significant difficulties in finding the necessary information or a competent specialist-expert in a particular subject area;
- when there is a duplication of information and knowledge gathering;
- when there are doubts about the value of any initiative related to the use of the information system, investments in certain programs or business projects;
- when there is a relatively low efficiency of implementation of the results of scientific research and experimental development (SR & ED);
- during the reorganization of the business, its merger and acquisition.

Thus, it can be stated with confidence that the knowledge audit conducted as part of a business audit can provide management recommendations for making management decisions at almost all stages of any business functioning.

During the conducting of knowledge audit, the auditor may:

- determine organizational aspects and readiness of business for non-traditional transformations;
- work out management recommendations for the development, adequate to the requirements of the competitive environment, business strategy in the field of knowledge management, creation or development of existing KMS;
- identify hidden reserves of non-formalized knowledge for further effective use by the management of the studied business;
- determine the structure of intellectual capital of the business and establish the most effective methods and procedures for its evaluation;

- identify and assess the probable loss of knowledge due to employees leaving the business;
- identify potential opportunities of creation the groups of the most competent practitioners in the business, producing certain knowledge;
- systematize the identified knowledge assets and develop an appropriate methodology for their assessment for management.

At the same time, it should be remembered that, in contrast to the traditional, generally accepted audit of financial reports, which mainly apply quantitative indicators for evaluating the effectiveness of management decisions based on standardized auditing procedures, it is necessary to use not only quantitative (formalized knowledge research) but also quality indicators based on the comprehensive use of heuristic methods, which are a special group of methods of collecting and processing data and information. Herewith, these methods are based on the professional judgment of a group of experts in various subject areas of the business being studied. In order to conduct knowledge audit, it is necessary to carry out a significant amount of work to create appropriate conditions for the preparation of the information base. At the same time, the fundamental task is to form in business an appropriate understanding of the importance and permanence of carrying out to improve the efficiency of KMS. In the theory and practice of audit it is generally accepted that the audit cycle for performing an audit tsk is traditionally implemented in three phases: planning, audit of the audit task itself and, finally, creation of accounting documents on its results. The implementation of these stages is not an exception in business audit in general and knowledge audit in particular. However, their content has its own specificity, inherent only in knowledge audit, and is determined mainly to the subject areas under study. The process of knowledge audit, like any other direction of audit, is a logical sequence of procedures performed by the auditor with the involvement of competent experts in a particular subject area in order to identify and assess the corporate memory and corporate wisdom of the business, and, as a result, the preparation of appropriate management recommendations for their effective use by business management. Thus, knowledge audit must pass all three of the above main stages, namely:

- planning of audit research;
- audit of the audit task;
- preparation of reports and appropriate management recommendations.

However, the specifics of knowledge audit, as well as the existing opinions of scholars and practitioners in the field of auditing, show that due to the fact that the main task of this audit study is to identify and evaluate probable reserves of knowledge, to optimize the functioning of a business, and to develop appropriate management recommendations, consequence, the auditor should ensure the irreversibility of the process of implementing these recommendations. Therefore, the next, and at the same time, a very significant stage in the audit of knowledge, should be considered as the stage of implementation of the results and audit management recommendations. And finally, knowledge audit cannot be considered complete if the auditor has not received sufficient and appropriate information on the impact of the implementation and use of business management recommendations based on the results of the audit. This stage can be defined as the stage of determining the effect obtained from the use of the results of knowledge audit. Thus, it should be recognized that the full cycle of knowledge audit is implemented in five stages from the planning stage to the results from the implementation of management recommendations. It should be mentioned that an important component of the knowledge audit, as it was earlier, is the individuality and atypicity of each studied business, its goals, as well as the need for close cooperation with its employees and the involvement of experts in various subject areas. Therefore, at the planning stage first of all it is necessary to assess the condition of KMS of the business system.

For this purpose, according to a number of scientists and practitioners, as well as the conducted studies suggest that the use of Capability Maturity Model proposed by the Software Engineering Institute by the US Department of Defense for classification and evaluation of projects related to software development and guaranteed quality compliance in the implementation of these projects (Kozlova I.V., 2016, P.P. 38-40). Assessment of knowledge by an auditor, built on Maturity Models, may serve as a qualitative component of the development of management recommendations for the practical implementation of the current and strategic management of the KMS in general and its constituent elements in particular (Andrusenko T.B., 2007). At the same time, compliance with one or another level of the Model allows to determine the readiness of a business for modernization or renewal. These models allow the auditor to determine the fundamental actions that will give answers to what needs to be done during the audit on the substance of the audit assignment, as well as to establish the condition in which KMS of the business is located. Taking as a basis the scale of Maturity Models, which is based on determining the level of development of the business and IT system as a whole and its KMS in particular from non-existent (level 0) to optimized (level 5), the auditor can determine:

- the current state of the business and its KMS, that is, to assess at what stage they are at the current time at knowledge management;
- the current status of the best practice in knowledge management in the industry in which the studied business operates, that is, to compare the specific subject studied by the auditor and its KMS with the best subject in the industry;
- the current status of the business and its KMS based on leading international practices;
- the status of the business and its KMS after their intended improvement, that is to evaluate its business strategy for the results that it seeks to achieve in the field of knowledge management for the long term.

After identifying critical points and weaknesses in the study area, Maturity Models allow the auditor to develop preliminary corrective recommendations and provide them to the management of the studied business. Then the auditor develops a strategy and tactics for taking the business in general and the KMS in particular to the desired level of knowledge management efficiency. It should be particularly noted that the nature and quality of the established relationship of the auditor with the managing and managed business systems depend on the conditions in which the audit of knowledge is implemented regardless of its thematic focus (general audit of knowledge, assessment of corporate culture, collection and systematization of non-formalized knowledge, interaction with business professionals leaving the business to identify their knowledge, the existing innovative aspect, proper training or retraining of business personnel, the effectiveness of the use of social networks, etc.). It is this approach to knowledge audit that will allow the most constructive implementation in the future of all management recommendations received as a result of the audit. Therefore, before the very beginning of the audit, it is necessary to:

- inform interested business employees about the aims and timing of the audit research;
- present to the management system the composition of the audit team and experts who are involved in the performance of the audit task;
- agree on all the powers to access any, including confidential information of the business and its key knowledge holders;
- to coordinate the duties and responsibilities of specific leading employees of the studied business and key knowledge holders;
- discuss the methodology for knowledge audit;
- answer all possible questions asked by employees of the business under study regarding the material aspects of the upcoming audit research.

At the same time, it should be borne in mind that before using Maturity Models, the auditor needs to identify the availability of knowledge resources and the needs of the business under study for additional knowledge assets. With this object, he needs to conduct an inventory of these assets, on the results of which he is to assess the level of the state of the business in general and its KMS in particular. When planning an audit of knowledge of a particular business, the auditor should take into account that it is necessary to subject virtually all its subject areas to an audit research. However, practice shows that the timing and scale of the upcoming audit does not allow to fully cover the entire business under study. Therefore, to improve the quality and efficiency of the audit cycle, it is necessary to preliminarily select the most significant aspects for the business, constantly supplementing and expanding the range of research both during the audit process on the substance of the audit task and in subsequent audit studies. This approach allows to optimize the resources available to the auditor during the detailed audit of business knowledge. Thus, it should be noted that the planning process should be carried out in three successive and correlated stages: preliminary planning (identification of significant areas of knowledge carriers for business), strategic planning (development of the strategy for the upcoming audit) and current planning (development of methodology and preparation of tools for the audit on the merits of the audit task). Despite the fact that each of these stages has its own characteristics and some effective individuality, however, their practical implementation is due to close interdependence, as any adjustments in one of them will necessarily lead to changes in the others. Therefore, when planning the audit of knowledge, it is necessary to follow the generally accepted principles of continuity, complexity and optimality. Starting the stage of a detailed audit on the merits of the audit task, as it was noted earlier, for the study of non-formalized knowledge, the auditor should provide for the possibility of using heuristic methods based on the admissibility, rationality and even satisfaction of the management recommendations prepared. The specified system of methods will allow to assess the qualitative indicators characterizing efficiency of functioning of KMS and as a result of management decisions. It should be considered that the use of heuristic methods for evaluation of non-formalized knowledge and KMS at a qualitative level when performing an audit of knowledge is due to:

- the qualitative nature of non-formalized knowledge;
- the significant uncertainty of the probability of their formalization;
- the current lack of technology that allows to construct and study a formalized model of this knowledge.

In this regard, the application of expert assessment methods (questioning, interviewing, etc.) by the auditor deserves attention. However, these methods require a special approach to the formation of a group of specialists-experts with the proper competence in the subject areas. At the same time, the group of specialists -experts can be both homogeneous and consist of specialists in various subject areas. At the same time, it is necessary to take into consideration that the practice of applying the indicated methods shows that their integrated application is mostly effective for solving one and the same problem. In addition to this, each of the methods, as it was noted earlier, involves some preparation for their implementation. Thus, for example, while performing interviewing of specialists-knowledge carriers it is necessary to make in advance some program of the conducted interview. However, in the course of the dialogue it is permitted to clarify and correct the program when there is some additional information. In addition to these qualitative methods aimed at identifying non-formalized knowledge, qualitative assessment of the KMS and management decisions made on their basis, during the audit of knowledge on the substance of the audit assignment, the auditor needs to conduct a study of knowledge flows, that is, to identify the relationships between employees, business and IT processes and technology.

These studies will reveal the inadequacy or duplication of certain knowledge, as well as best practices and barriers to the use of both formalized and non-formalized knowledge in the business system. It should be mentioned that these approaches implemented in the audit of knowledge, allow identifying the probable factors of the success of the business under study. To perform this, in the course of the audit study, it is necessary to focus not on a separate group of specialists of knowledge holders, but to try to cover the specialists of the entire business system. In this case, the key aspect is the assessment of factors that can either serve as barriers to the use of knowledge or contribute to the effective exchange of knowledge. Thus, it should be noted that a detailed knowledge audit allows us to determine patterns of knowledge flows in a business that form an idea of the information processing approaches used and, as a result, the efficiency of using and sharing knowledge in this system. Practice shows that according to the results of performed knowledge audit it is advisable not only to prepare a report and management recommendations, but also to carry out knowledge mapping. Knowledge maps are not only an appropriate way to capture and share formalized knowledge, but also a reflection of non-formalized knowledge with varying degrees of detail. These documents enable the management system of the studied business to understand what knowledge is necessary for certain business professionals. In addition, the maps allow sharing formal knowledge, which is inherently available information, from implicit, requiring a special approach to them from the KMS. According to Kozlova I.V., and with which it is impossible to disagree, the purpose of developing Knowledge Maps is the formation of specific documents as a new separate intellectual product, which in its essence is a source of knowledge, as they reveal the connections between knowledge sources or indicate gaps in existing knowledge assets (Kozlova I.V., 2016, P.P. 38-40). At the same time, one should not identify Knowledge Maps with knowledge storages, where the whole collection of business knowledge is stored directly. Knowledge maps are a kind of a guide to the above repositories, knowledge holders, knowledge sources, etc. The process of creating Knowledge Maps is focused mainly on the definition and planning of the KMS of any business [9, 10]. While creating Knowledge Maps for describing the subject area, it is better to use thesaurus modeling of knowledge. This approach makes it possible to effectively use the thematic thesaurus, which is the basis of a systematic understanding of the content of the concepts of the subject area and its structure, the development of logical, associative and creative thinking, memory and imagination training. In this case, a thesaurus (in the translation from the Greek. - treasure, treasury) is understood as structured and organized knowledge containing the fullest amount of vocabulary on a specific topic, indicating clearly expressed semantic relations between concepts (Andrusenko T.B., 2007 ; Kozlova I.V., 2016, P.P. 38-40). Among the significant number of Knowledge Maps used in practice, we can distinguish the most common types applicable to any business system. They include process-oriented, conceptual, competence maps, social networks, strategic, placement of advanced developments, etc.

3. CONCLUSION

As noted earlier, the report prepared on the results of the knowledge audit, as well as the generated Knowledge Maps, are not the stage of completion of the entire cycle of the audit. Research and practice of implementation of knowledge audit shows that the greatest effect of the implementation of management recommendations developed on the basis of audit is possible only in the implementation of continuous monitoring of the process of their implementation and use. This approach allows timely implementation of the necessary additional studies and adjustments of management decisions made on the basis of audit recommendations. Thus, it should be admitted that the knowledge audit cycle does not end with the preparation and submission of the audit report, but continues throughout the support of management decisions based on its results.

An audit of knowledge accompanies these decisions until they are fully implemented, that is, until the final effect is obtained.

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FEATURES OF ATTRACTING FOREIGN DIRECT INVESTMENT TO THE INDUSTRY OF AZERBAIJAN

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ABSTRACT

According to this article, attracting of foreign investment is a central issue of reconstruction of foreign economic policy and reforming of economic system of the republic. The purpose of this issue is to study the features of attracting foreign direct investment to the industry of Azerbaijan. In the course of the study, the following tasks were settled: investment environment of Azerbaijan was described, investments were analyzed and the direction of foreign investment in the country's economy was determined, and ways to stimulate investment in industry were identified. The research methodology is based on the works of foreign scientists to attract foreign direct investment. The study period covers the period of 1995-2017. The results of the study indicate that the oil sector has been and still remains as the main direction of attracting foreign direct investment in industry. Oil in Azerbaijan is the most attractive area of the national economy for a foreign investor. Due to the fact that the majority of companies engaged in the oil sector are foreign, mostly foreign investments are attracted to this sector. The main direct foreign investors in the economy of Azerbaijan are residents of the UK, USA, Turkey, Japan and Norway. With regard to the signing of international gas agreements, an increase is expected in foreign investment in the energy sector of Azerbaijan. It was revealed that the state investment policy focuses on creating a favorable investment climate in the country, on stimulating the attraction of private capital, as well as finding new forms of joint investment in promising projects.

Keywords: *foreign direct investment, investment environment, oil sector*

1. INTRODUCTION

Attracting foreign direct investment (FDI) is an important issue of reforming the economic system of Azerbaijan. First of all, this is explained by the fact that Azerbaijan needs foreign investments, which are necessary for fundamental changes in the structure of the economy. Another important reason for attracting investment is the fact that every year it becomes more and more difficult to extract and develop rich local natural resources. Thus, in the Azerbaijani sector of the Caspian Sea, with the help of traditional technologies, only 10% of all oil and natural gas can be opened (Trend, 2009, p. 12). This also applies to other deposits of Azerbaijan, especially in the production of iron ores, non-ferrous metals. Azerbaijan has the huge resource potential, which is, certainly, attractive for foreign investors. The territory of Azerbaijan has rich oil and gas fields, polymetals, raw materials for the chemical industry and construction. There is also a sufficient raw material base for the development of processing industries. Besides the rich natural conditions, the foreign investor is also attracted by a highly skilled cheap labor force. Azerbaijan has a favorable geographical position in the Middle East, it is located at the junction of two parts of the world - Europe and Asia. A reliable legal framework secured by the Law of the Republic of Azerbaijan “On the Protection of Foreign Investments” (1992) is also of great importance, according to which foreign investors making investments into the most important sectors of the economy are provided with certain additional benefits. According to the World Bank's Doing Business-2019 report, Azerbaijan ranked 25th out of 190 countries. The best indicator was the Protecting Minority Investors indicator, according to which the country ranked second in the world. Starting a Business Azerbaijan ranks 9th among the countries of the world.

The worst indicators were the construction permit (61st place) and Trading across Borders (84th place) (Doing Business, 2018). According to the Global Competitiveness Index for 2017-2018, Azerbaijan improved its position, rising to 35th place among 137 countries and taking the 1st place among the CIS countries (World Economic Forum, 2017-2018, p. 25). Attracting foreign investment is one of the priorities of the economic policy of the country's leadership. This is not surprising, since Azerbaijan, with a relatively small population, has an impressive economic potential, the realization of which requires investments many times greater than the available domestic investment opportunities. In addition, foreign investment entails not only capital inflows, but also advanced technologies, modern management experience and access to foreign markets, that is, their positive impact on the economy is diversified.

2. REFERENCE REVIEW

World Investment Report (UNCTAD, 2008) defines FDI as "investments directed to long-term relationships and sustainable income and control by a resident of one country (foreign investor) in enterprises of another country". A similar definition is given by the United Nations: FDI as "investments made to acquire sustainable income or effectively control over an enterprise operating abroad" (Eurostat, 2014, p. 3). In 1966, Vernon developed the Theory of Product Life Cycle to explain the FDI types invested by American companies in Western Europe after World War II. Vernon believed that there were four stages of the production cycle: innovation, growth, maturity and recession. In the first stage, US multinational companies created new innovative products for local consumption and export surplus in order to serve foreign markets (Vernon, 1966). Vernon's theory was not recognized as a general theory of FDI, as it explained only one reason for investment, and not all aspects of this process. Among all the concepts associated with direct investment, Flying Geese Paradigm by K. Akamatsu is of particular interest. He believed that FDI allowed developing countries and countries with economies in transition to reach the level of developed economies with less time. Therefore, the state was faced with the task of maximally easing restrictions for foreign investors (Akamatsu, 1962). Another theory that attempted to explain FDI is the theory of exchange rates in imperfect capital markets. Itagaki (1981) and Cushman (1985) analyzed currency risks in international trade. Cushman conducted an empirical analysis of currency risks for the first time. He found that an increase in the real exchange rate stimulated FDI made in US dollars, while a rise in foreign exchange lowered the US FDI. Hymer's theory of oligopolistic behavior suggests that the investor is a monopolist in his market. In other words, direct investments are made to curb competition and protect their own interests (Hymer, 1982). Hymer refers to the potential deterrence of domestic producers, which is contrary to the interests of the recipient country of FDI (Dunning & Pitelis, 2008). The theory of internalization explains the growth of transnational companies and their motivation to achieve foreign direct investment. It was developed by Buckley and Casson (1976). According to Buckley and Casson (2009), large firms with an integral internal structure can expand their activities. R. Caves takes into account the FDI direct impact on the recipient country in the form of tax payments, the creation of new industries, the creation of additional jobs. The FDI effect, in his opinion, is reflected in increased competition in the market and the promotion of more technological products among domestic firms (Caves 1974, 1993). The eclectic theory (OLI) developed by Dunning (1979) represents a synthesis of all the existing theories of foreign direct investment. Dunning suggested that the company would benefit from entering the foreign market only if it has the following three advantages:

1. "O" (Ownership advantages) - availability of market entry, ownership of patents and trademarks, international arbitration;
2. "L" (Location advantages) - advantages in transportation costs, production costs, investment incentives;

3. "I" (Internalisation) - effective control of management, ensuring quality control, price discrimination, avoiding violation of property rights (Dunning, 1979, 2000, Janton-Drozdowska & Majewska, 2016).

3. METHODOLOGY

The study used the following methods: a comparative analysis designed to compare the ratio of foreign and domestic investment, investment in the oil and non-oil sector; the method of induction and deduction that allowed to combine individual conclusions on the studied problem and formulate the author's point of view; the method of pair linear regression, with the help of which the dependence of investments on world oil prices was studied. Special methods were also used: absolute and relative statistical indicators, dynamics indicators, factor analysis. The study period covers the years 1995-2017. The information basis for this study consisted of published reports and statistical databases of international organizations UNCTAD, World Bank Group; State Statistical Committee of the Azerbaijan Republic database.

4. INVESTMENTS IN THE ECONOMY OF AZERBAIJAN

In 1995-2017, investments in the economy of Azerbaijan were invested in the amount of 247,3 US dollars (State Statistical Committee, 2018a, p. 405). The main direction of attracting foreign investment in the industry remains the oil industry. Oil in Azerbaijan is the most attractive area of the national economy for a foreign investor.

Table 1: Investments in the economy of Azerbaijan, mln. dollars (State Statistical Committee of the Azerbaijan Republic, 2018a)

Year	Total investment	Foreign investments	Internal investments	**Year**	Total investment	Foreign investments	Internal investments
1995	544,1	375,1	169,0	**2007**	12066,1	6674,3	5391,8
1996	932,1	620,5	311,6	**2008**	16222,0	6847,4	9374,6
1997	1694,5	1307,3	387,2	**2009**	13033,5	5468,6	7564,9
1998	1932,2	1472,0	460,2	**2010**	17591,4	8247,8	9343,6
1999	1571,0	1091,1	479,9	**2011**	21588,9	8673,9	12915,0
2000	1441,1	927,0	514,4	**2012**	25777,8	10314,0	15463,8
2001	1561,8	1091,8	470,0	**2013**	27340,0	10540,9	16799,1
2002	2796,6	2234,9	561,7	**2014**	27907,5	11697,7	16209,8
2003	4326,3	3371,0	955,3	**2015**	19547,2	10719,1	8828,1
2004	5922,8	4575,5	1347,3	**2016**	14228,0	10161,1	4066,9
2005	7118,5	4893,2	2225,3	**2017**	13851,2	9120,5	4730,7
2006	8300,4	5052,8	3247,6				

As a result of the "Contract of the Century" on the joint development of the Azeri-Chirag-Guneshli oil field as signed in 1994, it became possible to attract foreign investments to the country's economy. According to table 1, over the analyzed period, the growth of investments in the economy of Azerbaijan continued until 2015. The rapid decline in world oil prices in the second half of 2014 and in 2015 led to a sharp decline in oil and gas revenues. Revenues of the State Oil Fund of the Republic of Azerbaijan (SOFAR) decreased 2,1 times in 2015, and 5,4 times in 2016 as compared with 2014 (Oil Fund, 2014, 2015, 2016). Such a rapid decline in oil revenues led to a number of negative processes in the country's economy: the national currency depreciated, foreign exchange reserves declined, the Central Bank's discount rate increased and interest rates on loans, and there was a significant reduction in government spending (Mehtiyev, 2017). The decline in oil revenues also had a negative impact on investments in the economy, especially domestic ones (Figure 1). All this led to a sharp slowdown in economic growth in the country. For the first time since 2000, real GDP growth rates in the country were negative (-3,1%) in 2016, despite the fact that in 2000–2009, annual real growth rates in Azerbaijan were

always about 10 percent or more. After 2010, the growth rate of real GDP in the oil and gas sector also declined due to a decrease in oil production.

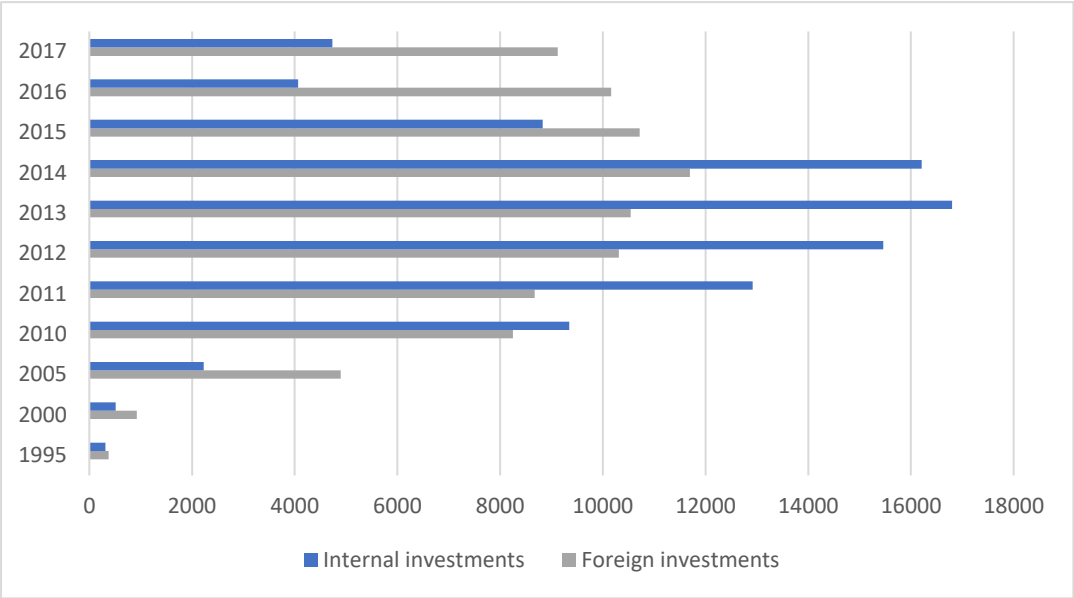


Figure 1: The ratio of foreign and domestic investments in the economy of Azerbaijan, mln. dollars (State Statistical Committee of the Azerbaijan Republic, 2018a)

According to Figure 1, over the period 1995-2017, the volume of investments from all sources of financing increased more than 25 times. Despite the fact that during 2008-2014, the volume of domestic investment outpaced the volume of foreign investment, in subsequent years there was a tendency for the predominance of foreign investment in the country's economy. The main direct foreign investors in the economy of Azerbaijan are residents of the UK, USA, Turkey, Japan and Norway. Their capital is directed to the country's oil sector. The rest of the foreign investment comes from joint ventures and enterprises with foreign capital. In such enterprises (according to 2016), the capitals of Switzerland ($ 370,5 million), Russia ($ 363,2 million), Turkey ($ 307,5 million), Great Britain ($ 174,4 million), The Netherlands ($ 127,9 million) are prevailing (State Statistical Committee, 2018b). The structure of foreign investment in the economy of Azerbaijan is shown in Table 2.

Table 2: Foreign investment, mln. dollars
(State Statistical Committee of the Azerbaijan Republic, 2018a)

	1995	**2000**	**2005**	**2010**	**2013**	**2014**	**2015**	**2016**	**2017**
Total foreign investment Of which:	375,1	927,0	4893,2	8247,8	10540,9	11697,7	10719,1	10161,1	9120,5
Financial credits	220,4	262,9	698,4	3405,9	2655,8	1880,6	2210,2	2197,8	1783,3
FDI, including:	154,7	664,1	4030,4	3614,9	5976,2	8049,2	7483,1	7323,6	5713,8
oil sector	139,8	546,1	3799,9	2955,3	4935,2	6730,7	6622,7	5617,4	4900,8
non-oil sector	14,9	118,0	230,5	659,6	1041,0	1318,5	860,4	1706,2	813,0
Oil bonus	-	-	1,0	2,0	2,4	17,0	2,0	0,1	1,4
Other investments	-	-	163,4	1225,0	1906,5	1750,9	1023,8	639,6	1622,0

According to Table 2, most foreign investment comes from FDI. In 2000 – 71,6%, in 2005 – 82,4%, in 2015 – 69,8%, in 2017 – 62,6% of all foreign investment are FDI. According to World Investment Report - 2018 (UNCTAD, 2018) FDI in Azerbaijan's economy in 2017 amounted to $ 2,8 billion. The largest inflow of FDI in 2017 to countries with transitional economies was in Russia, Kazakhstan, Azerbaijan and Ukraine. Among the 18 countries in transition, the top 5 countries that received 81% of all FDI are distinguished: the Russian Federation, Kazakhstan, Azerbaijan, Serbia and Turkmenistan (UNCTAD, 2018, p. 75). As noted in this Report, investments in Azerbaijan in 2017 decreased compared to 2016 by 36%. This was due to the continuing decline in the extraction of natural resources, especially oil. 73% of all FDI is still invested in the oil and gas sector. The ratio of FDI investments in the oil and non-oil sectors is shown in Figure 2.

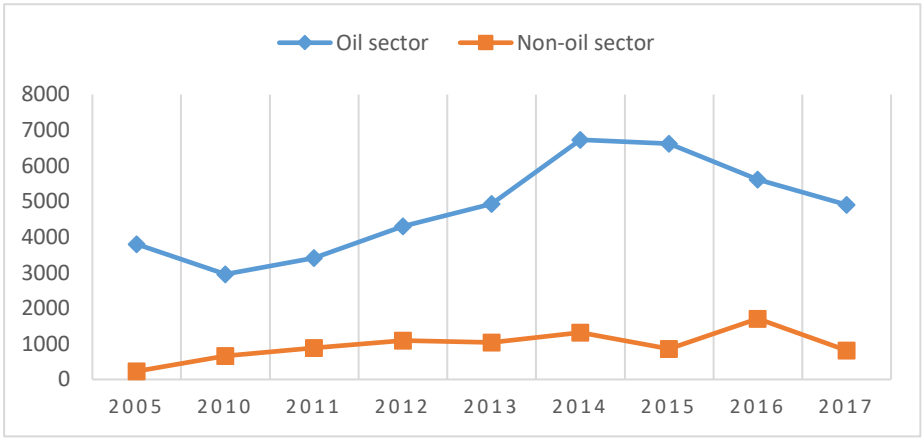


Figure 2: Foreign direct investment in the oil and non-oil sector, mln. dollars (State Statistical Committee of the Azerbaijan Republic, 2018a)

According to Figure 2, the largest share of foreign investment is directed to the oil and gas sector. Nevertheless, one of the main priorities of the government of Azerbaijan is to diversify the country's economy and attract foreign investors. The main directions of development of the non-oil sector are as follows: agriculture, transport, tourism and information and communication technologies.

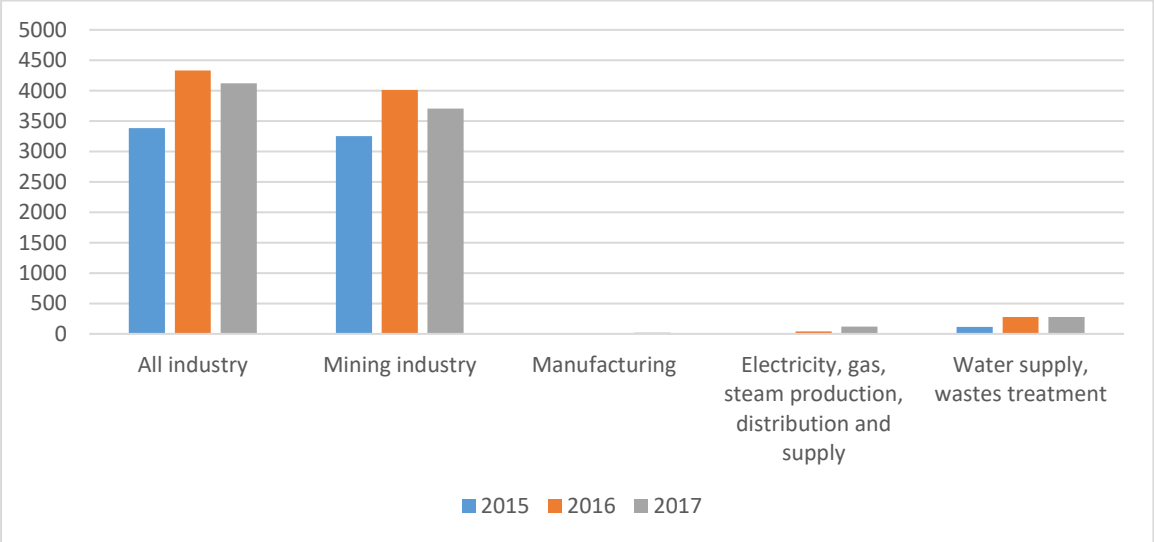


Figure 3: Foreign investment in fixed capital of the industry for 2015-2017, at actual prices, mln. dollars (State Statistical Committee of the Azerbaijan Republic, 2018c)

According to Figure 3, a significant share of foreign investment is in the mining industry. In 2015 – 96,0%, in 2016 – 92,6%, in 2017 – 90,0% of foreign investment in fixed assets of industry is invested in the mining industry. Another interesting fact is that in 2016 there was no foreign investment in Azerbaijan's processing industry at all. This structure of investment suggests that a foreign investor is attracted mainly by raw materials, especially oil and gas. Let's review the dependence of the volume of investments in the economy of Azerbaijan (*y*) on the world oil prices (*x*) by using the paired linear regression method.

Table 3: Linear regression (author's calculations)

Regression Statistics	
Multiple R	0,919966
R-quadrate	0,846338
Standard R- quadrate	0,83902
Standard error	3687,568
Observations	23

Empiric equitation of regression: $y = 252{,}0736\,x - 2895{,}0739$

To determine the relationship between the signs the Cheddok scale has been used. The linear pair correlation coefficient is determined by the *b* regression coefficient:

$$r_{x,y} = b\frac{S(x)}{S(y)} = 252{,}074\frac{32.805}{8988.804} = 0{,}92$$

The value of this coefficient indicates that the relationship between the *y* attribute and the *x* factor is very high and direct.

Coefficient of elasticity is calculated as follows: $E = 252{,}074\frac{54{,}139}{10751.969} = 1{,}269$

The coefficient of elasticity is more than 1. Therefore, when *x* changes by 1%, *y* changes by more than 1%. In other words - *x* significantly affects *y*.

Coefficient of determination is as follows: $R^2 = 0{,}92^2 = 0{,}8463$

This ratio shows that in 84,63% of cases, the *x* changes result in the *y* changes. In other words - the accuracy of the selection of the regression equation is high. The remaining 15,37% of the *y* changes are due to factors not taken into account in the model (as well as the specification errors).

Figure following on the next page

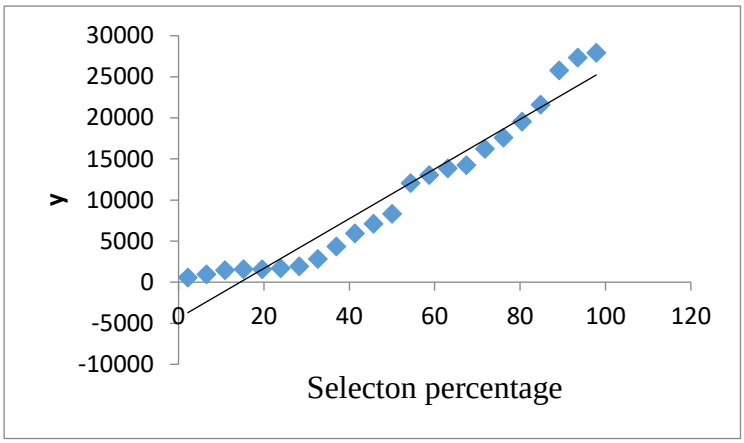


Figure 4: Normal probability graph (author's calculations)

Validation of the regression model is performed by Fisher's F-test. The actual value of the F-test is as follows: $F = \frac{0,8463}{1-0,8463}\frac{23-1-1}{1} = 115,66$

The tabular value of the criterion (F_t) with degrees of freedom is k_1=1 and k_2=21, F_t = 4.35. Since the actual value is F >F_t, the coefficient of determination is statistically significant (the estimated estimate of the regression equation is statistically reliable).

5. INVESTMENT ENVIRONMENT IN AZERBAIJAN

The market in the republic provides a great opportunity for those who want to take the risk. But most investors want a 100% guarantee. In addition, the investor can only make direct investments. And the global trend is such that a significant shift in economic policy from providing loans for industrial development to investment by buying shares has occurred. Using the lowest risk strategy, foreign entrepreneurs and their local partners are trying to concentrate their capital in such industries where profits are guaranteed by the product , on the production of consumer goods, on raw materials projects with a relatively short technological cycle, where the turnover is conjugated funds above and their volume of investment is negligible. The most important factor in stimulating investment in the country's economy is legislation. Legislation, as a rule, not only affects the degree of investment risk, but also stimulates investment in certain spheres or industries, determines the procedure for using individual factors of production. To date, the following Laws of the Azerbaijan Republic regulating the activities of investors have been adopted: "Investment activity", "Protection of foreign investments", "Privatization of state property", "Joint-stock companies", "Unfair competition", Tax Code of the Azerbaijan Republic and a number of others. In order to create a favorable investment environment, to facilitate state registration of business entities, the Decree of "On measures to ensure the organization of activities of business entities on the principle of "single window" by the President of the Azerbaijan Republic on October 25, 2007. After the introduction of the "single window" system, the initial procedures for organizing business in Azerbaijan were reduced from 15 to 2, and the time spent on it was reduced from 30 days to 2 days. After the introduction of this system, the number of registered individuals and legal entities increased significantly. The Ministry of Taxes provided the taxpayers with 63 electronic services, and the application of the electronic invoice started from April 1, 2017. The system of online registration of individual entrepreneurs was introduced in 2011, and the registration of local legal entities - in 2012. In order to stimulate investment and to create a favorable business environment, as a result of changes and additions to the Tax Code, the number of tax incentives and exemptions has increased. At present, 129 privileges are provided in the Tax Code of the Republic of Azerbaijan.

To attract and stimulate investment in the republic's economy, industrial parks were established in Sumgayit, Balakhani, Mingechevir, Garadagh and Pirallahi, as well as high-tech parks and industrial districts. For residents of industrial parks, a 7-year exemption from income taxes (income), property tax and land tax is provided. Currently, there are two structures to improve the investment environment: the Azerbaijan Investment Company (AIK) and the Export and Investment Promotion Foundation in Azerbaijan (Azpromo). The purpose of the AIK investment activity is to make investments in the authorized capital of joint-stock companies and other commercial organizations operating in the non-oil sector of the country's economy. Azpromo directs foreign investors to priority sectors for investment and facilitates the procedure of their origin in Azerbaijan. In accordance with the Decree of the President of the Republic of Azerbaijan dated January 18, 2016, the Ministry of Economy issued a document on encouraging investments to legal entities and individual entrepreneurs engaged in investment activities. To stimulate investment promotion, starting from 2016, entrepreneurs who received an Investment Promotion Document for 7 years from the date of receipt of this document are exempt from 50% of income (income) tax, property tax and land tax. Legal entities and individual entrepreneurs importing equipment, technological equipment and installations are exempted from value added tax and customs duties for 7 years from the date of receipt of the Investment Promotion Document on the basis of the relevant supporting document. In addition, today, the Republic of Azerbaijan and 47 countries have executed bilateral agreements on the promotion and mutual protection of investments. All this testifies to the positive steps of the government aimed at stimulating and encouraging investment in the economy of Azerbaijan. To attract investments, it is necessary to create an investment infrastructure that meets international standards. Increase investor interest and the level of investment by the state through the provision of state and commercial guarantees.

6. CONCLUSION

Investments are one of the most important tools for the formation and improvement of the structure of the economy. Transformation of the investment sphere and state policy should play a leading role in the further development of the economy of Azerbaijan. State investment policy should be aimed at creating a favorable investment climate in the country, at stimulating the attraction of private capital, both national and foreign, as well as searching for new forms of joint (private and public) investment in promising projects. An analysis of the dependence of investments in the economy (y) on the world oil prices (x) was performed using a pair-wise linear regression. Its parameters are estimated by the method of least squares. The statistical significance of the equation is verified by the coefficient of determination and the Fisher criterion. It has been established that in the situation under study, 84,63% of the total y variability is explained by the x changes. Economic interpretation of the model parameters is possible - an increase in world oil prices by 1 dollar leads to an increase in investment by an average of 252,074 dollars. This study shows the dependence of investment on the world oil prices. With the rise in the oil prices on the world market, an increase in oil production in Azerbaijan becomes profitable. Taking into account that foreign investments prevail in the total volume of investments (in 2017 their share was 65,8%), it can be said that foreign investments mainly depend on the oil prices. As the oil prices rise, so does the government investment. Revenues from oil exports entering the State Oil Fund of the Republic of Azerbaijan continue to invest in infrastructure, social projects, thereby increasing investments for state projects. As a result of execution of international gas agreements, an increase in foreign investment in the energy sector of Azerbaijan is expected. Despite the growth of foreign investments in the oil and gas industry and the growth of revenues from oil export, it cannot be argued that these investments alone will generate the optimal path for economic development. It all depends on how to dispose of them, in which sectors of the non-oil sector they will be directed.

But the fact that they are called upon to play an irreplaceable role in the economic development of Azerbaijan is indisputable.

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ORGANIZATION OF THE EFFECTIVE MECHANISM OF INDIVIDUAL INCOME TAXATION

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ABSTRACT
Purpose of the study Investigation of the mechanism of taxation on personal income tax, with the main attention paid to the proportional tax rate, which is the main feature of income tax. Methodology of the study Comparison, synthesis and analysis. Results of the study. The purpose of indivual income tax is the replenishment of the country's budget and the even distribution of vitally important funds between the population, which is achieved through the implementation of the functions of the reduced tax. This tax is the economic lever of the state. It is through this that the fiscal and regulatory issues are to be addressed, but this does not correspond to the realities of our time.
Keywords: *Income tax, Proportional Tax Rate, Progressive Scale of Taxation Tax, Tax Rate*

1. INTRODUCTION

The article discusses the economic nature of the income tax as the main type of taxation of income of individuals. The article also studies the foreign practice of collecting income tax. It is noted that the basic principle of the current system of income tax for individuals is social equality, regardless of the origin of taxpayers. The economic nature of the income tax of individuals is characterized by monetary relations between the state and individuals, and, in accordance with the need that had arisen, is formed in order to accumulate funds within the state budget. The economic nature of this type of tax is manifested in its fiscal and regulatory functions. When implementing the fiscal function of the tax, the regulatory effect usually manifests itself in the stages of the business cycle. That is, the change in production volumes and incomes of individuals ultimately provides for changes in tax revenues and government spending.

2. TAXATION POLICY OF PERSONAL INCOME TAX IN MODERN CONDITIONS

In Azerbaijan, as in the most developed countries, the progressive form of taxation is used in terms of personal income. The presence of only two degrees of the tax scale (14% and 25%), the definition of the minimum level, not taxed at the subsistence minimum level for the country and the wide use of tax incentives/concessions, can be presented as characteristic features of this type of tax. The wide distribution of this type of tax in all countries of the world is associated with a number of factors. The main advantage of this tax is that the entire able-bodied population of the country is considered as potential tax-payer. On the other hand, under all-equal conditions, it is easier to carry out the control by the tax authorities and it is very difficult to shy away from his payment. These features of the income tax put on the legislative and executive bodies of the country a huge economic and social responsibility in matters of creating its scale, establishing a non-taxable minimum amount and tax concessions. In the current period of globalization, a flexible tax policy should be pursued as part of a focused economic policy, aimed at even greater improvements of the conjuncture of the market economy. The described tax policy is ultimately aimed at increasing the actual economic potential and increasing the well-being of the population; not only by reducing tax rates and introducing tax benefits, but, also, to a greater extent, by expanding the tax base, stimulating investments in the economy of the country, leveling the tax burden between individuals and individual entrepreneurs, between

resident and non-resident taxpayers, creating a favorable condition for activities of small and medium-sized enterprises, business. In general, the basic principle of the current system of the income tax on individuals is social equality, irrespective of the origin of taxpayers. This means that taxpayers are equal before the law. Taken as the most important principle in creating a tax system, the principle of equality and justice means equal distribution of the tax burden. In other words, this is understood as the fair payment to the state budget of income received in the conditions created by the state for the life and activity of each tax payer. Another important principle of withholding income tax from physical entities is the inadmissibility of paying this tax for a taxpayer. In other words, the tax should be calculated only on the basis of the personal income of a citizen and should be kept from this income. Regardless of the form of ownership and organizational-legal form, enterprises and organizations that pay to individuals do not have the right to pay the income tax at their own expense. The wide distribution of this type of tax in the tax systems of the countries of the world is associated with a number of factors, which is an indication of the special role of the income tax of individuals in the overall tax system. These factors include the following:

- The most important factor is that for this type of tax the taxation subject is real income received by the taxpayer;
- The biggest advantage of this type of tax is that, according to this tax approach, the entire labor force of the country is practically being considered the taxpayer;
- This type of tax is one of the most stable and sustainable budget revenues;
- In terms of productivity, can be considered the most promising. I.e, if you do not take into account other cases, this kind of tax compared to others is easier managed by the tax authorities;
- Even if there are cases of tax evasion, it is quite difficult and in this area the level of tax control is high enough;
- It is for this tax that such important principles of the tax system as universality and uniformity of tax burden realize themselves.

The above mentioned features place an enormous economic and social responsibility on the legislative and executive bodies of each country on the formation of the tax scale, the determination of the non-taxable minimum amount, tax benefits and payment exemption. The fiscal function of the individual income tax, acting as an instrument of the social policy of the state, ensures the accumulation of money at the disposal of the state, and it is, primarily, directed at implementing the functions of regulating the social sphere. But in cases of detecting an injustice in the system of distribution of GDP, the role of the regulatory function of income tax of individuals increases. On the basis of the ideas put forward by many economists, it can be stated that the state should regulate the process of redistributing incomes in society and should carry it out first and foremost with the help of direct taxes. In this case, indirect taxes to a greater extent perform the fiscal function and, under these conditions, the role of the income tax of individuals is even more important (1). Undoubtedly, direct taxes fully comply with the principle of universal taxation and it is precisely as a result of the manipulation of the elements of direct taxes that it is possible to the maximum extent to ensure the regulatory function of taxation. Today, the individual income tax, remaining the only important type of direct tax, is deducted directly from the income of individuals and it is assumed that it is this type of tax that should ensure a fair distribution of income. Summarizing, it can be said that, as a result of this influence, the individual income tax plays a basic role in the conduct of the social policy of the state and the creation of social support for the population in need of social assistance. If it is possible to say so, the amount of income tax paid by physical entities, determines the scale of social services, provided by the state. The higher the share of income tax in the state budget system, the higher will be the level of feedback.

It is for this reason that the value of the income tax for a role in the social policy of the state is very highly appreciated. The specificity of the individual income tax, used by the state as a tool to influence society and the economy, is based on its systemic nature. The income tax consistency implies that all its elements are involved in the process of social regulation and this is perceived as a fair distribution of national income and the creation of funds to finance the social policy of a state (1). The systemic nature of the income tax of individuals manifests itself not only in fiscal and regulatory functions, but also in its orientation to solving social issues. Generally speaking, the regulating function of tax is the ability to influence the stimulation or restraint of production, the accumulation of capital, and the level of solvent of the population. The regulatory function of income tax of physical persons is realized on tax deductions and exemptions from payment, tax benefits, the elements of taxation as the definition of the upper and lower limits of tax rates. The potential of the individual income tax is achieved by creating such a balance among its elements, in which it becomes possible to ensure the accumulation of maximum funds to the state budget and in this way a fair ratio of income among the population after tax was kept. Individual incomes' taxation affects the growth of human capital and the increase in the standard of living. The trend of changes in the level of income of the population manifests itself in the dynamics of the main indicators characterizing economic development. The growth of population incomes increases consumption and accumulation, and this, in turn, increases the standard of living, changes the demographic situation, increases the life expectancy, as well as affects the other processes. If we make a prediction on the taxpayers of the income tax of individuals, then we come to the conclusion that the entire working population of the country can become its potential payer. This means that the number and composition of taxpayers for this type of tax can constantly increase in the ascending line. This, in turn, depends on the level of development of the country's economy and indicators of the social welfare of the population. The interrelation of these indicators is manifested in the fact that the state's vital goal is to ensure the social protection of the country's citizens, which is impossible to achieve without the full development of the economy.

3. FEATURES OF INCOME TAX COLLECTION MECHANISM IN FOREIGN COUNTRIES

In many developed countries, the tax system for individuals acts not only as a channel for the distribution of income, but also, - as one of the macroeconomic instruments, - regulates the ratio of income received between the rich and the poor. The progressive income tax scale allows to catch excess income and to return these funds to turnover (2). The problem of uneven incomes of the population in developed countries has been successfully solved, while in many developing countries and in countries in transition period such problems still remains. The experience of developed countries shows that, within the framework of the market economy, certain leveling can be achieved regarding these incomes, and this can be achieved as a result of the social policy pursued by the state. Now, in the world, there are more than 200 countries. In 15 countries (OAU, Monaco, Kuwait, Qatar, Bahrain, North Korea, etc.) there is no income tax at all. In more than 150 countries, a progressive tax scale is applied. The progressive scale of taxation allows not only to increase the incomes of the state treasury, but also to regulate the level of social stratification that exists in all countries. The progressive scale of taxation existing in many countries is usually multi-stage. It means that the income is divided into parts on a scale and the rate for each part is determined. In some countries, income is divided into many parts, and therefore the transition from one group to another occurs gradually. In other countries, the progression is accompanied by a spasmodic (leap) character (2).

4. THE PROBLEMS OF BALANCING ECONOMIC AND SOCIAL INTERESTS IN THE COLLECTION OF INCOME TAX

The comprehensive nature of tax reforms implies not only a transition to a new mechanism for calculating tax, but also introducing changes to the practice of tax administration, and especially tax control. In accordance with the needs of taxpayers in the social sphere, tax deduction should be improved. It is also necessary to increase the social expenditures of the state for successful reform. High tax rates can only be effective if the tax payments are justified in terms of the volume and direction of government spending, and, at the same time, tax control easily provides taxpayer motivation with tax payments. Determining the minimum taxable amount plays an important role in implementing the principle of equity with regard to income tax. In many developed countries, along with social tax amnesties, the minimum amount not subject to tax is an important indicator and constitutes a fairly large amount. While solving the problem of social justice, an important issue is the correct and reasonable definition of the subsistence minimum. This indicator determines the standard of living of the society, especially the low-income group. The problem of balancing economic and social interests is one of the issues that is constantly in the center of attention of any state and has become the cause of constant controversy and debates. The solution of this issue is in the formation of an effective mechanism of taxation and the use of different methods and mechanisms to achieve this goal. The goal of the state tax policy is to ensure a balance of economic and social interests and to achieve economic development with it, to constantly stimulate this development and, at the same time, to achieve social justice, using the most effective methods to achieve overall development. The increase in the share of income tax in general tax revenues should not occur through an increase in tax rates. This should primarily be carried out by expanding the tax base. The increase in the number of registered taxpayers, the precise indication of income from taxpayers and the improvement of tax legislation for these purposes are factors affecting the growth of the tax base. Favorable economic and social protective incentives should be created for the interest of every taxpayer, while accurately indicating the actual tax base. Every taxpayer should realize the importance of accurate and timely payment of taxes and be interested in the implementation of this process in accordance with the law (4). Revision of the basis for determining the minimum amount not subject to tax on personal income tax and calculation of this indicator for the average monthly wage or other indicator, issues are the focus of attention. In the current situation, compliance of the size of non-taxable minimum amount with the established annual subsistence minimum does not fully ensure the social interests of society. Also, it should be noted that the non-taxable minimal amount in the tax system of many developed countries is large enough and is one of the important factors in the implementation of social policies for these countries. The indicator of the minimum of non-taxable amount acts as an important tool in the implementation of the social policy of the state, and the correct use of this lever can be considered an important factor. In the modern tax system in the principles of taxation on the income tax of individuals one of the main places is tax concessions and amnesties. The number and rates of these benefits are primarily related to the social policy of the state. Under the current legislation, they serve the interests of a group of people that are more in need of social protection. But, it is necessary to collect statistical data in this area in a timely manner, analyze it on the basis of this data, and if necessary, make changes to the composition of tax benefits that can be applied. It is necessary to maintain social balance and control over it. In general, as in any field, in the area of taxation of personal income it is very important to study international experience. In modern conditions, the main goal facing the tax system is development in accordance with international standards and the formation of a level that meets modern requirements. Of course, it is needed to take advantage of the experience of developed countries and investigate the possibility of using this experience.

5. CONCLUSION

Improving the taxation of individuals requires, in the future, the study of assessing the tax burden for the population, considering the individual solvency of each citizen as the basic principle of creating the state's tax system. Obviously that the payment capacity of the population should be the main criterion in calculating the tax burden. In almost all societies, the difficulty of determining a more optimal tax rate is complicated by the likelihood of the above situations. Thus, in the conditions of increasing the upper limit of the tax rate of individuals, the problems of closing the channels of evasion from paying this type of tax to the high-income part of the population are even more acute. As one of the effective ways to solve this problem, the following can be noted: in addition to recording incomes of individuals, strict measures of control over the compliance between the income of this individual and his actual expenses should be implemented. In general, the reforms carried out regarding the income tax of individuals in the tax system should be planned in advance, information collected and analyzes carried out carefully. At the same time, the possibilities of studying the practice of developed countries and its application in the economic system of our country should be investigated. The study of international practice in tax management and the use of this experience are necessary for taking new steps in the development of the tax system and its development in accordance with the international standards.

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SOME ASPECTS OF OUTSOURCING AS A FACTOR OF EFFECTIVE DEVELOPMENT OF THE ORGANIZATION

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ABSTRACT
In modern conditions, organizations are increasingly turning to outsourcing services as one of the ways to effectively develop an organization. The article presents various approaches to the definition of the term outsourcing, identifies the reasons for switching to outsourcing, and assesses the advantages and disadvantages of this approach. The efficiency of using outsourcing in organizations was evaluated.
Keywords: *development, effective development, organization, outsourcing, types of outsourcing*

1. INTRODUCTION

At present, in the context of globalization of production and business activities, companies operate in a highly competitive environment. One of the ways to allow business entities to achieve high-quality results of their activities is outsourcing. Today, the concept of outsourcing is quite actively discussed both in the scientific literature and in business circles and the media. Organizations evaluate business process outsourcing as one of the factors that make up the competition. The purpose of this work is the study of outsourcing as a factor in the development of the economy and the possibility of its use in the activities of companies. The relevance of the work is determined by the fact that in modern conditions it is impossible to imagine the development of the world economy without the use of outsourcing, with the help of which enterprises significantly increase their competitiveness by reducing costs and rationalizing production and management activities.

2. THEORETICAL APPROACHES AND LITERATURE REVIEW

In the outsourcing management model, some functions that were previously the prerogative of the company's internal divisions (accounting, legal services, marketing research, maintenance of the internal information network, processing incoming information, public relations, and many others) are transferred to other - highly specialized - service organizations. Table 1 shows the main approaches to the interpretation of the concept of "outsourcing".

Table following on the next page

Table 1: The main approaches to the interpretation of the concept of "outsourcing"

The interpretation of the concept of "outsourcing"	Author, year of publication
Acquisition of goods or services from sources external to the organization	W.M. Lankford, F. Parsa,1999
Transfer of an internal division or divisions of an enterprise and all its related assets to a service provider organization offering to provide a certain service for a specified time at a specified price	JB Heywood, 2003
Exclusively placing an order for the performance of work by a third party under the contract	E. Anderson., B. Trinkl, 2006
Using and attracting third-party resources, assets and skills based on a contract with a guaranteed level of quality, sustainability and value for value criteria and measurements previously performed in-house, possibly involving the transfer of existing personnel to a service provider and / or transformation / rejuvenation of business support for processes and technology	J.-L. Bravar, R. Morgan,2007
Strategic management model in which business processes of one participant (customer) are transferred for execution to another (outsourcer)	S.N. Zhivaykin, 2011
One of the elements of the strategy of economic growth due to external factors	E.S.Shlenskova, 2011

The review of approaches to the definition of the essence of the concept of outsourcing leads to the following conclusion: the whole point of outsourcing is that it is necessary to concentrate all resources on the type of activity that is essential for the organization, and transfer support and accompanying reliable and professional partner.

2.1. Motives for using outsourcing

Heads of enterprises need to allocate one or more targets for the use of outsourcing, based on the proposed options or introducing additional goals, and only then create one or another mechanism for its implementation. The key goal, of course, should be the concentration of business on the activities that provide the core competencies of the company. The significance of the remaining goals depends on the specific situation. The main motive for outsourcing lies in the desire of open companies to formally improve their economic performance. And in order to get a successful experience of outsourcing, it is necessary to clearly understand the benefits and the need for such a step, psychological and material readiness for additional expenses that will necessarily be in the transfer of the business process to the side. Figure 1 shows the most typical motives for using outsourcing.

Figure following on the next page

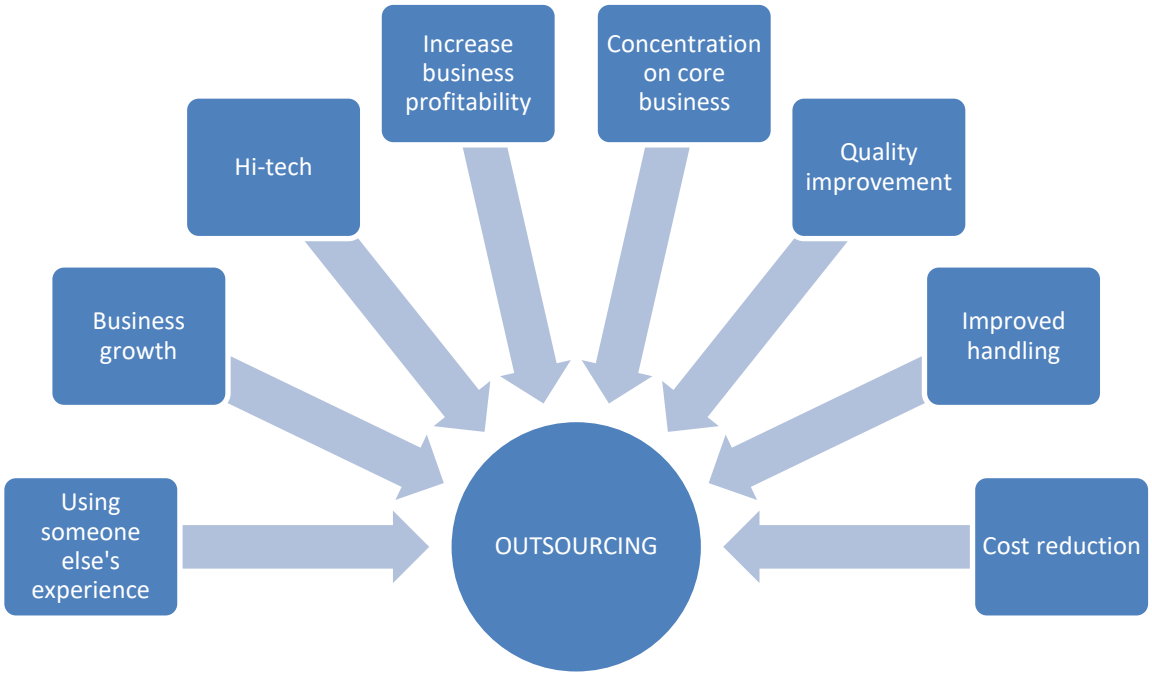


Figure 1: The main reasons for using outsourcing

In my opinion, the main distinguishing features of outsourcing from other types of cooperation are:

- the ratio of customer needs and outsourcer specialization: in some cases, the outsourcer must be the best performer of the necessary functions for the customer in the market;
- relations are limited to the volume of the performed function, which allows reducing the risk of loss of confidentiality of information, which is characteristic of other types of relations.

Before making any decision, it is necessary to analyze the positive aspects and disadvantages of outsourcing. The advantages and disadvantages of using outsourcing are summarized in Table 2.

Table 2: Advantages and disadvantages of outsourcing

№	Positive sides	Disadvantages
1	effectively use new technologies	threat of leakage of significant information
2	improve handling	danger of losing jobs
3	reduce the cost of implementing business processes, reduce costs and control them	transfer of an excess of significant functions
4	free up internal resources	the threat of separation of top management from direct impact on business processes
5	improve the quality of the products or services received	in some circumstances, an outsourcing is detrimental and more expensive than anticipated
6	focus on the main activity	Lack of a developed legislative base for outsourcing in Azerbaijan

In general, outsourcing is very profitable and convenient, and in some cases it is simply necessary, because it allows you to avoid a lot of risks, and also simplifies the work and allows you to improve not only certain functions, but also the activities of the company as a whole.

3. CLASSIFICATION OF OUTSOURCING TYPES IN MODERN ECONOMY

It should be noted that today the classification of outsourcing services is not well established and final, since partnerships within specific outsourcing agreements may have significant differences. The reason for this was the rapid pace of development of this business sector, the emergence of new forms of relationships in the context of economic globalization, legislative restrictions, etc.

3.1. Management and economic aspects of outsourcing

In outsourcing, we can distinguish both managerial and economic components (see Table 3).

Table 3: Managerial and economic aspects of outsourcing

The essence of outsourcing	Refusal to independently perform certain functions in order to increase the efficiency of the enterprise
Managerial aspect	Transferring tasks or processes for execution to external operators
Economic aspect	Using external resources to perform the functions of an enterprise, i.e. attraction by the company to conduct its business activities of factors of production controlled and organized by other firms in the interests of the client company

From a management point of view, it is convenient to classify types of outsourcing by the criterion of the types of processes transferred to execution by an outside contractor.

3.2. Approaches to the classification of outsourcing

There are four main approaches to such a classification (see table 4). As can be seen from table 4, the natural classification of outsourcing from an economic point of view should be carried out according to the criterion of the type of resources (production factors) necessary to perform the relevant functions.

Table 4: The most common approaches to the classification of outsourcing

Classification feature	Types of outsourcing
Attitude to the core activities of the enterprise	Outsourcing core processes Auxiliary process outsourcing
Activities	Production outsourcing Production and economic outsourcing IT outsourcing Logistics outsourcing Knowledge Management Outsourcing Staff outsourcing Accounting outsourcing
Transferred functions	Full outsourcing Partial outsourcing Intermediate Outsourcing Joint outsourcing Advanced Outsourcing
Resource type (factors of production)	Capital Outsourcing Labor outsourcing Outsourcing Information Outsourcing entrepreneurial abilities Mixed outsourcing

In this case, the following types of outsourcing can be distinguished:

1. capital outsourcing. This type of outsourcing includes:
   - production outsourcing (the company places orders for the manufacture of a product under its brand with a third-party contractor);
   - leasing (here for the production of products used equipment that belongs to another organization);
2. labor outsourcing (staff outsourcing);
3. information outsourcing - in this case, the client company entrusts the collection and processing of information, and in some cases, the development of a solution on its basis to a third-party enterprise. This type of outsourcing refers, in the opinion of ID Kotlyarov, to accounting;
4. outsourcing of entrepreneurial abilities is the process by which the contracting authority uses entrepreneurial abilities concentrated in other companies to conduct its own business activities. It is mainly about outsourcing intellectual capital, which is the fruit of entrepreneurial skills. This type of outsourcing includes franchising and licensing. These activities traditionally do not apply to outsourcing, but despite this, they are considered precisely as some particular cases of outsourcing. For example, when franchising, an independent entrepreneur (franchisee) outsources the management of the brand under which he conducts his business activities;
5. mixed outsourcing is a process in which the contracting authority transfers to a third-party contractor a function that requires the use of several types of resources. This type of outsourcing includes factoring, in which the enterprise factor, on the one hand, provides the supplier with financial resources (capital outsourcing), and on the other hand, collects and processes information about the current and potential customers of the supplier to determine their solvency (information outsourcing).

Depending on the classification of the transferred processes according to the criterion of their relationship to the core activities of the company for the main and auxiliary processes, they distinguish the outsourcing of the auxiliary processes and the outsourcing of the main processes:

- the outsourcing of core business processes is the transfer to the side of the processes directly related to the main activity of the company. Often this type is called production outsourcing, because outsourcing transfers part of the existing chain of production processes or the entire production cycle to an outsourcer;
- the outsourcing of auxiliary business processes is the transfer of a specialized company of processes that are aimed at supporting the main processes, accompany them and form the infrastructure of the company. For example, the transfer of the processes of procurement, logistics.

Depending on the volume of transferred functions for outsourcing, the following types of outsourcing are distinguished:

- full outsourcing - assumes that the company-customer transfers in full to the company-executor a separate production or business process;
- partial outsourcing - is the transfer of the individual functions of a department to the company-executor. Today, this form of outsourcing is the most relevant and popular in the global and domestic economy;
- joint outsourcing is carried out in the case when the parties to the outsourcing agreement are partners;
- intermediate outsourcing - assumes that the company for some time transfers the management of its units (in which, as a rule, highly qualified specialists work) to a third party;

- improved outsourcing - when the contracting authority transfers to the executing organization the functions that it does not want to carry out in its own structure. But at the same time the customer reserves the role of a distribution management body.

Another sign of the classification of activities, which include the transferred processes. Often with this approach, the following types of outsourcing are distinguished:

- outsourcing in the field of information technology (IT - outsourcing) is a partial or complete transfer of work on the support, maintenance and modernization of the IT infrastructure of a company specializing in subscriber services for organizations and having a staff of specialists of various qualifications. For them, the performance of such work is a core activity. As a rule, during IT outsourcing, the client company transfers its functions in servicing client information systems, such as technical support, system administration, development, implementation and maintenance of software in enterprises, development and maintenance of websites, equipment maintenance, etc. .
- production outsourcing - when it is more profitable for the enterprise not to carry out the production process on its own, but to transfer them in full, or in part, to an outside organization. The use of this type of outsourcing, in the first place, allows the organization to focus on developing new service products, as well as to increase the flexibility of the production process and diversify the products to the current market demand;
- production and economic outsourcing - is the most common type of outsourcing. All work organization of corporate catering, cleaning of the premises and the surrounding area, the management of vehicles of the enterprise, operation of real estate, etc. are transferred to the outsourcing companies;
- logistics outsourcing is the acquisition of logistics services from a third party. The essence of this type is to reduce the cost of the company in the implementation of the supply chain of goods through the involvement of a competent professional in the business processes - the logistics operator;
- personnel outsourcing (personnel outsourcing or staff leasing) is the transfer of companies of all organizational issues related to personnel business to a contracting firm specializing in recruiting and hiring staff on a temporary and permanent basis;
- accounting outsourcing is a special case of business process outsourcing, one of the methods of accounting support of the company. This type of outsourcing involves the transfer to the outsourcer functions related to the organization, accounting and reporting;
- knowledge management outsourcing is the transfer of management of processes that require in-depth study and analysis, time-consuming and energy-efficient processing of large amounts of data, the formation and management of knowledge bases, which can be used in the future to make strategic decisions.

3.2.1. Evaluation of the effectiveness of outsourcing

It should be noted that it is not necessary to understand by outsourcing the use of absolutely any services provided by external performers. By outsourcing, it is necessary to understand precisely the transfer for a long time, the maintenance of any non-core activity of an organization that is able, in principle, to cope with this implementation and itself through its own forces without outside help. Considering the many types and forms of outsourcing, it should be noted that when choosing a company - an outsourcer should be considered:

- experience in the market of services provided (non-standard situations faced by the company's specialists);
- within what time frame the company undertakes to correct the mistakes made;
- the presence of complaints from the serviced customers;

- how the company insures the risks of poor-quality service provision;
- for which services under the contract the company bears financial responsibility;
- and, finally, the absence (presence) of lawsuits.

It seems that it is necessary to make an assessment of the effectiveness and feasibility of outsourcing, in order to avoid many mistakes in its use, and the assessment must be made at the planning stage, i.e. before the conclusion of the outsourcing contract. After the introduction of outsourcing into a business, you can monitor and monitor the company's work, changes, successes and failures, to draw conclusions, and further to avoid mistakes made and to correct shortcomings, to eliminate weaknesses.

4. CONCLUSION

Based on the study, the following conclusions and suggestions can be made:

1. Outsourcing is a management strategy that allows you to optimize the functioning of the company by focusing on the main direction. Despite the fact that many domestic companies today are only looking at this type of service, small and medium-sized businesses are already actively using the services of outsourcers in terms of information technology, financial (accounting) and personnel outsourcing.
2. Even a small analysis of outsourcing leads to the conclusion that this type of service is beneficial for the organization. And even despite the presence of limitations and shortcomings, outsourcing allows the company to get rid of many routine operations. Consequently, a company can simultaneously save money, improve the quality of its reporting, free up internal resources for its core business, afford to engage in processes that generate profits, pay more attention to their future, study new technologies, direct their development efforts, thereby increasing their competitiveness in the market.

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EVALUATION OF TANAP AND TAP PROJECTS EFFICIENCY

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ABSTRACT

In modern age, one of the main goals of each state is to ensure the country's sustainable economic development and the welfare of people. The income from natural resources has a unique impact on sustainable economic development. Azerbaijan implements large-scale projects for the efficient use of natural resources. It should be noted that Azerbaijan's natural gas reserves are considered as new opportunities for Europe. The choice of a natural gas transport route to Europe has become a necessity for this opportunity to materialize. Therefore, for the export of Azerbaijani gas to Turkey and Europe it is particularly important in the creation of the Southern Gas Corridor. The Southern Gas Corridor consists of the South Caucasus pipeline, the Trans-Anatolian Natural Gas Pipeline and the Trans-Adriatic Pipeline. This project emerged as a strategic partnership between Azerbaijan and Turkey, also have political and economic importance for both countries. The main aim here is exporting Shah Deniz II gas to Europe via the territory of Turkey and ensure Euorope's energy security. TAP and TANAP projects help to integrate Azerbaijan with regional and European energy markets, and to strengthen the transit and transition role of Caucasus. In this article, two major projects - TAP and TANAP, which are still under development, were examined and these projects' future contributions to Azerbaijan and Europe's energy security were shown. Furthermore, the effectiveness of these global projects for the parties and their place in energy policies were evaluated.

Keywords: *Effeciency, Energy, Resource, TANAP,TAP*

1. INTRODUCTION TO TAP AND TANAP PROJECTS

Azerbaijan has been famous for its oil production and export since ancient times. However, in the last 10 years, the country has been developing the natural gas sector rapidly. The estimated gas reserve of the Republic of Azerbaijan is approximately 3 trillion 450 billion cubic meters. It should be noted that the GDP growth rate in Azerbaijan was 0.1% in 2017, and this figure has been average 16% in 2002-2010. Despite the decline in oil revenues, the increase in gas production indicates that this would be compensated. In addition, the Government of Azerbaijan for managing the income derived from energy resources and transferring these revenues to future generations established SOFAZ (State Oil Fund of the Republic of Azerbaijan) in 1999 and this fund has been conducting various local and international projects to ensure the economic development of the country. In general, the leading role of the energy sector in the country's economy cannot be denied and we will see a sharp increase in the share of the gas sector in this role in the coming years. The pace of development of the country's gas strategy has contributed to the implementation of a number of major projects. South Caucasus Pipeline, Trans-Anatolia and Trans-Adriatic Gas Pipelines, which are part of the Southern Gas Corridor project, became an integral part of Azerbaijan's gas strategy. The main purpose of these projects is to provide Shah Deniz-2 gas export. Therefore, the State of Azerbaijan carries out various activities for the full scale development of this area. It should be noted that 67.8 billion cubic meters of natural gas and 17.6 million tonnes of condensate have emerged from

the Shah Deniz field during the period 2006-2015. In 2015, 9.9 billion cubic meters of gas and 2.3 million tonnes of condensate were obtained from this area. In addition to 9 billion cubic meters of gas from Phase 1, 25 billion cubic meters of gas are expected to be produced. From 2006 to 2017, 85 billion cubic meters of gas and 21.2 million tons of condensate were removed from the Shah Sea area. The TANAP project is an integral part of the Southern Gas Corridor. The TANAP project will ensure the sale of 6 billion cubic meters of 16 billion cubic meters of gas annually to Turkey and 10 billion cubic meters to Europe, which will be produced in the second phase of the development of the Shah Deniz field. As a further support for the TANAP project, according to the relevant decision of the Cabinet of Ministers of Turkey, companies that are involved in the construction and supply works in the TANAP project since the beginning of 2015 are exempt from VAT. The main shareholders of the project are SGC (Azerbaijan) - 58%, BOTAS (Turkey) - 30%, and BP (Great Britain) - 12%. The length of the pipeline is 1802 km, the initial transmission capacity is 16 billion cubic meters per annum (with a capacity of up to 31 billion cubic meters). The date of commissioning of the initial phase of the project is 2018. The TAP project as a continuation of the South Caucasus Pipeline and the Trans-Anatolian Pipeline (TANAP), envisages the transportation natural gas from Shah Deniz-2 through the territory of Greece and Albania to the south of Italy. It is planned to deliver Azerbaijani gas to Europe via this pipeline in 2020. Shareholders of the project: BP (Great Britain) -20%; SGC (Azerbaijan) - 20%; "SNAM S.p.A" (Italy) - 20%; Fluxys (Belgium) - 19%; "Enaqas" (Spain) - 16%; Axpo (Switzerland) - 5%. The length of the pipeline is 878 km and the initial transmission capacity is 10 billion cubic meters per annum (with an extension of up to 20 billion cubic meters).

2. EFFICIENCY OF TAP AND TANAP PROJECTS

The South Caucasus Pipeline, which transports Azerbaijani natural gas to the Georgian-Turkish border, The Trans-Adriatic Pipeline, which will transport natural gas to Greece via TANAP, Trans-Adriatic Pipeline, which will transport natural gas to İtaly are the main segments of the Southern Gas Corridor. Through the SCP, TANAP and TAP pipelines, the gas produced from the Shah Deniz-2 field in the Azerbaijani sector of the Caspian Sea will reach Turkey and Europe to Europe. The Southern Gas Corridor, with a length of 3,500 km, is expected to transport 6 billion cubic meters of gas to Turkey and 10 billion cubic meters of natural gas to Europe. Export to Turkey and Europe will play a significant role in the energy security of Europe and Turkey, and will create enormous opportunities for the Azerbaijani economy.

2.1. TANAP project effectiveness

Relations between Turkey and Azerbaijan are based on deep historical roots. The existing socio-economic relations between the two countries, the energy potential of Azerbaijan and Turkey's geo-strategic position create important opportunities for both countries. TANAP is a great opportunity for both Turkey and Azerbaijan. Implementation of the project for Azerbaijan is an opportunity to transport its natural gas to international markets without Russia. For Turkey it will be a chance to reduce dependence on existing gas suppliers. Russia is close to 60 percent of Turkey's imports. So, the first effect of TANAP begins here. An annual 6 billion cubic meters of Azerbaijani gas through TANAP will generate 12 percent of Turkey's total imports. Thus, the share of Russian gas will drop below 50. In addition, the implementation of such large-scale projects will further strengthen ties between Azerbaijan and Turkey, bringing together the two countries and their peoples. TANAP project is an economically important project and not only an increase in the economic potential of Azerbaijan, but also for Turkey’s and Europe's gas security, as well as for transit countries - economies of Turkey and Georgia. Since these countries are transit countries, they will benefit from this operation. The TANAP project also boosts its role as the regional energy center of Azerbaijan and helps reduce Turkey's traditional

dependence on Russian and Iranian energy. In the future, with the TANAP and TAP projects, Turkmenistan, Iran, Iraq can increase gas production and export gas to Turkey and Europe. Using these projects, these countries will also help to diversify gas exports in Europe and Turkey. In the future, the Trans-Caspian pipeline will also be able to export some of the Asian gas to Europe and Turkey through those pipelines.

2.2. TAP project effectiveness

Starting in 2016, this pipeline will be completed in 2020. TAP project, which has a total length of 879 km, crosses Greece (545 km), Albania (215 km) and the Adriatic Sea (105 km), reaching the southern coast of Italy. It will then be 55 km to Italy and will connect to the Italian general gas grid. In general, the idea of bringing Azerbaijan's natural gas resources to the world market has been discussed since 2003. First, NABUCCO project was developed. However, this project was not found to be so efficient. Therefore, a new project with the Southern Gas Corridor project was prepared. As part of this project, TAP serves the delivery of Azerbaijani gas to southern Europe. Local authorities in Albania, Greece and Italy raise their objections against construction of TAP because of its social and environmental hazards. For example, in the Albanian section of the project, the olive groves, gardens and grazing areas of the local people are located in the area where this pipeline passes. The same concern is also seen in Greece, because the pipeline passes through the northeastern territory of the country suitable for agriculture. Moreover, the TAP pipeline will affect the tourism sector of southern Italy. All these problems endanger the project's sustainability. In the begining 10 billion cubic meters of gas from the TAP pipeline will be transported. This will be enough to supply about 7 million families in Europe. The project is expected to connect two additional compressor stations and not only the Shah Deniz 2, but also the natural gas reserves of the Caspian region can be involved in the project. In this case, it will be possible to double the power supply. Moreover, There are other sources beyond the Azerbiajani coast in the region. It is possible to import gas from Turkmenistan. Also, gas supplies from the Eastern Mediterranean region and the Kurdish region in Iraq can also be transported through the pipeline in the future. TAP project left behind major projects such as NABUCCO, ITGI (Turkey-Greece-Italy) and SEEP (Southeast Europen Pipeline) and selected among them for its economic efficiency. Particularly, it has exceeded the main rival project- NABUCCO. Firstly, the length of NABUCCO reachs 1300 km in Europe, whereas the length of TAP is 870 km. Also, 2.2$ billion needed for initial implemention of TAP, while the same figure reaches 7.9$ billion in NABUCCO. This means that less time and money are required for the implementation of the TAP project. According to the information provided in 2018, 82% of the Trans-Adriatic pipeline’s engineering, procurement and construction works have been implemented. 98% of territory Greece and Albania where the pipeline passes was totally cleared and appreciated. In each of the two countries, about 90% of the pipes have been docked.

2.2.1. Natural gas demand and production in Europe

The graph below shows the demand for gas in different European countries, with an increase every year. Additionally, according to Oxford University Energy Institute, there will be an additional 88 billion cubic meters of gas demand in 2013-2030. During the three years mentioned, Turkey has grown by about 6 billion cubic meters and about 50 billion cubic meters in Europe.

Figure following on the next page

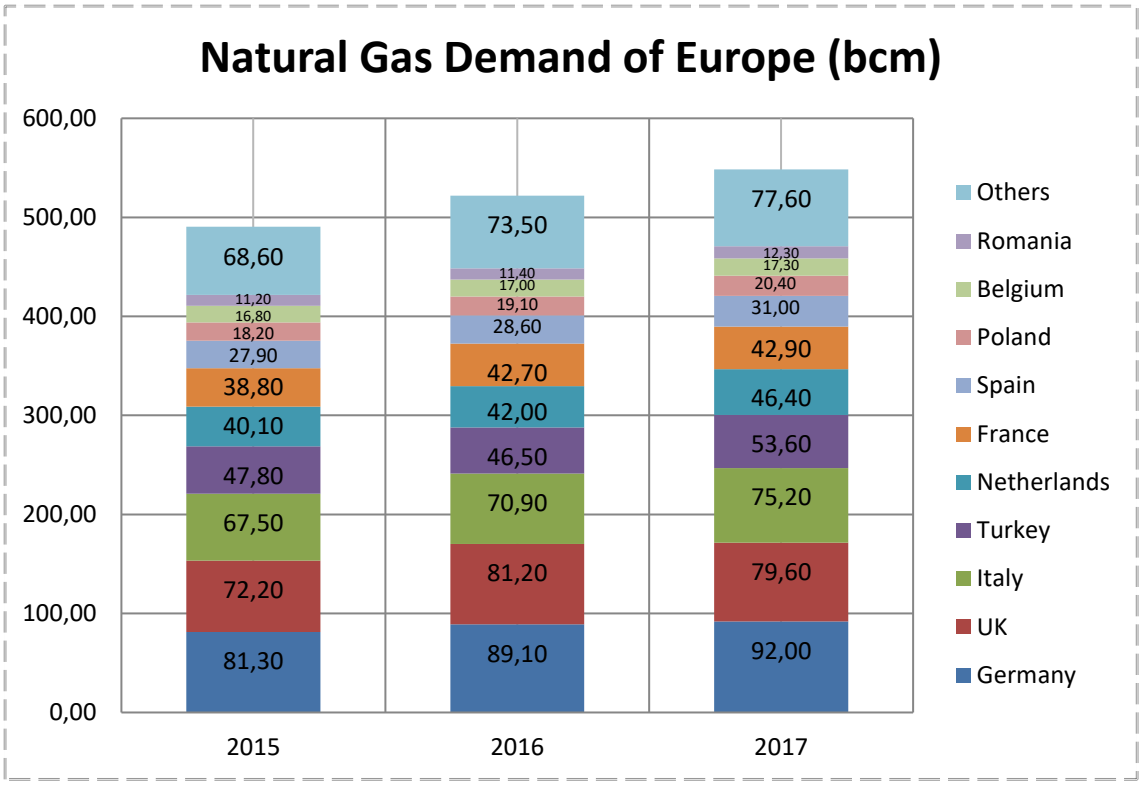


Figure 1: Natural Gas Demand of Europe (The Oxford İnstitute For Energy Studies 2018)

Europe's gas production began to decline about 10 years ago and currently the EU imports more than three-quarters of the gas supply. Decline in European production will continue. The International Energy Agency (IEA) predicts a decrease of approximately 100 billion cubic meters (about 80 billion cubic meters in the EU) by 2040. It is known that Europe will rely on imports.

2.2.2. Change in demand for oil and natural gas around the world

According to the International Energy Agency, the demand for natural gas will increase from 20.9% in 2010 to 22.4% by 2035. (among the types of energy: oil, coal, gas, biomass, nuclear, hydro). Nevertheless, the demand for oil will reduce from 32.9% (year-end 2010) to 27.8% (up to 2035). Therefore, increasing Azerbaijan's gas exports will reduce the decline in oil revenues to the real sector and the GDP. Based on the information provided above, we can say that Azerbaijan will be able to increase gas exports in future with TANAP and TAP projects. Replacing oil revenues with gas revenues will have a positive impact on trade balance and economic activity.

3. RELATIONSHIP BETWEEN GDP AND GAS EXPORTS

The signing of the Century's Contract and the increase in oil exports in Azerbaijan have had a major impact on economic growth, which increase in gas export will play an important role in the development of the economy. To evaluate this, we build a regression analysis of the following patterns: GDP and gas exports value.

Table following on the next page

Years	GDP	Azerbaijan Natural Gas Export Value (AZN)
2006	18 760 888 090,44 AZN	2 842 075,67 AZN
2007	28 360 500 000,00 AZN	15 517 451,31 AZN
2008	40 137 200 000,00 AZN	59 763 014,30 AZN
2009	35 601 500 000,00 AZN	100 796 404,17 AZN
2010	42 465 000 000,00 AZN	231 875 083,44 AZN
2011	52 082 000 000,00 AZN	452 114 654,04 AZN
2012	54 743 700 000,00 AZN	509 632 232,32 AZN
2013	58 182 000 000,00 AZN	550 633 268,88 AZN
2014	59 014 100 000,00 AZN	238 994 129,60 AZN
2015	54 380 000 000,00 AZN	1 580 275 095,00 AZN
2016	60 425 200 000,00 AZN	1 722 779 638,88 AZN
2017	70 135 100 000,00 AZN	2 160 619 444,00 AZN

Table 1: GDP and Azerbaijan Natural Gas Export value by years (stat.gov.az)

Table 1 shows the volume of GDP in the Republic of Azerbaijan for the years 2006-2017 and the total value of gas export. MS Excel can be used in mathematical software packages for regression analysis of the dependence between GDP and gas exports using the above indicators. For this purpose, using the MS Excel software package, we will have the following result based on Table 1 data.

Regression Statistics	
Multiple R	0,75030842
R Square	0,562962725
Adjusted R Square	0,514403028
Standard Error	8634132082
Observations	11

ANOVA	df	SS	M	F	Significance F
Regression	1	8,64253E+20	8,64253E+20	11,59320915	0,007812699
Residual	9	6,70934E+20	7,45482E+19		
Total	10	1,53519E+21			

Column1	*Coefficients*	*Standard Error*	*t Stat*	*P-value*
Intercept	42001081822	3607094240	11,6440212	9,94734E-07
Natural Gas	12,26740061	3,602887593	3,404880195	0,007812699

Lower 95%	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
33841267749	50160895895	33841267749	50160895895
4,117102636	20,41769858	4,117102636	20,41769858

Table 2: Regression analysis of GDP and Gas Export Value (it has been prepared by authors)

According to the result of the program package, the regression equation will be as follows:

$$Y = \alpha_0 + \alpha_1 * x_1$$

Substituted Coefficients:

$$Y = 42001081822 + 12{,}26740061 * X_1 \qquad \textbf{(1)}$$

According to this equation, it is possible to conclude that a single increase in the value of gas export in the Republic of Azerbaijan causes a 12,26740061 increase in GDP. The multiplicity correlation coefficient indicates the relationship between the free variable (X1), which indicates the factor input Y with the dependent variable R^2 = 0.562962725. Determination R^2 = 0.562962725 means that the corresponding regression equation is 56.3% dispersion results, 43.7% by other factors. This means that with the increase in gas export in Azerbaijan, GDP will also increase. One of the key issues in the Republic of Azerbaijan is to ensure the reduction of oil revenues in the future with gas revenues. With the help of the F-Fischer criterion, it is possible to check the statistical significance of the whole set of regression equations. For this purpose, the F-Fischer criterion should be compared with the F_cal (a; m; n-m-1) price. According to Table 2, which reflects the outcome of the MS Excel software package

F- statistic (Fişer kriteriyası) = 11,59320915

Let's check the F-statistic price with the table price.

$$\boldsymbol{F_{table}}\ (\mathrm{a}; \mathbf{m}; \mathbf{n-m-1}) = (\mathbf{0,05}; \mathbf{1}; \mathbf{10}) = \mathbf{4,9646}$$

The F-Fischer criterion, F_{table} (11.59> 4,96), is compared with F_{table} (a; m; n-m-1). This means that the regression equation is of a statistically significant character. This means the adequacy of the model (1). As a result of the research, it was determined by calculating the elasticity factor that 1% increase in gas export value from Azerbaijan affects 0.16% GDP growth. As oil revenues have a positive impact on GDP growth after the signing of the Century's contract, the increase in gas exports will have a positive impact on GDP. As a result of the fall in oil prices, a decline in foreign currency was observed in Azerbaijan. TAP and TANAP projects create new opportunities for Azerbaijan through gas exports to Turkey and Europe.

4. CONCLUSION

One of the main important issues in energy sufficiency and energy security is the consideration of economic and political interests of countries which import and export energy carriers. Nowadays, it is a necessity to work in cooperation with interested countries and taking into account the need for energy. TAP and TANAP projects, which have emerged as a result of international cooperation and partnerships, also serve to boost competitive environment in Europe's energy security. The most favorable sources of gas export to Europe in terms of price and transportation are the Caspian Basin, Russia and Central Asia. The most convenient way to export gas from Azerbaijan, Iran, Iraq and Turkmenistan is to ensure that this gas is transported via Turkey. After completion of the TAP project, export of gas to Europe will be a convenient way not only for Azerbaijan, but also for other countries. Looking at the World Bank's gas prices, we can say that the forecast given till 2030 shows that gas prices in Europe are on the rise trend.

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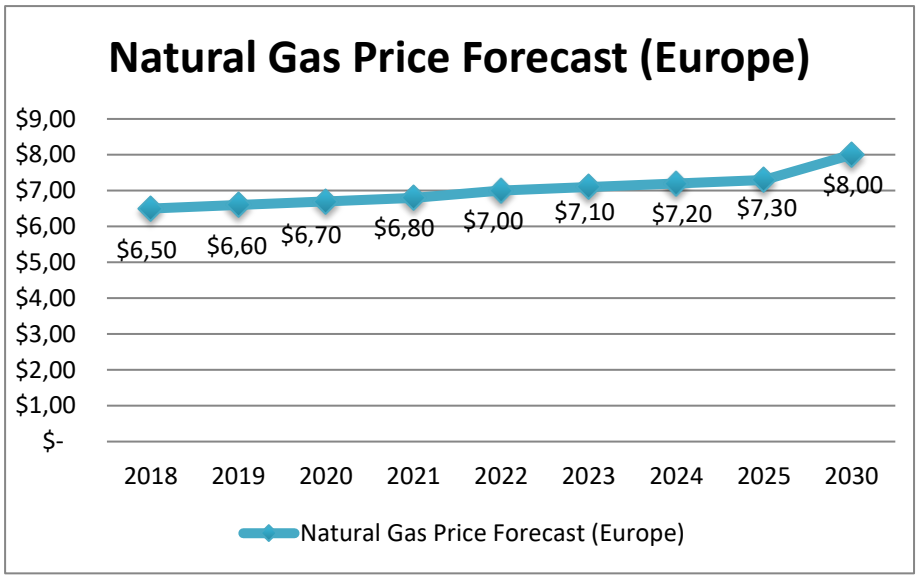


Figure 2: Natural Gas Prices Forecast in Europe (World Bank Commodities Price Forecast)

Also, Nandita Parshad, Energy and Natural Resources Director of the European Bank for Reconstruction and Development (EBRD), said that TAP and TANAP projects fully comply with European Union standards and EBRD performance criteria, and noted the high economic efficiency of these pipelines. EBRD also assessed the financial ratings of these projects as AA. The Bank has provided TANAP $ 500 million in financial support. Generally, since 1994, when the "Contract of the Century" was signed in 1994, Azerbaijan was the initiator and participant of many large oil and gas projects. The experience of these global projects guarantees that Azerbaijan will successfully complete the TAP and TANAP projects and these projects will have a positive impact on the relations between Azerbaijan, Turkey and Europe.

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CRISES IN THE GLOBAL FINANCIAL SYSTEM: ANTI-CRISIS POLICY - THE STAGES OF REGULATION

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ABSTRACT
Purpose of the study. Investigation of the gaps in the global financial system and the disclosure of the main directions of the anti-crisis policy. Research Methodology. Summarize, analyze and evaluate. Results of the study. Countries around the global financial crisis are taking different action. State programs implemented in recent years in order to prevent this crisis in our country and the implementation of the infrastructure projects proved that these measures are purposeful. Developed countries today say that the intention to accelerate the construction of infant structure and social facilities to overcome the emerging financial crisis indicates that the anti-crisis action plan of the Government of Azerbaijan against the financial crisis and the future will be resolved. The strong energy potential of our country in recent years also reaffirms this idea.
Keywords: *Anti-crisis policy, Economy, Financial crisis, State world*

1. INTRODUCTION

Financial crises tend to not happen as a rule. When we look at history, we can see that this crisis, as well as the previous ones, has gone through several stages. In the early stages of the crisis, crises seemed relatively quiet, and then led to severe consequences and economic downturn. One of the main reasons for the global economic downturn was the decline in production facilities and the decline in real capital investments. There is a certain correlation between the price change and the exchange rate. There is a close correlation between the rate of the national currency, the depreciation of the currency, and the production of the product. The short-term capital that enters and leave the country also have a significant impact on decline of the local currency. The other reason for the financial crisis was the lack of placement and involvement of bank loans and the problem of liquidity in the world's largest banks. Suspension of financial operations by major companies due to the crisis has also been caused by the sharp decline in the shares of the banks. At the same time, sharp price changes in the world oil market had severe effect. At the initial stage of the financial crisis, the United States has in just one month spent $ 514 billion to buy oil. Of course, this has led to a deficit in foreign trade, and ultimately the US debt of $ 5.3 trillion. In our view, the biggest problem that may arise in the future for the global financial system may be issue of additional funds. Because cash flows into circulation without commodity mass is one of the conditions that accelerate inflation.

2. MAJOR FINANCIAL CRISES OF THE XIX-XX CENTURIES

The financial crises of the 19th-20th centuries were largely remembered by similar features. At that time, it was difficult for business to get loans, and banks increased interest rates and borrowers become enable to pay off their debts. At the same time, the prices began to decline, and banks, credit and financial institutions had to be bankrupted and suspended their activities. Almost all the crises that had emerged begin in this way. The United States, Britain, France and Germany in 1825, England in 1825, Britain in the United States in 1836 and in the US in 1841, finally in 1847 were stroke by the crisis. Afterwards, the 1858 crisis, the economic crises of 1873, 1882 and 1890 have frustrated the world economy. Then, the 1929 crisis, the collapse of the stock market entered the history as “Black Tuesday” (October 29, 1929).

The crisis that took place in 1929-1933 covered all financial sectors and was so devastating that left in shadow the previous crisis.

3. CRISIS IN THE FINANCIAL SYSTEM AND STAGES OF THEIR REGULATION IN DIFFERENT PERIODS IN THE UNITED STATES

The crisis in the US financial system has been largely regulated by the budget-tax policy and has gone through several stages. For example, the first stage covering the 1920s and 1970s provided a solid budgetary system in the United States. Meanwhile, the budget system was characterized by the following features:

- The federal budget had an extensive public destination;
- As a result of the policy of the presidents Nikson and Jonson the creation of a "large society", the share of social spending in the federal budget has significantly increased;
- The expansion of war in South East Asia and the beginning of the Cold War coincided with a significant increase in military spending over time.

There was a steady increase in the federal budget deficit. During this period, public criticism of excessive budget spending on the needs of public administration was enhanced. About one-fifth of the world's GDP is USA's GDP. The United States is home to about one third of world production, and is the world's largest economic. Compared to other countries, the 1950s and 1960s were the highest peak of US economic development. Since 1961, economic development has fallen to weaken and finally the 1970s civil crisis has accelerated the process of division of the US economy into three zones: the northern, southern (more rapidly developing in the oil industry) and western (rapidly developing new technologies) building). All of these crisis factors have simultaneously been reflected in the fact that the US budget system has been formulated throughout the long term. The second stage of the 1971-1980s: This stage is mainly related to budget reform and its key features are as follows:

- More efficient re-distribution of budget-tax funds among power levels. - Government expenditure optimization.
- Defining a clearer balance between the budget executive duties of the Presidential Executive Office and the controlling powers of the Congress.

The third stage, applied in 1981-1988, is called "New federalism" policy. This is what the former presidents Nixon and Jonson's "pursuing a policy of creating a great society." The objectives of the "new federalism" were to prevent crisis situations in the state financial system. At that time, the essence of Reagan's reforms was that the state was underestimating the cost of social programs and reducing costs. In our opinion, as the positive results of the "new federalism" policy can be distinguished as follows:

- Increasing the sustainability of the American financial system is a high level of flexibility against changes in its budget and tax policy.
- The slowdown in the growth rate of the federal budget expenditures, which increases the importance of territorial budgets.
- Increase of taxes levied by the state authorities for social expenditures.
- Partial reduction of the previous over-centralized system of social and other software management.

B. Clinton's presidency period is the fourth-rate budget policy of the 1990s. At that time, the measures used were purely financial:

- Reduction of budget deficit and tax burden;
- Modernization of production and application of new technologies;

- Renewing economic activities aimed at increasing economic growth rates.

As a result of the flexible economic policy of the US government and the development of a highly efficient capital market, the development of new high-tech production and service industries in 1990 the US has once again demonstrated its economic power. The main factor of the economic growth of the 1990s is the growth of private investments and consumption of the population. The increase in private investment dropped more than 30% of the GDP after 1991, the highest figure in the post-war era. In the US in 1992-1997 the premium rate increased to 20% of GDP. The share of public spending in GDP declined from 22.4% in 1992 to 18.7% in 1999. This has been the lowest since 1996. It was during that period that the US economy's long-term rise took place. Clinton was at that tin noting that "our main goal is to liberate the United States from foreign debts which we could never have dreamed five years ago". The president had planned to pay full public debt until 2013. Clinton's budget plan, which was in effect in 1993, included the following:

- Reduction of the federal budget deficit for 5 years.
- Increase the basic federal taxes (individual income tax and corporate tax).
- Strengthening the tax burden for business profit and reducing federal costs.

In 1993-1996, the tendency of the economic situation improved considerably. Inflation rates are the greatest achievement of the economic policy of this era. In 1996-1997, Clinton proposed the following major measures that enlarged the 1993 plan and the target were achieved:

- Large tax incentives have been applied to higher education and individual taxpayers.
- Mild reduction of costs for working families to pay for childcare costs.
- Expanded non-taxable personal pension accounts.
- The non-taxable amount has been increased up to $ 2,000 a year.
- Significantly expanded the circle of Americans who have the right to receive a direct tax subsidy, but who have fewer opportunities.
- The program of wide expansion of children's health insurance was approved by and passed in Congress

Fifth stage is G. Bush's financial policy. Bush described the main directions of his policy as his "smart and responsible" policy:

- Promoting tax benefits and encouraging economic growth.
- Increase military spending by 26% to strengthen national security.
- National security management and its reorganization.
- Reaching 700,000 barrels of oil's strategic reserves to ensure energy security of the country.
- Increasing the scholarships for scholarships and research by 26% and increasing students' scholarships from $ 18,000 to $ 30,000.
- Providing tax incentives to 109,000 paying users.
- Opening new jobs to strengthen the economy.
- Increase financing by 36% for timely medical aid to war veterans.

Starting from the second half of 2003, the signs of improvement in the American economy have been notable, which included:

- GDP growth rate;
- Volume of industrial production;
- Private investment in production;
- Consumption costs;
- Retail trade turnover;

- Volume of foreign trade in products and services.

Finally, the crisis that started with the mortgage bankruptcy in the US in 2008 showed itself in some other leading countries in the world. It is known that the cause of the global crisis is largely the American mortgage and the entire financial system collapse. The low interest rates in the US have increased the attractiveness of loans for the most diverse segments of the population and the number of unsecured loans. As a result, the sharp decline in oil prices led to the rise in inflation and the reduction of state budget revenues.

4. ANTI-CRISIS POLICY OF THE GOVERNMENT OF AZERBAIJAN IN THE CONTEXT OF GLOBAL FINANCIAL CRISIS

In the International Monetary Fund's report on Azerbaijan, while discussing the short-term forecasts of the 2009 state budget and the impact of the crisis on the country's economy, it was noted that the strong economy in our country's fast dynamic dynamics and its contemporary situation is resistant to the global financial crisis has come. This report also notes that financial support to the non-oil sector was observed in construction and services. It should be noted that just the assets of the State Oil Fund are a few times higher than the total debt burden. At the wrap-up meeting of the Cabinet of Ministers on the outcome of social and economic development in 2008, President of the Republic of Azerbaijan Ilham Aliyev in its final speech said that the ongoing global financial and economic crisis has affected the whole world, and as Azerbaijan is a part of the world and successfully integrated into the global economy, all of these factors undoubtedly could have a negative impact on the economy of our country, and that the reduction of this impact was the main task of the government. The period before the global financial crisis (2008) was very successful for the Republic of Azerbaijan from the point of view of socio-economic development. Looking at the dynamics of economic growth, Azerbaijan was one of the first in the world for this indicator. The achievement of this success has also played an important role in the implementation of the State Program on socio-economic development of regions that have been consistently implemented in recent years. The dynamic growth of new workplaces has created a stimulus for the socio-economic development in the regions as a whole. All of this gives us grounds to conclude that the socioeconomic policy in the country is undergone to be met and effectively implemented. Apparently, the main direction of the state's economic policy is the dynamic development of infrastructure and non-oil sector. As for the economic system of Azerbaijan, it should be noted that it is very flexible and demonstrates its commitment to the protection of the national economy from serious financial shocks. The development of this system can be divided into four main stages:

The first stage covers 2003-2008 years period. In this period, the main priorities of socio-economic policy have been defined in Azerbaijan:

- Continued money-credit and exchange rate policies that support macroeconomic stability and its preservation, sustainable economic development and poverty reduction.
- Increase the effectiveness of the financial intermediation function of the banking system, strengthening the protection of the interests of customers and bank lenders.
- Continuously develop financial markets, financial institutions and derivative financial instruments to ensure dynamic growth of government revenues.
- Provide sustainable and high growth rates in industrial production by stimulating national production.
- To ensure the stock market formation that strengthens the position of the country in the global capital market.
- The policy of socio-economic development of the regions is mainly related to the development of the non-oil sector, the restoration and expansion of the operations of the

industrial enterprises, the stabilization of export-oriented production, the development of local entrepreneurship, and the further improvement of the living standards of the population.
- Further improvement of the environment or environment in order to ensure sustainable and balanced development in the long run.
- Effective use of state revenues for the well-being of the population, ensuring transparency in the financial system.
- Creating new jobs. The main goal in this area is not everyone's getting a job.
- To meet the population's energy needs, to ensure the sustainable development of the non-oil sector.
- Ensuring productivity increase in agriculture.
- Expansion of financial and credit services networks in the agrarian sphere and ensuring food security of Azerbaijan.
- Raising the socio-economic development of the regions to the level of modern requirements (State Program for Socio-Economic Development of Regions 2004-2008).
- To continue the balanced foreign policy course, to further extend international economic cooperation.

The second stage covering 2009-2013. Challenges to minimize the negative impact of the global financial and economic crisis on Azerbaijan:
- Ensure the implementation of infrastructure projects and other socio-economic projects for 2009.
- To control the consumer market and to avoid artificial price exacerbation, to strengthen anti-trust activities, to put an end to unsubstantiated monopoly and unhealthy competition.
- To look at the possibility of a part of Azerbaijan's currency reserves to be placed in Azerbaijani banks.
- Maximum implementation of all social programs.
- Azerbaijan should keep its importance as an attractive country for foreign investors and to focus on investing in the construction of more infrastructure areas.
- Pay great attention to food safety issues.

The third stage, covering the years 2014-2016, is characterized by the implementation of socio-economic projects, particularly 2016 - the year of economic reform. As a result of the implemented reforms, Azerbaijan's economy has been adapted to the requirements of the non-oil sector.

All the achievements in the II and III stages indicate that Azerbaijan's economic potential is determined by the consistent success of government's successful economic policy that today, more than 65% of the national economy falls to the private sector. Socio-economic reforms, along with serving the comprehensive development of our country, strengthen our state and ensure its economic development.

The fourth stage covering 2017-2025. The main priorities of this new phase are to increase competitiveness in the local economy. For this purpose, the Strategic Road Map has been compiled on the national economic perspective of new economic reforms. This document provides for a one-year-long roadmap, economic development strategy and action plan for 2016-2020, as well as a long-term forecast for 2025 and a strategic target for the post-2025 period. Strategic review phase since 2017. This stage is divided into three periods:
- Strategic review period by 2020.

- A long-term strategic review period by 2025.
- Strategic target review period for the post-2025 period.

Under this strategic vision, 11 sectors were functionally created. As a strategic target, increasing the competitiveness of the economy on the basis of providing sustainable economic development of Azerbaijan and strengthening its position in the global regional value relationships, further improve the social well-being, the legal framework, protect human rights and freedoms, the objective is to increase the effectiveness of the reform. From the aforementioned, it can be concluded that the global financial system weakened the world economic system and created serious problems. In some countries, unemployment has gradually increased as some manufacturing facilities ceased to exist. The current financial situation of our country gives grounds for eliminating the negative consequences of the global economic crisis.

5. CONCLUSION

In our view, it is not possible for the current world economic crisis to last long, because oil cannot be sold for a long time at a price lower than the May value, i.e. $ 50. It is also unlikely that the upper limit of its price would rise up to $ 150. If the world faces a long-term financial crisis, our national economy should consider how to overcome the negative consequences of the crisis. Proper integration of assets and resources in the conditions of integration should be the main task of financial institutions of each country. One of the reasons why Azerbaijan's financial crisis has not been seriously affected is the development of the oil sector, as well as the creation of permanent jobs in recent years in order to minimize unemployment. This results in a significant reduction in the country's financial system and its financial dependence on the outside. Apparently, the financial crisis in the world, despite the massive unemployment situation, continues to lead to the sustained pace of its development, the development of the non-oil sector, the creation of new jobs, and the socio-economic development of the regions The State Program is being implemented.

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THE DEVELOPMENT OF MANAGEMENT INNOVATION THROUGH THE USE OF LEAN-TECHNOLOGY

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ABSTRACT

The article is devoted to the development of new directions of optimization of management technologies, administrative processes and organizational structures. The features and the need to apply the principles of effective resource management, attention to the needs of the customer, focus on the problem of elimination of all types of losses, the full use of the intellectual potential of the personnel of the enterprise for the development of management innovation. The methods, principles and basic tools of lean production technology are studied, the possibility of their application in the management process is analyzed. In modern conditions of economic development, innovation and innovation determine the competitiveness of national corporations on the world market and are the most important factors for the effective development of the economy as a whole. In international practice, little attention is paid to innovation in management, and the development of enterprises is mainly associated with technical and technological innovations. However, the effectiveness of the Corporation's management is reflected in the performance of new equipment and technologies. Since the renewal and development of any activity occur due to the improvement of methods of its implementation, it is necessary to introduce innovative conceptual approaches to the improvement of the management system that determine the innovative strategy of the Corporation. One of the methods to improve the efficiency of corporate management and improve its activities is the introduction of the concept of lean production.

Keywords: *Management innovations, Lean technologies, Lean production in management, Innovative development*

1. INTRODUCTION

Management innovation is the new knowledge that is embodied in new management technologies, new administrative processes and organizational structures, such as the introduction of new methods of organization of work, structuring tasks, resource allocation, determination of remuneration and others.

Managers have the potential to increase profits, which are often underestimated. As a result of the use of managerial innovations, the organization not only acquires long-term competitive advantages, but also receives managerial profit, which is one of the important results of the implemented transformations. With the gradual saturation of commodity markets and increased competition, many Russian leaders are beginning to think about improving the competitiveness of their business. Innovation is not only some global idea to modernize the enterprise or introduce new systems, but also small ideas to improve various processes that help to produce better products or provide better services. New unique technologies are replacing the usual for all ways of working. To be successful, the organization must constantly evolve and be dynamic. Organization - a living organism that is constantly moving, either in the direction of development or in the direction of decline. All organizations are aimed at development, therefore, their goal is only positive development in the direction of growth. In this regard, change management is one of the most popular technologies, techniques in the management of the organization, business. This program allows you to transfer the team, the organization from the current state to the desired future. One of the types of management changes in the organization is the introduction of lean manufacturing. Lean production – a new attitude to work, to production, a new attitude of employees to everything (Raju et al., 2017, pp. 145-151).

2. METHODS, PRINCIPLES AND BASIC TOOLS OF LEAN PRODUCTION TECHNOLOGIES

2.1. Lean manufacturing methodology and principles

During the period of the highest competition and the aggravating crisis, the enterprises of the whole world have no other way than, using the best world technologies of management, to create the products and services which are the most satisfying clients on quality and the price.
The main objective of the production system is the continuous improvement of the "value stream" for the consumer, which is based on a rational combination in time and space of all major, auxiliary and service industries. This allows you to produce products with minimal labor costs and depend on the economic performance and results of the enterprise, including the cost of production, profit and profitability of production, the value of work in progress and the amount of working capital (Stepchenko, 2015, p. 5508). Lean production is based on the disclosure of the creative potential of the company's employees. Unlike other management technologies focused on strict regulation of activities, this approach allows involving employees of all levels in the process of optimization. At the same time, a complex effect is achieved: the company works more efficiently, employees are involved in the project implementation process and have the opportunity to improve their working conditions and material compensation. The starting point of lean manufacturing is value for the consumer. From the point of view of the end user, the product (service) acquires real value only at the time when there is a direct processing, production of these elements. The basis of lean production is the process of elimination of losses. Losses in any production process are an inevitable problem for many enterprises, both producing products and providing services. Loss is a condition that does not add value to a product or service. We can distinguish the following losses of the enterprise:

1. Loss of creativity.
2. Excessive production, which means that more goods are produced than required, or earlier than required by the customer.
3. Delays. When workers are idle waiting for materials, tools, equipment, information, it is always a consequence of poor planning or insufficiently established relations with suppliers, unexpected fluctuations in demand.
4. Unnecessary transportation when materials or products are moved more frequently than necessary for a continuous process. It is important to deliver everything you need in a timely

manner and in the right place, and for this the company must be implemented good logistics schemes.
5. Excessive stocks, or storage in warehouses of more products than are sold, and more materials than are necessary for the process.
6. Excessive processing. The products must come out of production of such high quality that as far as possible to exclude its alterations and improvements, and quality control should be fast and effective.
7. Defects that should be avoided by all means, because the settlement of customer claims take additional funds: if you need to fix a defective product, spent extra time, effort and money.

In accordance with the concept of lean manufacturing, all activities of the enterprise can be classified as follows: operations and processes that add value to the consumer, and operations and processes that do not add value to the consumer. Therefore, anything that does not add value to the consumer, in terms of lean manufacturing, is classified as a loss, and should be eliminated (George, 2014, pp. 295-303). The main objectives of lean manufacturing are:

- cost reduction, including labor costs;
- reduction of production creation time;
- reduction of production and storage space;
- guarantee of delivery of products to the customer;
- maximum quality at a certain cost or minimum cost at a certain quality (Kolesnikova et al., 2009, pp. 41-43)

2.2. Lean production methods

Pull production - the scheme of the organization of production at which volumes of production at each production stage are defined exclusively by needs of the subsequent stages (finally – needs of the customer). The ideal is "the flow in one product" ("single piece flow"), i.e. the supplier (or the supplier), located upstream, produces nothing as long as the customer (or internal user) that are below, he was about misleading. Thus, each subsequent operation "pulls" products from the previous one. Such a method of work organization is closely connected also with the balancing and synchronization of threads (Goldsby et al., 2016, pp. 277-281). Canban is a system that ensures the organization of a continuous material flow in the absence of stocks: production stocks are supplied in small batches, directly to the desired point of the production process, bypassing the warehouse, and the finished product is immediately shipped to customers. The essence of the Canban system is that all production units of the enterprise are supplied with material resources only in the amount and by the time required to fulfill the order. The order for finished products is submitted to the last stage of the production process, where the calculation of the required volume of work in progress, which should come from the penultimate stage. Similarly, from the penultimate stage there is a request for the previous stage of production for a certain number of semi-finished products. That is, the size of production at this site is determined by the needs of the next production site. Kaizen is a derivative of two characters – "change" and "good" – usually translated as "change for the better" or "continuous improvement". In the applied sense, Kaizen is a philosophy and management mechanisms that encourage employees to offer improvements and implement them online. There are five main components of Kaizen: interaction, personal discipline, improved morale, quality circles, suggestions for improvement. System 5S-technology for creating an effective workplace. Under this designation is known system of restoring order, cleanliness and discipline. 5S system consists of five interrelated principles of the organization of the workplace:

- sorting-separating the necessary items: tools, parts, materials, documents, from unnecessary to remove the last;
- rational arrangement-put each item in its place;

- cleaning - maintenance of cleanliness and order;
- standardization-accuracy through regular implementation of the first three S;
- improvement - becoming a habit of established procedures and their improvement. (Fabrizio et al., 2012, pp. 74-81)

SMED — Single Minute Exchange of Die approach to changeover and re-tooling. As a result of the introduction of the system SMED change of any tool and readjustment can be made in just a few minutes or even seconds, "one— touch" (the concept of "OTED" - "One Touch Exchange of Dies"). Principles to reduce changeover time by tens or even hundreds of times:

- separation of internal and external setup operations,
- conversion of internal operations in external,
- use functional clamps or eliminate fasteners,
- use of additional devices.

System TPM (Total Productive Maintenance) – mainly serves to improve the quality of equipment, focused on the most efficient use due to the universal system of preventive maintenance. The emphasis in this system is on the prevention and early detection of equipment defects that can lead to more serious problems. TPM involves operators and repairers who work together to improve the reliability of the equipment. The basis of TPM-scheduling preventive maintenance, lubrication, cleaning and General inspection. This ensures an increase in such an indicator as The full Efficiency of the Equipment. System JIT (Just-In-Time) is a material management system in production where components from a previous operation (or from an external supplier) are delivered exactly when they are required, but not before. This system leads to a sharp reduction in the volume of work in progress, materials and finished products in warehouses. The "just in time"system assumes a specific approach to the selection and evaluation of suppliers, based on the work with a narrow range of suppliers selected according to their ability to guarantee the supply of" just in time " high quality components. At the same time, the number of suppliers is reduced by two or more times, and long-term economic ties are established with the remaining suppliers (Vumek et al., 2018, pp. 301-316). A visualization is any tool that informs you about how your work should be done. This is the placement of tools, parts, containers and other indicators of the state of production, in which everyone at first glance can understand the state of the system - the norm or deviation. The most commonly used visualization techniques are: contouring, color marking, road sign method, paint marking, graphic work instructions. U-shaped cells - the location of the equipment in the form of the letter "U". The U-shaped cell machines are arranged horseshoe-shaped, according to the sequence of operations. With this arrangement of equipment, the last stage of processing takes place in close proximity to the initial stage, so the operator does not need to go far to start the next production cycle.

3. THE USE OF LEAN-TECHNOLOGY IN THE MANAGEMENT PROCESS

3.1. Lean-system and lean-culture

Production efficiency in most enterprises is directly related to the complexity and duration of the production cycle. The longer this cycle, the greater the number of auxiliary and service industries involved in it, the less effective is the production as a whole. This pattern is explained by the obvious need to spend a lot of effort to coordinate all actions to ensure uninterrupted supply of the main production of raw materials, energy, equipment maintenance, transportation and storage of products, loading and unloading. Failure of the equipment at one technological stage can lead to failures in the operation of the entire production, up to its complete stop. Thus, the solution of the problem of stable functioning of the entire production system becomes particularly important for increasing efficiency and achieving the best results.

One of the ways to solve this problem is the introduction of Lean-technology system, which is designed to optimize production processes, constantly improve product quality with constant cost reduction. The system is not just a technology, but a whole management concept, involving the maximum orientation of production to the market with the interested participation of the entire staff of the organization. The experience of implementation of the described technology, at least in the form of separate elements, at the enterprises of various industries showed its prospects, so that there is no doubt the need to study this experience and further expand its scope. Through the introduction of lean production methods at the enterprise, it is possible to solve the main management tasks: to minimize costs without reducing the level of quality of the final product, to speed up the production process, to prevent overproduction and overstocking, to debug supply channels. With the full-scale use of lean manufacturing approaches, the company creates a full-fledged Lean system that permeates all levels and subsystems of management. Within the framework of this system, the company's employees perform work operations with optimal methods (replication of best practices). Line managers daily monitor production losses and take operational actions to prevent, eliminate or reduce them. In this they are helped by optimizers-employees of a special service who have in-depth knowledge of approaches and tools of Lean production. Management plans and conducts its activities in terms of efficiency of production, which is monitored daily and sometimes even hourly. Of course, all this is supported by a common Lean culture (which, by the way, can be mastered in our country-there are examples), when, for example, to move up the career ladder, it is necessary to develop and implement an improvement for the process in which you work. It takes several years and a large amount of money to form a Lean system. In most cases, there is no need to implement a full-scale lean system to identify and implement internal reserves, you can use the idea of lean manufacturing and some simple lean technologies to get significant results in a short time. Of course, the possible effect in this case will be slightly less than from the lean-system, but the increase in labor productivity by 1.5-2 times is also a very desirable result. Together with the optimization of other costs, this can give a significant increase in profits (Russell, 2012, pp. 128-135). By implementing continuous improvement in the form of lean manufacturing, many companies are more dependent on internal problems and obstacles than on external ones. Most of the internal factors simply lead the development of a new production system into a corner, into a dead end, calling into question the further implementation of this global and necessary project. Lean enterprises differ from others in the following:

1. The basis of the production system of such enterprises-people. They are a creative force in the production of competitive products, and technology and equipment – only a means to achieve their goals. No theory, strategy, technology will make an enterprise successful; it will be achieved only by people on the basis of their intellectual and creative potential. (Stryabkova et al., 2018, pp. 1501-1502)
2. Production systems of "lean" enterprises are focused on complete elimination of losses and continuous improvement of all processes. All employees of the company from workers to senior management are involved in daily work to prevent all possible types of losses and continuous improvement.
3. The management of the company makes decisions that take into account the prospect of further development, while the immediate financial interests are not decisive. The management of such companies is not engaged in useless administration-command, unjustifiably strict control, evaluation of employees with the help of complex systems of various indicators, it exists for reasonable organization of problem prevention. The ability to see and solve problems in the workplace is valued in every employee – from top management to workers (Dorzhieva, 2013, pp. 159-161).

3.2. Lean technology Approach

The General approach in the case of local application of lean-technologies is a cycle of 5 steps. production process, timely detection, solution and The process of optimization of the organization begins with the study of problems. First, it is necessary to identify the problems that exist in the studied process and that will be solved with the help of lean technologies. At the first step, a list of problems and an array of information on them are formed. In the second step, an array of information is analyzed to understand the root causes. Next, you need to develop optimization solutions. It begins with the third step, which is the search for possible solutions using certain technologies (for example, "optimization Funnel", 5C, etc.) – there may be several. In the fourth step, the proposed solutions are evaluated in terms of their effectiveness to select the most preferred, and then develop and implement an action plan for their implementation. When developing an action plan, we should not forget that the studied and optimized management process can not be in a vacuum, i.e. changes in one process, as a rule, entail changes in related processes. With the help of standardization of activities, monitoring of parameters and other technologies of fixing solutions, the situation does not allow to roll back over time to the initial state. The fifth step should result in a stable functioning solution. After the process is improved, its content and parameters are changed, you can proceed to step 1 again. In this cycle the iterative nature of optimization is concluded.

4. CONSLUSION

In the context of increasing global competition, corporations will be competitive only when they use modern innovative methods of effective management. Lean Production is an enterprise management concept based on a constant desire to eliminate losses. Lean production involves the involvement of each employee in the process of business optimization. The main objective of the production system is to continuously improve the process of creating value for the consumer through a rational combination of time and space of all major, auxiliary and service industries. Thus, saving of time, material and labor resources is achieved, production cost is reduced, profitability of production increases, all economic indicators of production and economic activity of the enterprise are improved. Production or logistics based on lean technologies can cause a huge increase in labor productivity and production volumes. Lean technologies should become the main production system in many sectors of the world economy. Despite the many examples of efficient use of lean production tools, there are difficulties in introducing these methods into the activities of corporations on an ongoing basis. Lean production philosophy should become a corporate culture and way of thinking. The lean production system orients the company to work effectively in the long term only if it is possible to reorient the thinking of employees from technological tasks to the understanding of production, economic and financial relationships. Any implementation of lean manufacturing principles begins with personnel training, implementation of the philosophy of continuous, continuous improvement of the Corporation's activities in order to increase the value for the client. The introduction of lean manufacturing philosophy can be started from a separate workshop and spread the experience to all enterprises.

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BANKING REGULATION AND THE FISCAL POLICY IN THE ECONOMIC DEVELOPMENT: WORLD AND NATIONAL EXPERIENCE

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ABSTRACT

Article discusses the features of the use of financial resources in economic development at the present stage of development in Azerbaijan. Based on the lessons of world practice and the success of the financial policy pursued in Azerbaijan and studying the benefits of using oil revenues, the author found it extremely important to create a competitive environment in the national economy in conditions of high incomes. It has been established that the effectiveness of budget revenues should be the main goal of economic policy. In general, the article presents a systematic assessment of economic growth observed in recent years in Azerbaijan, including the rationalization of the aggregate structure of demand and payments, the balance of tax burden, budget deficit and inflation and, as a result, the sustainability of economic development. One of the important features of the modern stage of the world economy is the comprehensive nature of the problem of increasing the effectiveness of economic policy against the background of the trend of economic recovery. In our opinion, the main reason for this is the contrast current stage of economic development in the world. The fact is that the achievement of a new qualitative stage of development on the whole justified the actual rapprochement of traditional and axiomatic considerations as the basis of the humanitarian and social nature of economic activity.

Keywords: *bank policy, fiscal regulation, fiscal policy, marketing, monetary regulation, world experience*

1. INTRODUCTION

In recent years, world economic experience has shown that the rational use of resources in the national economy and the fair distribution of the generated income are one of the key conditions for the well-being of the population. From this point of view, of course, the state should strive to improve the well-being of the population, which affects the redistribution of economic resources and incomes. However, according to the theory of prosperity, with the prevailing competition, the principle of equality is that if there is equilibrium, then Pareto efficiency cannot be achieved, that is, no one can improve their well-being without reducing the welfare of others. (3) If we believe that social decisions are based on people's well-being, they are better informed about the best for the state.

From this point of view, the intervention of economic processes from the point of view of principles of justice is inexpedient. Nevertheless, the effectiveness of the Pareto will lead to division, namely: a competitive market does not provide only the social part of the benefits. Nothing prevents the creation of an unbalanced income distribution in such an economy. The market economy leads to a high level of inequality among people in terms of consumption and consumption. Thus, the problem of discrepancies and conflicts between efficiency and justice has become one of the biggest problems in the history of society. That is why, in our opinion, this should interfere with economic activity in order to ensure the principles of public justice.

2. SPECIFICATIONS OF FISCAL AND MONETARY POLISIES IN AZERBAIJAN UNDER MODERN CONDITIONS

The development of banking in Azerbaijan cannot be carried out in isolation from international banking standards and requirements without interaction with international financial organizations without creative use of existing international experience in this field. It is also necessary to ensure the interaction of the internal system with foreign banks, because the globalization of processes is being drawn into its orbit in all countries built within their national borders, open to the liberal market economy of the world community. As you know, conditions of good competition are often characterized by individuality. Thus, the competitive advantage of the market shows the ideal situation. The asymmetry of incompatibility, relatively small market volumes, monopoly capitalism, and other factors form the level of competitiveness in the market. Non-competitive markets do not ensure the efficient allocation of economic resources and incomes [5, p. 34]. One of the main instruments of macroeconomic regulation is fiscal policy. Fiscal policy implies a system of measures that the government implements in regulating government spending and taxation in order to regulate employment and inflation in the country. Fiscal policy provides for the implementation of changes in accordance with the existing tax rates for the implementation of part of the state budget revenues. This means that the state constantly intervenes in economic processes through fiscal policy. With this intervention, the government will strive to form a revenue part of the state budget. Fiscal policy is usually characterized as a set of measures related to government revenues and expenditures. The state intervenes in economic processes through its fiscal policy to regulate their progress. This intervention is a complex of measures taken in the field of taxation in order to form a profitable part of the state budget, increase the efficiency of the national economy, and stabilize economic growth and employment of the population.

Table 1: Implemented strategies and financial stability

Policy coverage	Main goals	The goal of financial stability
Prudential regulation	Limits to the activities of individual financial institutions	Identification of system risks.
Monetar	Price stability	Limit excessive changes in credit and asset prices during boom periods.
Regulation of exchange rate	Stability of exchange rate	Reduce volatility in capital flow.
Fiscal policy	Supply Cycle Management	Play fiscal protective role that can respond to stress in the financial system.

Source: Towards a global structure of financial stability. Azizov Y.S. Monetary regulation. Monograph. Baku, 2014, 375 p.

As can be seen from the table, each of the policies (prudential, monetary, or fiscal policy) has a main goal. The tools used within these policies are designed to achieve the ultimate goal. Many economists also note that one tool cannot achieve two goals.

But this does not mean that each instrument must be defined exclusively for one purpose. From this point of view, it can be noted that monetary and fiscal policies can be combined for secondary purposes. When we take separately, the policies we mentioned above are not able to provide financial stability. For this purpose, coordination of prudential and monetary policy should be one of the main objectives. Monetarists believe that by changing government spending and taxes, only temporary aggregate demand can affect earnings and employment, and therefore can have a more monetized policy and a more influential role in managing inflation. Fiscal policy is an integral part of the fiscal policy of the state and expresses the policy of budget formation [5]. Fiscal policy is the state budget and tax policy. Fiscal policy is a policy implemented by the state using expenditures, taxation and debt to influence aggregate demand, employment and income. [19, p. 78]. The fiscal policy system is a system that regulates a country's economic activity, affecting government spending and tax rates. The line of fiscal policy was formed as a logical result of state economic policy, as well as the adopted system of measures and is an integral part of the economic and political life of the state. For this reason, the line of fiscal policy can be useful for ensuring economic growth in the national economy, relative general stability, and business activity and can lead to completely different results. Therefore, the fact that the state plays a significant role in creating stable economic growth of the financial system requires proper functioning and systematic implementation of fiscal policy. It confirms the business experience of various countries, both developed and developed countries, as well as newly independent countries that have experienced a transitional period. Does fiscal policy affect economic weaknesses? Based on some key points of macroeconomic theory. Let's try to explain. The government spending multiplier according to the key model is the following formula described as:

$$mult_{L.} = \frac{1}{1 - MPC(1 - t) - MPI + MPQ}$$

MPC - consumer addiction;
MPI - investment incentives;
MPQ - Trend Incl.
T - is the maximum tax rate.

Now the impact of fiscal policy on more specific situations in the economy. Let's clarify. Using the IS-LM-BP model, fiscal policy effectiveness depends on the degree of flexibility of the respective capital flows and the exchange rate regime. For example, capital in a country is immobile and floating exchange rate. Government spending ratios are defined as the ratio of the growth of GNP to the increase in government spending on the purchase of goods and services:

$$K_G = \frac{\Delta Y}{\Delta G}$$

You are here:
K_G - multipurpose government spending;
ΔY is the increase in the gross national product;
ΔG - indicates an increase in government spending.

It can be noted that the government spending multiplier is also expressed by the economic limitations of the final threshold of the quantitative trend - MPS and the newest trend of falling consumption - MPC:

$$K_G = \frac{1}{1 - MPC} = \frac{1}{MPS}$$

From here:

$$\Delta Y = \frac{1}{1 - MPC} x \Delta G = K_G x \Delta G$$

This indicates that if the state budget increases spending without increasing its income, such an increase will occur. It should be noted that taxes also create a multiplier effect, such as investments and government spending. At the same time, the impact of taxes on the gross national product compared with the impact of investment and government spending has its own characteristics. This means that the remaining income of the taxpayer is spent both on consumption and on accumulation. As a result, there is a decrease in consumption and a decrease in yield, as the income of the taxpayer decreases. The latter, on the other hand, determines the dependence on the consumption trend (MPS) on consumption reduction. Thus, to determine the reduction in consumption by including tax, it is enough to raise the tax burden to the end of the consumer trend:

$$C = \Delta T x b$$

Here ΔT - indicates an increase in taxes, and b - the final consumption trend (MPC). Accordingly, the level of tax reduction as a result of additional taxes levied on the final tax burden threshold (MPS):

$$S = \Delta T x (1-b)$$

From this we can conclude that if the amount of taxes decreases to ΔT, the remaining income of the taxpayer will also increase to ΔT. Accordingly, consumption costs will increase (ΔTxb). This, in turn, will lead to an increase in the share of production from Y_{-1} to Y_{-2}. The ratio of GDP growth to tax increase is a tax multiplier:

$$V = \frac{\Delta Y}{\Delta T}$$

ΔY is an increase in gross national product, while ΔT reflects an increase in taxes.

Another important issue for budget management is financial objectives in the context of optimal tax burden. The tax burden in the economy of Azerbaijan and its trends of change are the countries of the world in countries with different levels of development [9, p.90]. The reasons for the diversity of tax burden, non-oil in Azerbaijan Svyazinvest between economic growth rates and tax burden is a quadratic regression model. The Armey curve for the non-oil economy was established and evaluated based on the above criteria. The optimal tax burden was calculated (20). Estimated optimal tax burden and the structure of tax revenues by comparing the differences with actual indicators The reasons for analyzing and improving the current tax system of the country of the proposal were made.

Optimizing or maximizing growth According to the tax burden approach, there is a certain level of tax burden (Ţ) economic growth rates (g) continue to grow to this level and Ţ * at the maximum point. Model The essence is simple - the rate of economic growth of the direct tax burden and individual macroeconomic indicators, depending on the function, are expressed as GT = a0 + a1Ţt + α 2Ţt2 + a3Xt + x (1) Here Ţt is the tax burden, α0, α1, α2, a3 - estimated parameters of the model, Xt - macroeconomic indicators affecting non-oil economic growth τt, - a model error indicator. Tax revenues in the structure - the share of direct and indirect tax revenues - taking into account (1) of the following two forms of equality were estimated: GT = A0 + + a3Kgt a2Ţt2 a1Ţt + + + Add a4fd (1.A) b1Ţbt GT = B0 + + + b3Ţdt b2Ţbt2 revenues to GDP, CGT - growth rates of investments in non-oil sector (control variable) a, b - model design parameters, Fd - layout of location variable (2005, 2009 and 2014, non-oil economic growth rates sharply reduced), et - model residuals (separately for each model). From the above we can draw the following conclusion:

- an increase in government spending on increasing the volume of gross national product, reducing government spending, reducing the volume of gross national production;
- Tax increases will lead to a decrease in gross domestic product, while tax cuts will lead to an increase in gross domestic product.

At the same time, it should be noted that the multiplier effect of tax cuts is weaker than the multiplier effect of an increase in government spending. Because when the amount of taxes decreases, consumption partially increases, but each unit of government spending directly affects the gross domestic product. Therefore, this factor plays a crucial role in the selection of instruments of fiscal policy and in terms of performance evaluation. Suppose the government implements a stimulating fiscal policy. The state of the increase in procurement will have a tendency to the right of the economy and the economy in 2 points will be. That is, interest rates and GDP growth will take place. The interest rate of foreign capital will be attracted to the country with an increase, and the balance of capital operations will be positive. But GDP growth, in turn, will lead to an increase in imports into the country, which is a deficit in the current account deficit. In this case, the current account deficit in the immobility of capital flows will lead to a balance of payments deficit and lead to a decrease in the national currency. A reduction in national currency will lead to an increase in exports. At the same time, imports will be cheaper than imported goods. The increase in net exports, in turn, will push IB and BP to the right. As can be seen from the chart, GDP increased from Y1 to Y3 with stimulating fiscal policies. Thus, the combination of a floating exchange rate and low capital mobility has a positive effect on the effectiveness of fiscal policy. Now the floating exchange rate and capital mobility are fiscal to ex plain the impact of politics on the economy.

Figure 1: Immobile capital and floating exchange rate

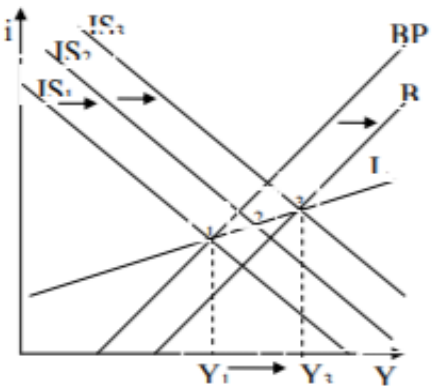
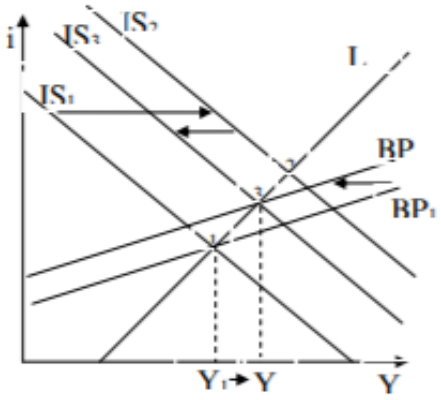


Figure 2: Floating exchange rate and capital mobility



3. BUDGET MECHANISMS AND THE ESSENCE OF FISCAL POLICY OF THE STATE

The Ministry of Taxes of the Republic of Azerbaijan will finance the state budget in the amount of 7,112.0 million. US dollars. against 7118.2 million manat provided. This is 4.5 million more than in 2014. manat or 0.1% more. 70.5% (or 5018.3 million Manat) of these funds accounted for income from the non-oil sector, which is 16.5% (or 711.6 million Manat) more than in 2014, the remainder of the funds transferred to the state budget through the Ministry of Taxes, i.e. 29.5% or 2099.9 million and the share of the oil sector. The State Customs Committee of the Republic of Azerbaijan transferred 1,590.0 million manat to 1,591.9 million manat, which is 5.4% more than in 2014 (or 81.1 million manat).

Table 2: Monetization level in Azerbaijan

Indicators	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
GDP (Mln.AZN)	50069	53995	57708	58978	59254	60298
M2(Mln.AZN)	10997	13806	16435	17436	18625	18938
Monetization level (%)	22	26	28	30	31	32

Thus, the national economy and the financial stability of the social security system are financial relations between control and analysis, as well as monetary authorities, established functions and tasks necessary to carry out sufficient financial resources for the development of such relations in the negative impact of neutralizing manifestations and prevention, tools and procedures complex. The number of tax benefits applied to citizens of Azerbaijan is 46. This is half of all tax deductions. Persons engaged in entrepreneurial activities are invited to be taxed at a rate of 20% with deductible expenses. Monthly income of individuals employed in 5 levels (12%, 20%, 25%, 30%, 35%) in 2001, Level 3 Scale (12%, 25%, 35%) for 2002-2003 and was involved in income tax. Since 2004, the system has been downgraded to a two-tier system. Revenues from paid services of state-funded organizations amounted to 222.6 million manat. This is 7.4% (or 15.3 million manat) more than in 2014 [24, 35].

Table following on the next page

Table 3: Main macroeconomic reporters implementation of the Azerbaijan republic for 2016-2019

Indicators	Unit of measurement	Report		*Forecast*				
		2013	2014	2015	2016	2017	2018	2019
REAL SECTOR								
With GDP market prices	**mln AZN**	**58182,0**	**58977,8**	**57151,7**	**57735,1**	**60190,4**	**63143,2**	**67511,7**
real growth rate	%	5,8	2,8	3,3	1,8	2,6	3,6	5,0
deflator	%	0,4	-1,4	-6,2	-0,8	1,6	1,2	1,8
Oil sector, GDP, market prices	**mln AZN**	**24968,4**	**23009,2**	**17829,0**	**16285,3**	**15940,5**	**16103,2**	**17348,5**
real growth rate	%	1,0	-2,9	-0,6	-1,7	-2,4	0,3	4,9
Deflator	%	-3,0	-5,1	-22,0	-7,1	0,3	0,7	2,7
share (in GDP)	%	42,9	39,0	31,2	28,2	26,5	25,5	25,7
Non-oil sector, GDP, market prices	**mln AZN**	**33213,6**	**35968,6**	**39322,7**	**41449,8**	**44249,9**	**47040,0**	**50163,2**
real growth rate	%	10,0	7,0	5,9	3,4	4,6	4,8	5,0
deflator	%	3,2	1,2	3,3	2,0	2,1	1,4	1,5
share (in GDP)	%	57,1	61,0	68,8	71,8	73,5	74,5	74,3

Source: Webpage of the Ministry of Economy and Industry of the Republic of Azerbaijan. www.edoconomy.gov.az

As is known from the table, for the first nine months of 2016, state budget revenues amounted to 1,208.3 million. US dollars. against 10,103.1 million manat or 16.5 percent less than in the previous year. The income forecast of the Ministry of Taxes of the Republic of Azerbaijan amounted to 4926.3 million manat included. 78.0 percent of this amount (9.6 percentage points more than the same period last year) or 3.843.8 billion manat. The share of revenues from the non-oil sector is 374.6 million manat compared to the same period of 2015. manat or 10.8% more. For the first nine months of 2016, state budget revenues amounted to 10,103.1 million. US dollars. manat, expenses - 10,622.2 million rubles. 519.1 million manat. The budget deficit (deficit) was created in the amount of 1,000 manat. In 2015, $ 48.0 million. US other income of 90.5 million manat or 2 times more than the forecast. [7]

Table 4: The expenditures of the state budget of the Republic of Azerbaijan for 2012-2017 are as follows

Indicators with mln. Manats	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
To economy	4889.9	6803.2	6960.7	8205.7	7598.7	6408.9
To education	1180.8	1268.5	1453.2	1437.7	1553.9	1605.1
To medicine	429.2	493.4	609.4	618.9	665.3	708.2
To science	92.8	106.1	116.7	117.0	124.2	113.2
To Legislation and jurisdiction, content of local government	303.0	281.9	342.3	349.3	449.7	430.9
Profit breakdown	362.9	303.2	135.0	352.8	308.4	627.8
To the culture, and press, and sport	168.4	189.9	240.8	274.9	294.0	272.4
To Social Foundation	1123.0	1495.4	1769.5	1750.3	1971.2	1857.2
Support for law enforcement, judicial and prosecutions	668.5	710.3	929.2	1049.3	1103.6	1105.7
Payments of the state external debt	84.9	223.6	185.9	617.3	359.3	0.0
Payments of the state internal debt	6.9	120.2	26.5	110.9	19.6	0.0
Other expenses	2818.5	4048.8	4782.2	4610.2	4569.5	5283.0
General expenses of the state budget	11765.9	15397.5	17416.5	19143.5	18709.0	17784.6

In 2016-17, the state budget expenditures will amount to 84.3% or 17,786.8 million manat was executed. State budget expenditures by 2015:

- 10 361.5 million or 58.2% of current expenses;
- 6,720.9 million or 37.8% of capital expenditures;

As shown from the table a special place is occupied by the fiscal system, which acts as the vanguard of economic reforms carried out in the achievements of the Republic's economy. Reforms in the financial system cover not only the fiscal policy of the government, but also the internal structure of this system (Table 3).

4. CREDIT POLICY

One of the factors that temporarily affect foreign exchange demand in the markets is the credit policy of banks. The loans offered by Manat may increase the demand for currency and put pressure on the national currency. However, against the background of such factors as a weakening of the repayment potential of the real sector loan, an increase in problem assets and an increase in the debt burden due to the devaluation of the financial position of borrowers, as a result, compared to December 2015, credit investments in the economy decreased by 44% or 9.6 billion manats in November of this year. As a result, banks are decreasing liquidity. However, banks are not interested in lending existing risks. Mental auctions of the Central Bank allow them to hopelessly manage. Moreover, this is another factor that reduces the demand for loans in manats with higher interest rates. Thus, the probability of lending in manat in 2018 is likely to increase. This reduces the likelihood of pressure on the speed of manat in the indicated direction.Currently, the share of monetary policy has played a special role in fiscal policy, which is the main instrument for regulating the economy by the state, when the share of the non-state sector in gross domestic product has increased, and the transition to a more market economy in our country has played a special role. In modern conditions, the composition of revenues and expenditures of the state budget has undergone major changes. In the budget policy, the share of social spending, investment and capital expenditures was increased, budgetary salaries, pensions and state budget scholarships were minimized, relations with the state budget and local budgets, as well as the social security budget and other extrabudgetary funds and mutual economy-based. Economic stabilization creates tremendous opportunities to improve the efficiency and effectiveness of fiscal policy, including its fiscal tax policy, in the modern world, where economic processes are accelerating and economic security is being strengthened. The fiscal policy is considered as the main tool of economic policy as a purposeful activity of the state to determine the quantitative parameters and the main tasks of the formation of budget revenues [23, p. 110]. Monetary policy is crucial for the regulation of the economy of our country, and the methods for its implementation are as follows.

- Determination of interest rates on centralized credit operations.
- Determination of mandatory reserve standards.
- Conducting banking operations with securities in the free market.
- Providing centralized loans to credit institutions.
- Implementation of currency intervention and exchange rates.
- Restriction of banking operations.

Since the second half of 1994, the monetary policy pursued by the National Bank has been adjusted. The conducted monetary policy led to multivalued inflation. From this point on, the interest rate was a special role in monetary policy and the distribution of financial resources until the new policy was implemented. In times of crisis, the Central Bank seeks to intensify the specification by increasing quotas and lowering interest rates.

On the contrary, due to the rise in prices during the growth and imbalances in the economy, the Central Bank reduces lending. But monetary policy should not only maintain macroeconomic stability, but also promote and improve production and improve the overall economic environment. A strict monetary policy that ensures stability of the exchange rate and inflation is so important that it is possible to minimize the negative impact of politics on the economy. Today it is important that stable rates and low inflation are necessary for the successful implementation of economic reforms. To achieve this goal, it is necessary to create microfinance stability, which is real financial stability based on a sustainable economy. For this purpose, monetary policy should be linked to other economic policy blocks and serve the entire functioning of the economy as a whole.

5. EFFECTIVE IMPLEMENTATION OF FISCAL POLICY

Since budget revenues, budget commitments, budget deficit management are key areas of budget and tax policy, the effectiveness of this policy is assessed as the activities of the executive authorities in these areas. Government fiscal policy should be based on limiting inflation, limiting government spending to maintain relatively low interest rates in the credit market. Effective implementation of fiscal policy has a strong impact on the real economy. Therefore, the dynamics of key macroeconomic indicators serves as a benchmark for the implementation of fiscal policy (Table 3). In modern conditions, when new forms of ownership are created, economic rights and government bodies have broad rights to implement socio-economic changes, the relevance and importance of effective fiscal and tax policies are increasing. In the first nine months of 2016, the State Customs Committee of the Republic of Azerbaijan fulfilled a forecast of 125.6% to the state budget of 1,653.8 million manat, which is 529.6 million manat compared to the same period last year. manat or 47.1 percent more. From the State Oil Fund of the Azerbaijan Republic in the state budget 3260.0 million. Manat was included in the project, which is 2370.5 million. Manat or 42.1 percent less. Revenues from paid services of state-funded organizations amounted to 192.9 million manat. In the budget of other income AZN 70.1 million was received. The state budget revenues for July-September 2016 amounted to 3969.3 million manat was executed. [9].

Table 5: Money aggregates (end of period)

									mln. manat
Year, Month	Broad Money Supply (M3)	of which						Money multiplier	
		M2 money aggregate	of which				Deposits in hard currency*	Ratio of M3 to Reserve money	Ratio of M2 to manat Reserve money
			M1 money aggregate	of which		Time deposits in manat*			
				Cash outside banks (M0)	Demand deposits in manat*				
2006	3435,0	2135,5	1839,6	1311,4	528,2	295,9	1302,8	1,68	1,33
2007	5897,3	4401,6	3621,71	2713,5	908,2	779,9	1495,6	1,71	1,37
2008	8494,5	6081,24	5105,19	4145,9	959,3	976,1	2413,2	1,71	1,27
2009	8469,4	6169,41	5231,46	4175,0	1065,0	929,4	2300,0	1,73	1,27
2010	10527,6	8297,57	6838,46	5455,9	1263,1	1578,6	2230,0	1,61	1,30
2011	13903,5	10997,43	8796,28	7158,4	1637,9	2201,2	2906,0	1,64	1,33
2012	16775,5	13806,58	11122,31	9256,8	1865,5	2684,3	2968,9	1,57	1,31
03	14320,1	11263,69	9010,15	7241,6	1768,6	2253,5	3056,4	1,69	1,35

06	14527,7	11753,89	9475,61	7752,0	1723,6	2278,3	2773,8	1,66	1,36
09	15343,6	12402,58	10069,93	8315,7	1754,3	2332,7	2941,0	1,63	1,33
12	16775,5	13806,58	11122,31	9256,8	1865,5	2684,3	2968,9	1,57	1,31
2013	**19289,4**	**16434,8**	**12736,9**	**10458,7**	**2278,2**	**3697,9**	**2854,7**	**1,64**	**1,41**
01	16619,3	13685,94	10644,17	8817,6	1826,5	3041,8	2933,4	1,67	1,39
02	16765,1	13905,87	10857,35	8857,6	1999,8	3048,5	2859,2	1,66	1,38
03	17445,2	14184,52	11100,92	8999,2	2101,8	3083,6	3260,6	1,70	1,39
04	17480,4	14369,79	11226,77	8983,9	2242,9	3143,0	3110,6	1,72	1,42
05	17633,9	14515,32	11292,06	9098,2	2193,8	3223,3	3118,5	1,73	1,43
06	17506,3	14682,52	11470,31	9219,7	2250,6	3212,2	2823,8	1,69	1,43
07	17954,1	14916,31	11630,12	9455,1	2175,0	3286,2	3037,8	1,71	1,43
08	18002,8	15163,18	11796,89	9516,9	2280,0	3366,3	2839,6	1,68	1,43
09	18210,2	15264,93	11817,31	9560,0	2257,4	3447,6	2945,2	1,70	1,44
10	18449,5	15495,52	11932,93	9724,4	2208,6	3562,6	2954,0	1,70	1,44
11	18856,4	15673,90	12078,14	9849,4	2228,8	3595,8	3182,5	1,73	1,45
12	19289,4	16434,8	12736,9	10458,7	2278,2	3697,9	2854,7	1,64	1,41
2014	**21566,4**	**17435,8**	**12830,4**	**10152,5**	**2678,0**	**4605,4**	**4130,5**	**1,82**	**1,51**
01	19044,9	15982,9	12277,3	9911,7	2365,6	3705,6	3062,0	1,71	1,45
02	19273,6	16124,7	12351,4	9956,1	2395,3	3773,3	3148,9	1,71	1,45
03	19377,0	16132,3	12300,5	9953,6	2346,9	3831,8	3244,7	1,73	1,45
04	19792,6	16489,7	12437,8	10050,7	2387,1	4051,9	3302,9	1,76	1,48
05	19968,6	16695,7	12545,8	10207,2	2338,5	4150,0	3272,8	1,76	1,48
06	20569,2	17005,1	12710,6	10335,5	2375,1	4294,5	3564,2	1,73	1,48
07	21225,4	17435,1	13036,8	10508,9	2528,0	4398,2	3790,3	1,83	1,49
08	21306,4	17452,4	13000,9	10488,0	2512,9	4451,5	3854,0	1,80	1,49
09	21133,1	17367,8	12834,7	10390,0	2444,7	4533,1	3765,3	1,81	1,50
10	21372,1	17370,0	12680,8	10306,4	2374,4	4689,2	4002,1	1,84	1,51
11	21689,8	17525,2	12775,7	10318,3	2457,4	4749,4	4164,6	1,88	1,51
12	21566,4	17435,8	12830,4	10152,5	2678,0	4605,4	4130,5	1,82	1,51
2015	**21286,9**	**8678,3**	**6897,2**	**4775,93**	**2121,2**	**1781,1**	**12608,6**	**2,8**	**1,2**
01	20568,5	16236,5	11753,5	9347,9	2405,5	4483,0	4331,5	1,91	1,54
02	20115,2	13607,0	10108,2	7957,7	2150,4	3498,9	6508,1	2,07	1,49
03	19507,4	12493,1	9292,7	7396,6	1896,1	3200,4	7014,3	2,19	1,50
04	18982,9	11004,0	8267,6	6420,9	1846,7	2736,4	7978,9	2,41	1,48
05	18966,8	11051,4	8363,2	6492,7	1870,5	2688,3	7915,4	2,38	1,45
06	18849,4	10991,8	8301,0	6355,6	1945,4	2690,8	7857,6	2,41	1,47
07	18855,4	10853,5	8213,6	6374,5	1839,1	2639,9	8001,7	2,42	1,45
08	17734,3	9545,7	7089,5	5502,8	1586,7	2456,2	8187,7	2,58	1,50
09	17684,0	9368,9	7189,0	5456,9	1732,1	2179,9	8315,0	2,38	1,33
10	17369,5	9363,6	7214,7	5429,3	1785,4	2148,9	8005,8	2,36	1,33
11	17444,5	9050,0	6980,3	5176,9	1803,4	2069,7	8394,4	2,49	1,34
12	21286,9	8678,3	6897,2	4775,9	2121,2	1781,1	12608,6	2,82	1,25
2016	**20889,6**	**11546,3**	**8960,3**	**6376,9**	**2583,5**	**2586,0**	**9343,3**	**2,26**	**1,47**

01	19930,2	8001,7	6273,7	4485,0	1788,3	1728,0	11928,5	2,99	1,37
02	19598,8	8686,4	6793,2	4960,2	1833,0	1893,2	10912,5	2,68	1,36
03	20635,1	8943,0	7054,6	5034,9	2019,7	1888,4	11692,1	2,79	1,37
04	20565,7	9205,8	7413,7	5303,5	2110,2	1792,1	11360,0	2,75	1,37
05	20629,7	9600,7	7747,3	5578,4	2168,9	1853,4	11029,0	2,47	1,26
06	20851,5	9806,5	8017,6	5670,9	2346,7	1789,0	11044,9	2,50	1,28
07	21101,9	10096,6	8401,8	5839,5	2562,3	1694,8	11005,3	2,45	1,32
08	21154,1	9861,4	8159,2	5763,4	2395,8	1702,2	11292,7	2,50	1,33
09	20134,2	9966,4	8346,1	5682,6	2663,5	1620,3	10167,7	2,52	1,46
10	20122,6	10679,0	8157,7	5742,3	2415,4	2521,3	9443,6	2,29	1,43
11	20271,9	10942,4	8387,0	5833,5	2553,5	2555,4	9329,5	2,24	1,42
12	20889,6	11546,3	8960,3	6376,9	2583,5	2586,0	9343,3	2,26	1,47
2017									
01	21034,9	10749,3	8185,5	5922,9	2262,6	2563,8	10285,5	2,41	1,47
02	20151,2	10764,0	8240,2	5993,2	2247,0	2523,8	9387,2	2,42	1,54
03	19902,9	10982,0	8410,8	6145,2	2265,6	2571,1	8920,9	2,08	1,51
04	21081,8	11610,1	8955,4	6348,6	2606,8	2654,6	9471,8	2,03	1,52
05	20856,4	11568,5	8930,5	6538,3	2392,2	2638,0	9287,8	2,07	1,49
06	20973,0	11435,9	9263,4	6774,4	2488,9	2172,5	9537,1	1,99	1,38
07	20824,4	11338,5	9288,7	6937,0	2351,7	2049,8	9485,9	1,94	1,36
08	20556,3	11137,5	9402,4	7001,1	2401,2	1735,2	9418,8	1,93	1,32
09	21133,7	11464,5	9800,7	7092,3	2708,4	1663,8	9669,2	2,11	1,32
10	21449,6	11546,7	9718,6	7089,8	2628,9	1828,1	9902,9	2,18	1,35
11	21517,9	12044,7	10105,0	7149,4	2955,6	1939,7	9473,2	2,15	1,39
12	22772,1	12466,4	10544,2	7490,3	3053,9	1922,2	10305,6	2,31	1,46
2018									
01	22755,4	12272,7	10192,2	7381,5	2810,7	2080,5	10482,7	2,32	1,40
02	22868,1	12744,9	10434,4	7311,7	3122,7	2310,5	10123,2	2,23	1,39
03	22459,5	13005,9	10691,7	7404,2	3287,6	2314,1	9453,6	2,08	1,37
04	22120,0	12425,1	10201,0	6919,3	3281,7	2224,1	9694,8	2,28	1,48
05	22145,1	12599,1	10273,6	7053,5	3220,1	2325,5	9546,1	2,28	1,50
06	22683,6	12984,7	10656,1	7173,8	3482,3	2328,6	9698,9	2,34	1,51
07	22728,0	13347,2	11036,9	7381,4	3655,5	2310,4	9380,7	2,25	1,50
08	22431,6	12875,4	10601,8	6905,6	3696,2	2273,7	9556,2	2,40	1,55
09	23146,4	13498,9	11108,1	6878,4	4229,8	2390,7	9647,5	2,37	1,52
The deposits of non-residents and central government are excluded									

Source: The Central Bank of the Republic of Azerbaijan,2018

As can be seen from the table, M2 in 2018 amounted to 12,744.9 billion manat. According to the statistical bulletin of the Central Bank, at the end of January, the aggregate M2 monetary aggregate amounted to 12,272.7 billion dollars. pounds. Compared to January, this figure increased by 472 million manat or 3.8 percent. The ratio of M2 to manat was 1.19 February in February 2018 and 1.54 in the corresponding period of 2017. Note that the M2 aggregate is equal to the sum of "cash outflows from banks (M0), manat deposits in manats and fixed

deposits in manats". Currency aggregates vary in different countries. The IMF has an overall M1 for all countries and is a broader "quasi-currency" indicator (term and savings bank accounts). The Central Bank of Azerbaijan has monetary units M0, M1, M2, M3:

- M0 = cash in circulation (coins, banknotes).
- M1 = M0 + checks, savings and deposits (as well as bank debit cards), balances of national currency in the accounts of organizations.
- M2 = M1 + emergency investment.
- M3 = M2 + deposits, certificates and government bonds.
- In addition, M4 units are also used in several countries. For example, in the United Kingdom, the M4 totality includes the cash flows in circulation, the total amount of loans issued and the amount of public debt.

In a country, the tax system should ensure that high profits along with higher taxes also create incentives to maintain high profits. In this case, the amount of taxes affects aggregate demand, the redistribution of wealth and aggregate supply. The level of taxes, their structure, is one of the main factors influencing the behavior of economic entities. Thus, by changing the structure of the state, the government affects the volume of aggregate demand, aggregate consumption, national savings and investment costs. At the same time, an increase in the tax burden on certain activities in the economic literature indicates a negative impact on economic behavior and economic growth. Although an increase or decrease in current expenditures of the state budget is important for regulating domestic demand, the allocation of state budget expenditures to current and investment expenditures is crucial in terms of economic growth (39, p. 89). The state fulfills the internal and external duties of its respective authorities through the monetary and material resources created by fiscal policy that is characteristic of all countries. In carrying out these duties, the state pursues social goals, such as improving economic growth rates of fiscal policy, smoothing out periodic fluctuations in the economy, achieving full employment and achieving a moderate level of inflation. These goals are achieved through various types of tax and tax rates, transfer payments and other instruments of public spending in the implementation of fiscal policy of the state. In society, there are limited opportunities for a range of social needs based on market principles. Because it is impossible to limit the use of public goods, and this restriction is undesirable. In such an environment, market people cannot benefit from public goods. Therefore, the state is investing, at least in the creation of public spaces. In addition, the investment decisions of the state are based on an assessment of social efficiency, and not on financial efficiency. The state improves social security by implementing small investment projects with high social efficiency and financial efficiency. In this regard, it is necessary to invest in the development of the industrial, social and institutional infrastructure of the state, which creates favorable conditions for economic activity, increases the competitiveness of the national economy, serves the social development of the population and regulates the country. At the same time, the role of the state in the investment activity in the country depends on the opinion of the government, the level of the country's basic infrastructure, the private sector with the ability to provide infrastructure services, forms, etc. This depends on such factors. In addition, public investment cannot be limited to infrastructure investments. Thus, in some cases, the low level of development of market entities requires the participation of the state in commercially oriented investment projects that are of great importance for the economic development of the country. All this requires state intervention in society and requires the provision of state blessings to the state. The state has a direct impact on the fiscal or fiscal policy of economic resources and the redistribution of income. Thus, the factors influencing the use of economic resources in different industries, as a factor determining the costs of production. Most state budget revenues are usually based on taxes. In most countries, the tax system is the main source of funding for social and economic programs

implemented by the state. However, the rent from natural resources also has a significant impact on the formation of state budget revenues. Increasing revenue from the use of government spending and government spending is the main purpose of taxation. At the same time, the state has a significant impact on the distribution of income and resources through taxes. Three aspects of taxation are important in terms of economic growth and macroeconomic equilibrium. First, if the impact of taxes on the influence of economic entities and their long duration, they can reduce the economic efficiency of consumers, producers and employees. These impacts should be considered when assessing the effectiveness of budget expenditures to be financed in the current period. Secondly, the divergent impact of the vagina on the income of the population, despite its economic efficiency, requires consideration of equality or equality that needs to be addressed. Third, the practical application of taxation rules and associated costs affects economic efficiency and public opinion on the integrity of the tax system. Public investment increases the pace of material, financial and information flows, reduces their cost and increases human capital, placing them in a country that goes beyond the scope of the private sector. These factors create favorable conditions for investment activity in the private sector. In general, public investment in economic growth (10) mainly affects the following ways [23, p. 72]:

- reduction of costs due to partial impact on operating costs, increased market access and access to information and increased competitiveness in import and export markets;
- increases the productivity of other factors (labor and other capital), which improves access to additional technologies, improves access to information flows and stimulates additional private investment;
- Structural impact on supply and demand. For example, the state infrastructure system helps to diversify the economy.

6. CONCLUSION AND RESULTS

Fiscal policy should be determined in accordance with the concept of socio-economic development of the country. This policy is gradually moving away from tight financial policies, reflecting macroeconomic indicators, increasing tax policy flexibility, increasing financial discipline, regulating the exchange rate of manat and other measures. The implemented comprehensive macroeconomic measures provide for the creation of favorable economic conditions for stable economic growth, increasing production volumes and increasing the level of employment in the non-oil sector, dynamic and balanced economic development of the country's regions, ensuring the economic independence of municipalities and local governments. In our opinion, the formation of the System of National Accounts used in the global budget classification, the International Financial Statistical Methodology and classifications used in different countries will help to ensure a more transparent and transparent classification of budget indicators, accounting for income and expenditure and economic direction, may provide for further differentiation of direction funds allocated to perform the functions and responsibilities of state and non-governmental bodies funded or knitted with the budget. Tax relations, the process of integration of our country's economy into the world economy, ensure that the tax policy pursued in the country is efficient, fair and at the same time requires a stable tax system. At the present stage of economic reforms in the country, investments in the development of industrial and public spaces should be part of the state budget. Budget revenues in fiscal policy of Azerbaijan act as the main source of state regulation of the economy. The correctness of the political context of this source may affect the budget mechanism with the possibility of reducing income not related to equity participation in the economy. From this point of view, it is necessary to direct the mechanism of the budget system to the direction of economic development and focus on actual and strategic planning costs. An important role is played by flexible and purposeful work to achieve macroeconomic stability.

Therefore, the implementation of fiscal policy primarily affects the macroeconomic situation in the country. The stabilization of the economy accelerates economic growth in the modern world and increases the economic security of the country, including improving its fiscal policy, including its fiscal and tax policies, and expanding the scope of its activities. In this regard, I consider it appropriate to carry out the following in order to increase the efficiency of fiscal policy.

- Stimulation of monetary policy should be regulated. This policy is aimed at stimulating the economy. Stimulating monetary policy focuses on the central bank. At the same time, the requirements for reserves should be reduced; the central bank should buy government securities.
- It is necessary to regulate restrictive monetary policy. You should avoid business activity, reduce inflation, and limit the monetary policy that the central bank should cover. These measures will: increase reserve requirements and sell government securities to the central bank.
- It is important to thoroughly study and analyze the tax policy of neighboring countries and other countries in the region, as well as the tax burden policy in order to increase the competitiveness of the national economy in terms of the optimal tax burden policy implemented to ensure the inflow of foreign investment in the country's economy.
- Preparation and implementation of a rational mechanism for the distribution of the tax burden on economic sectors, certain categories of economic agents is of great importance at the present stage of economic development. From this point of view, it is possible to achieve a balance of production, consumer and production factors with a gradual transition from production to tax burden.
- It may be advisable to move from a passive tax policy to an active tax policy at the present stage of economic development. For this, it is important to introduce the principles of active taxation and modernization, taking into account the need to create free technological economic zones and encourage the development of the economy of innovation and knowledge.

The distribution of revenues focuses on the formulation of the revenue base of local budgets, which is more responsive to the creation of a stable, efficient budget system at the local level. But there are some drawbacks. The provision of large tax authorities to local governments can lead to inequality in tax rules and related economic relations, violations of the location of economic facilities and differences in investments. It should be borne in mind that due to the imbalance of the tax potential, the use of the tax mechanism of taxation creates inequality in the level of budgeting, which makes the system of local budgets more socially tense if there is no unstable, operational budgetary regulation. Due to the aforementioned reasons, the method of tax distribution does not ensure the normal functioning of local budgets. Therefore, the method of taxation in the distribution of income is used in conjunction with the method of their distribution. A certain share of tax revenue can be transferred to the local level, even if the central part of taxes is levied by the center. The system of local additions for taxes levied on the use of the state tax base is economically viable. A stable state budget is the basis for the extensive production and dynamic development of the socio-economic situation of the population. Disruption of its balance and, as a result, the deficit of the budget deficit can create problems for the recycling process and the balance of the socio-economic status of the population. The credit policy of the Banks in Azerbaijan should consist of thoughtful operational concepts, rules and standards for credit operations, which are set out in accordance with the principles and rules of corporate governance.

The Credit Management Guide should clarify the following:

- Credit rating should be regulated;
- Regular analysis of individual loans of the Bank, the assets should clearly define the rules for classification and allocation of resources;
- It is necessary to determine the general structure and specific guidelines for solving problem loans;
- Take into account the risk of off-balance sheet risk;
- Procedures should be resumed to ensure that loan loss provisions, loan payments and expected cash flows are reflected;
- Credit, asset classification and resource creation
- Changes to the structure of regular reports should be added to the supervisory board;
- It is necessary to apply new standards for consistent assessment of the sustainability of the guarantee and the valuation of collateral;
- The loan or part of the loan amount (principal and interest amount) should establish procedures for determining the debt as impaired during the non-strengthening of the contract;
- Collateral valuation procedures should be updated with net realizable value.

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THE STATE OF APPLICATION OF ELECTRONIC SYSTEMS IN HIGHER EDUCATION IN AZERBAIJAN

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ABSTRACT

The article deals with one of the important requirements - the processes in the direction of nationalizing programs used in the e-management system. E-education is the bridge between labour activity and education today. In return, it makes broad opportunities for education along the life. The article also encompasses 28 indicators of e-knowledge on Azerbaijan Information Society Group analyzed by State Statistics Committee. Beside this, application of electron systems to higher educational institutes has been analyzed. State position is indicated in this direction. Strategy and laws on Azerbaijan's education sphere are mentioned.

Keywords: *e-management system, e-resource, e-lecture, interactive training, higher education, social reading*

1. INTRODUCTION

The main objectives of the Azerbaijan Information Society include the creation of a legislative base for information and knowledge about the society, the development of the human factor, and to support the rights of citizens to receive, disseminate, and use of information. The objectives also include the formation of e-government and e-commerce, strengthening the economic, social, and intellectual potential of the country, as well as the establishment of a sustainable and knowledge-based economy, and enhancing the country's modern information and communication infrastructure. Doing so will includestructuring a single national electronic information space, the introduction of e-management systems in the higher education system, improving the use of electronic resources, identifying the ways to provide teachers and students with employment and comfort, and implementing different social reading programs apart from traditional lectures in classrooms while providing for information security and the elimination of electron retention[1]. The tendency of the society to embrace global informatization depends directly on the development of educational institutions. This requires the creation of an uninterrupted educational system that ensures that everyone will to have access to a high quality fundamental education according to each person's desires and needs that is available anywhere and anytime. For this reason, the introduction of electronic education (e-learning) related technology is essential to establishing such an education system. E-learning technology provides the most effective tools for directing people to new types of education and to developing the skills and abilities needed for lifelong learning. E-education creates enormous opportunities for lifelong learning by building a bridge between labour and education.

2. CURRENT SITUATION

The ways in which people communicate has undoubtedly changed recently. Many people now use public networkingthat is conducted on Facebook and Twitter in the place of face-to-face dialogue, and phone conversations. There is no real difference between these types of communicate. For example, smart phones have become an integral part of student life that allows student to rapidly communicate with their friends and family. Currently, much progress has been made on improving the internet resources of Azerbaijan. This has increased the interest of pedagogical staff in using the internet as an education tool in both secondary and high schools. Higher educational institutes of Azerbaijan have been provided with computers and internet services. Ongoing analysis shows that these are being used efficiently for various types of courses. Today, teachers enthusiastically prepare lessons using e-resources in the e-management system. "State Strategy under Development of Education in the Azerbaijan Republic" was approved by an order dated October 24, 2013 of the President of the Azerbaijan Republic[2]. Itsays: "The role of education the economy has significantly increased in modern life. Education must not only serve to teach required skills and knowledge related to economics but must also serve to prepare citizens for their future life and integration into society comprehensively. The most important role of education in economic life is to meet the educational requirements needed for the livesof human beings. Meanwhile, rapid innovations regularly require knowledge and skills to be refreshed. For thisreason, skills and knowledge are required in order to master new smart technologies and relevant professions. Education plays an important role in the development of a knowledge-based economy. Today's information knowledge society creates a great opportunity to socialize individual knowledge via the internet environment. Azerbaijan has implemented many reforms in this direction. For this purpose, two documents have been approved namely the "Azerbaijan 2020:Look into the Future" Development Concept approved on December 29, 2012, by an order of the President ofAzerbaijan[3]and "Strategic Road Maps for the Perspectives of the National Economy" approved on December 6, 2016[4] by the Republic of Azerbaijan. These state programs support therelated sectors of the knowledge economy such as high quality education, effective fundamental science, knowledge production, high-end technologies, effective science such as technical venture business as well as the realization and transfer infrastructure of ideas. E-learning has been reflected by a number of documents approved for the development of the national educational system in Azerbaijan. Thus, the Law of the Republic of Azerbaijan No. 833-IIIQ dated June 19, 2009 was approved. Azerbaijan hosts more than 1 million internet users. Including 12% of the populations with a gender based breakdown of 69.9% male and 30.1% women. Those internet network users are group as follows: 36.4%at home, 23.0% in internet clubs, 19.8% at work, 14.9% at educational institutes, 2.1% in libraries, and 3.8% in other places. Research studies have revealed that one of the problems is the Azerbaijan doesn't have the Law on e-management systems.

3. PROBLEM AND OPPORTUNITIES

E-learning processes are complex at the higher educational institutions of Azerbaijan.

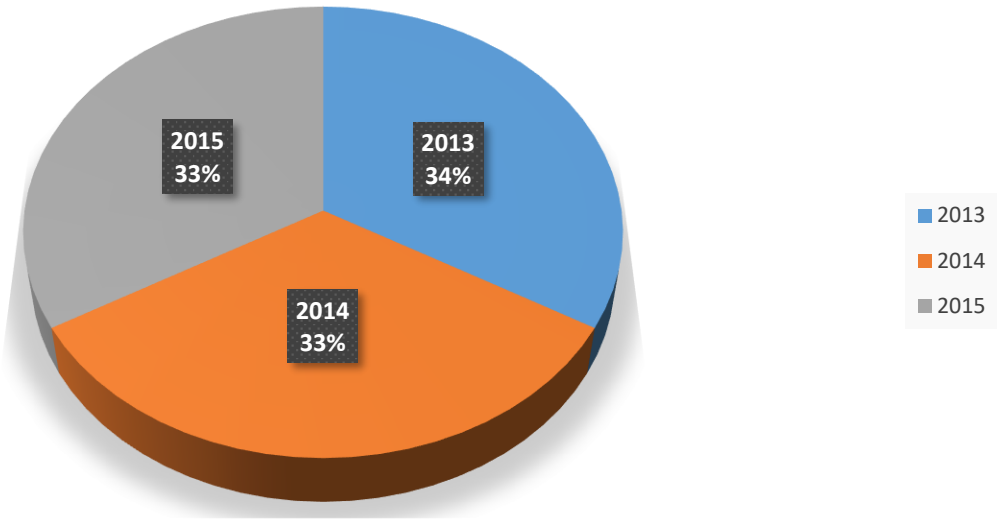
- There is no any state strategy for the development of e-learning in Azerbaijan.
- Uncertainty of assessment criteria for the evaluation of e-learning tools makes e-training realization processes complex.

Existing problems have been analyzed during the research activity, and some proposals have been put forward to eliminate such problems. 28 indicators of e-knowledge on Azerbaijan Information Society of State Statistics Committee have been analyzed. The sample of 2013-2015 years report is the proof of facts mentioned above.

Table 1: E-knowledge of information society group.

Indicator	**2013**	**2014**	**2015**
Distribution of Internet-related actions, % of total	100,0	100,0	100,0
Usage ofsearch engines to find information %	17,7	17,3	17,5
Sending emails with attached files %	17,8	17,2	17,0
Communication in chat %	20,5	21,2	21,8
Usage of internet to make a call %	16,4	16,5	16,8
Usage of the same-level files for sharing movies, music, etc.	20,2	20,1	20,3
Creating a Web page (Web page, Website) %	6,9	6,8	6,6
Other activities %	0,4	0,5	0,4

Figure 1: Distribution of Internet-related actions, % of total



The main goal here is to introduce innovative technologies to create a transparent and effective educational environment, improve the quality of education, and raise university management to the level of modern requirements. We assume that as a result of the introduction of e-management systems in the university all stages of education will be informatized, transparency will be fully satisfied, and the quality of teaching will increase. We can set an example the results of the research for student's knowledge assessment done by the Azerbaijan State University of Economics through the e-management system. Teachers prefer to deliver lectures to students through e-system. However, the quality of lectures is not guaranteed. Social reading initiatives aren't preferred during lectures in the auditoriums. Besides, e-books aren't used. However, trainers who participate in collaboration with students can form a productive environment of social reading initiative for active learning. E-reading platform that enables social reading is not used. According to our researches, there is no any requirement to prepare lectures. It is one of the main problems. The application of Internet resources and technologies in the educational system will enable people to increase their knowledge and skills by using internet resources and social services not making any payment or leaving their places. The PRT colloquium (mini-conference) program at the Sidney University of Australia was implemented at STEM departments. Teachers exchanged their experiences with colleagues at the university. Observations were conducted by pedagogical and disciplinary experts[6].

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CONCEPTUAL BASIS OF ENTREPRENEURSHIP DEVELOPMENT IN NON-OIL SECTOR

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ABSTRACT

The evolution process of scientific views on entrepreneurship have been looked through the theoretical, conceptual aspect and leading force, strategic resource of entrepreneurial activity, especially small and medium-sized enterprises (SMEs), enabling the economic, technological and intellectual potential of our country have fully and effectively implemented through business activities and was emphasized in the article. For the determination of strategic goals such as sustainable growth of non-oil sector and high share of gross domestic product in the current period for overcoming oil dependence of our economy and to secure insurance against oil prices fluctuations in world markets, dynamism of entrepreneurial activity, importance of defining new tasks in relation to targets and stimulus, development of new conceptual bases of their implementation have been pointed out. From the conceptual point of view a great attention paid to the importance in the article to the "Strategic road map for the consumer goods production at small and medium entrepreneurship level in the Republic of Azerbaijan" approved by the President of the Republic of Azerbaijan on December 6, 2016. Taking into cosideration the innovation-based development as one of the priority directions of SME development in the non-oil sector of the country by expanding opportunities for financing private innovation investments with legislative, organizational and economic measures implemented for the improvement of business environment. It is planned to work out the mechanism for solving investment problems, increase financial sustainability, expand access to long-term and low-interest loans, to provide concessional loans and insurance, loan repayment mechanisms, credit allocation and management for the simplification of the system has been justified as an important issues in the article.

Keywords: *non-oil sector, small and medium-sized business, innovation, state support mechanism*

1. INTRODUCTION

Nowadays, the development of entrepreneurship in the non-oil sector is put forward as an important strategic task which aims to reduce completely the dependence of Azerbaijan's economy on oil. The solution of this task is directly related to the improvement of the conceptual and legislative basis of entrepreneurship in the country, the continuous improvement of the business and competition environment, strengthening of the state support mechanism for entrepreneurship and it creates the suitable environment for expansion of diverisification of economy and improvement of its structure, strengthening its innovative orientation, increasing its export potential, and creating new jobs.

2. THEORETICAL FOUNDATIONS OF ENTREPRENEURSHIP

Entrepreneurship is one of the main determinants of market economy as a special type of functional activity, which allows to realize the country's economic, technological and intellectual potential fully and effectively and to strengthen the economic power of the state. A term "entreprenuer" was introduced by the French economist Rishar Cantillon for the first time in western economic literature, who lived at the beginning of the 18th century based on the views of A.Smith, J.B.Say, W.Zombart, J.Schumpeter, A.Marshall, K.Marx, J.Keynes and

others, theoretical concepts on entrepreneurship has evolved and has passed below mentioned development stages: (1)

1. Entrepreneurship activity is directing the capital in the conditions of limited economic resources by the owner of capital to different areas for gaining profit. Representatives of this approach that identifies the capitalist and entrepreneur are R.Cantillon, A.Smith, W.Rosher, J.Turgot and others.
2. Entrepreneurship is a business activity related to the organization and management of production. In this training, capitalist and entrepreneurial concepts are distinguished from one another and the entrepreneur is treated as a manager, the content of entrepreneurial activity, its economic function is identifiable with an individual entrepreneur with certain economic qualities. These qualities include the followings: stubbornness toward the goal, readiness to take responsibility in uncertain situations; not to be confused in difficult situations; to take smart risks, to be confident in the started job etc. (representatives: A.Marshall, L. Walras, A.Cole, P. Drucker, D. McLelland and others).
3. Entrepreneurship is a business activity that is connected with risk, implemented in uncertain and information lacking condition. (Representatives: R. Cantillon, J. Thünen, F.Nayt, R.Coase, L.Mizes, F.Hayek and others).
4. Entrepreneurship is a business activity which is characterized by regular innovation, organizational innovation, and creates new economic conditions at the market. (Representatives: J. Schumpeter, P.Drucker, G.Schmoller and others).
5. Entrepreneurship is an activity that includes both economic and non-economic aspects, first and foremost social aspects (changes in demography, science, education, culture, etc.). (representatives: P.Drucker, R. Ronstadt, and others) (2).

A number of researchers of the entrepreneurship phenomenon draws attention to the fact that, along with its socio-economic aspect, it has a global universal character, which is now important for the economic progress of not only highly developed countries but also less developed countries. In this regard, J.A.Lewis is exploring the key role of entrepreneurship in order to provide the necessary economic growth in the "third world" countries, where population density is high, capital and natural resources are limited. He keeps the entrepreneur in the center of market-oriented economic reforms in such countries and considers it to be the main subject of rationalization of production. According to Lewis, a businessman working in a specific environment in these countries effectively distributes limited investments in various areas of economic activity, which ultimately leads to the growth of the national economy (3).

3. CURRENT STATE OF THE NON-OIL SECTOR IN AZERBAIJAN

It shows that entrepreneurial activity, which is a concrete manifestation of the economic relationships of the market system, is a dynamic process that always has new features and development trends. Especially in the second half of the last century both the socio-economic realities of developed countries and the tendencies of many emerging economies have further aggravated the entrepreneurial practice and contributed to the emergence of new domestic business forms and modern aspects and characteristics of inter country economic relations. As a result, new features are created essentially in development of business activity that have resulted in more enrichment of classical and neoclassical theories about entrepreneurship with new scientific concepts and exercises, and scientifically justification of new socio-economic realities, and their creative application in the formation and development of young national economies. In this regard, especially in the recent times organizational and economic characterized measures have been implemented for the formation and development of the competition based entrepreneurship. Continuous measures have been realized for developing the state-entrepreneurial relations, improving the state regulation system, business environment

legislation and administrative procedures, developing entrepreneurship across the country, improving the structure of enterprises and the mechanisms of state support to the entrepreneurs in Azerbaijan. As a result of economic reforms regarding the improvement of the entrepreneurship in the past period, now the private sector has more than 80% share of the GDP, and most of the employed people in the economy are concentrated in this sector. At the current stage of economic development of our country, in order to eliminate the dependence on the oil sector, the sustainable growth of the non-oil sector and ensuring its superior share in GDP, broadening its diversification, thus the strategic goals are suggested, such as ensuring reliable insurance of shocks related to the oil prices volatility in the world market, realizing the export potential of the country until the final point and its adaptation to the production of goods and services meeting the requirements of the world market, replacing imports with local production and developing domestic market , and bringing it to the production of goods and services meeting the requirements of the world market, replacing imports with local production and development of the domestic market, improving the field and regional structure of the economy, draw attention to the importance of the development of the entrepreneurial activity, primarily small and medium enterprises (SMEs),and the necessity of defining new tasks related its character, dynamism, directions, targets and incentives, and elaborating the necessity of developing new conceptual frameworks for their implementation. This is not accidental. Although the export potential of natural resources for the Republic of Azerbaijan is an indispensable advantage and opportunity, dependence on it is equally dangerous. World experience shows that in the economic fate of wealthy countries, the positive role of natural resources ("natural forces") such as, various metal ores, mineral fuels (oil, gas, and coal) and etc. has an observable importance. At the same time, comparative analysis of economic development and progress in recent years shows that the development of the economy only on the natural resources with high export potential, leads to serious and dangerous social and economic problems - serious deformations in the structure of the economy, inequality in economic growth, dependence of the economy on world market conditions, inequality in income, etc. Therefore, the development of the non-oil sector: non-oil industry, agriculture, tourism, transport, social infrastructure, etc., which can make a significant contribution to the reduction of the country 's dependency on the export of natural resources, should be properly assessed considering the arguments and strategic objectives. For this purpose, the establishment of long-term development concepts, creation functioning and efficient economic mechanisms for its realization and establishment of economic policy regarding its implementation are of strategic importance. Analysis of actual materials shows that, as a result of the economic reforms in the non-oil sector in the country for the more rapid and competitive development than the oil sector, the potential opportunities has been increased, the new production areas has been established, the level of supply of non-oil products has been increased because of the domestic production of import-substituting products, export capacity has increased, the country's economy has been partly diversified. (Table 1) (4).

Table 1: Production of gross domestic product in oil and non-oil sectors

Indicators	**Years**				**In 2017, compared to 2014, %**
	2014	**2015**	**2016**	**2017**	
Gross Domestic Product	59014,1	54352,1	60425,2	70135,1	118,8
Oil sector	22824,9	16682,1	20449,4	26073,2	114,2
Non-oil sector	36189,2	37670,0	39975,8	44061,9	121,8

As it is seen from the table data, the growth rate of the value added in the non-oil sector in 2017 compared to 2014 was 21.8 percent, which means that it is respectively 3.0 and 7.6 percentage

points more than the GDP and oil sector figures. As a result, the share of non-oil sector in GDP increased by 1.5 percentage points, from 61.8 percent to 62.8 percent in the comparable period. In the non-oil sector of the country in 2017, 44.1 billion AZN value added was generated, which is 2.7 percent more than in 2016. The share of generated value added in the non-oil sector had 62.8 percent share in GDP. The non-oil sector has increased the generated value added in the country's economy in 2017 by 1.8 percentage points. In the non-oil sector the generated value's 9.0 percent or $ 3.95 billion, is from agriculture, forestry and fishing, 7.0% or 3.1 billion, is from non-oil industry, 15.2% or 6.7 billion AZN, is from construction, 16.6% or 7.3 billion AZN, is from maintenance of trade and transport vehicles, 10.8% or 4.7 billion AZN, is from transportation and warehousing, by 3.7% or 1.6 billion AZN, is from accommodation of tourists and public catering, 2.6 percent or 1.1 billion AZN, is from information and communication, 26 percent or 11.5 billion, is from other fields, 9.1 percent or 4.1 billion AZN, is from net taxes on production and imports. During 2017, the 49.7% or 8.33 billion AZN of the investments invested to the fixed capital in the economy was directed to the non-oil sector. The 10.8% of the investments in fixed capital and 21.7 percent or 1.8 billion AZN of investments in non-oil sector, was used for the development of the non-oil industry. During the first ten months of 2018, the volume of investments into the non-oil sector increased by 16.7%, also the invested capital's volume in the non-oil sector increased by 18.2%.

4. CONCEPTS AND DIRECTIONS OF BUSINESS DEVELOPMENT IN THE NON-OIL SECTOR

The main priorities of the economic policy aimed at eliminating dependence of the Azerbaijan located in the South Caucasus in the basin of the Caspian Sea which is rich in oil and gas, on world market prices of oil and export of hydrocarbon resources and the development of the non-oil sector, are particularly highlighted by entrepreneurship, primarily SME stimulation. This is essential for sustainable socio-economic development of the country, diversification of the economy, development of its field, territory, technological structure, opening new jobs, and increasing export potential. In order to identify the future development goals and directions of SMEs in the non-oil sector in Azerbaijan and to ensure their realization, the President of the Republic of Azerbaijan issued a Decree Number 1138 dated December 6, 2016, road maps in 11 directions, in particular, "Strategic Roadmap for the Production of Consumer Goods at Small and Medium Enterprises in the Republic of Azerbaijan" is of great importance from conceptual point of view. (5) By paying special attention to bringing business environment and regulatory framework closer to the Small and Medium Business Roadmap, providing affordable and effective access to funding resources for SMEs, internationalization of SME activities and expanding access to foreign markets, preparing skilled workforce and developing skills on SME subjects, to increase quality product and service offers in the regional markets, to encourage innovations for increasing competitiveness on the SME subjects, as well as to enhance research and development activities in the mentioned fields, has been accepted as important targets. One of the priorities of the development of SMEs in the non-oil sector of the country is to ensure its innovation-based development in the modern world, in order to not to lag behind in the development process of the world countries and to increase the efficiency and competitiveness of the economy (6, p.369). In general, systematic measures on innovation development in developed countries are one of the important directions of the state's economic policy (7). Nowadays, the economists pointing to the need to expand innovation policy in Azerbaijan indicate that in the near future, national innovation policies in our country should be developed in close cooperation and dependence on functional innovation, coherent innovation and regional innovation policies, and it is advisable to develop specific areas and industries, in other words, concepts in specific directions (Reference: (8, p.92). It should be noted that the innovation characteristic of business activity was emphasized in the studies about classical

theories of entrepreneurship by J. Schumpeter, P. Drucker and others. According to the innovation theory created by Schumpeter, the entrepreneur should have the following three important features: to be innovative, to be able to predict, and to be creative. Entrepreneurship is related to the entrepreneur's ability to create a new product, to introduce a new way to produce product, to find a new market for the product, to find a new raw material or to find a new way of creating things and organizations. As a result, entrepreneurs are the ones who develop and apply innovations for the first time. "Innovation is a change regarding the use and consumption of new consumer goods, new production and transportation means, markets and organizational forms in industry" [9]. Peter Drucker's theory of entrepreneurship points out that innovations, resources and entrepreneurial behavior are the most important elements of entrepreneurial activity. According to Drucker, entrepreneurial activity is characterized by the ability of consumers to utilize resources or to increase the value of resources for consumers, to create new values, and to combine existing resources and materials into a new product. From here, one can conclude that according to Drucker, entrepreneurs are the ones who are always looking for changes and trying to respond to changes. In addition, entrepreneurial activity is characterized by a unique combination of innovation and resources, as innovation increases resource utilization opportunities and generates abundance of resources [10]. The experience of developed countries shows that the implementation of the development of the business system in the innovation spheres can be realized only by using the potential of small and medium-sized enterprises, which are capable of attracting private capital in the innovation sphere, implementing the direction of scientific and technical developments in the most important products and technologies, capable of adopting innovations and market them in a short time. [11, p.47]. According to researchers, innovation potential of small and medium-sized businesses is a collection of material, financial, intellectual, scientific-technical and other resources necessary for innovation activities [12, p. 25]. The innovation process is generally described as the creation, the wide distribution and application of products and technologies that are distinguished for their scientific and technological innovation and provide new public needs [13, p. 32]. Innovative development involves the acquisition of modern ICTs by enterprises and companies operating in the country, the production of competitive products and the expansion of export markets [14, p. 47]. Finally, providing the innovation characteristics of the activities of the SMEs is crucial for increasing the competitiveness of small and medium-sized enterprises and strengthening their place in the international markets where the globalization process is deepening and the dynamism of the international competition is strengthening. When determining competitiveness of businesses, i.e., the advantage of the economic subject over the other local and foreign businesses, indicators are examined such as their scientific research potential, economic capabilities and efficiency of the activity, the level of management arrangement, the ability to produce and sell any product in the required timeframe and volume characterized by the production and sales potential of the entity, the image of the entity, the financial position, the entity's strategy, the specialization of the labor resources, which their level are also identified , either directly or indirectly, by the nature and level of the entity's innovation activity (15, pp.35-36). The State Program for Industrial Development in the Republic of Azerbaijan for 2015-2020 has crucial conceptual character in terms of the importance of expanding innovation activities and innovation processes of entrepreneurs' subjects, primarily the SMEs in sustainable economic development of the country. The expansion of science-intensive and innovative production in the industry, transition from natural resources exporting to the innovation model of economic growth is one of the main goals (16). Techno parks, which are intended to be created in each region of the country, are of particular importance for the expansion of innovation processes of entrepreneurship, especially SMEs. Techno parks, which are widely used in supporting innovation processes of entrepreneurship in the world, support science-intensive entities to have

strong place in local and foreign markets by transferring advanced technologies created by new knowledge and inventions to the industry through the SMEs and new product release, and they play an important role in providing innovation-oriented entrepreneurs with all kinds of assistance such as organizational, logistical, informational, consulting, financial and etc. A number of purposeful measures have been taken by the state to stimulate the development of innovation processes by addressing the important role and importance of techno parks and such innovative structures in forming innovation processes and ensuring its dynamism in the non-oil sector. Specifically, tax legislation envisages tax exemption from income tax, profit tax, value-added tax, property tax and land tax for individuals and legal entities working in the industrial and technology parks as well as managing companies and operators of parks (17). At the same time, several innovative structures have been established in several regions, including the Sumgait Chemical Industry Park, Sumgait Technology Park, Balakhani Industrial Park, Mingachevir Industrial Park, Azersun Industrial Park, Neftchala Industrial District and others. Currently, the main task in this area is the creation of the necessary legislative, organizational, and business environment for their efficient activity. The above mentioned shows that important conceptual measures have been implemented in terms of accelerating the development of SMEs and expanding their innovative activities in the non-oil sector of our country. Currently, one of the main tasks in this area is to improve the mechanism of private investment financing. In recent years, a number of development institutions have been established in the country for this goal, and one of them is the National Fund for Entrepreneurship Support. (Currently the "Entrepreneurship Development Fund"). In total, 1896.2 million AZN were allocated from the state budget to the National Fund for Entrepreneurship Support in 2006-2007. Only in 2017, the Fund provided concessional loans amounted 20.2 million AZN to 1953 entrepreneurship subjects, and 6591 new jobs were created through these loans (18). In general, SMEs have 99% of the share of the 136,000 entrepreneurs using concessional loans until now. Currently, a number of international financial and credit institutions operating on other fields of Azerbaijan such as the World Bank, the International Monetary Fund, the European Bank for Reconstruction and Development, the Islamic Development Bank and others are closely involved in the development of the business sectors. It should be noted that, after gaining independence, 13.92 billion USD loan agreement was signed during 1994-2017 in our republic. In total, 11.52 billion USD or 82.6 percent of the loans from signed loan agreements were spent. (19, p.329). Now, in this area, working out a mechanism for solving the investment problems of SMEs totally, to increase their financial sustainability, to extend access to long-term and low interest loans, to provide concessional loans, to insure loans and to develop loan collateral mechanisms by advanced international experience, and the simplification of allocation and management system of attracted credit resources are among the most important issues.

5. CONCLUSION

In recent years, number of legislative documents has been adopted for the development of entrepreneurship in the non-oil sector of Azerbaijan, its competitiveness and export potential, the state support system for entrepreneurship has been constantly expanded. As a result, competition and business environment has been improved in the country, the share and role of the private sector in the economy significantly increased. In our opinion, along with positive results, further development of small and medium-sized businesses in the non-oil sector, requires first of all the following measures to strengthen the state support to them:

1. Enhancing the innovation orientation of SMEs, for this purpose, ensuring the widest distribution of techno-parks, business incubators, consulting services and other effective organizational structures which are widely used in the world practice, creating a mechanism for the rapid monitoring and realization of promising innovation ideas and projects;

2. Finding and applying effective ways of ensuring financial sustainability of SMEs and effective and rapid solution ways of investment problems, improving existing legislation in this area in the context of modern requirements.

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UNEMPLOYMENT AND SOME ISSUES OF USE OF HUMAN CAPITAL

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ABSTRACT

To provide sustainability of economic reforms carried out in our country and transition to new economic development strategy, the president of Azerbaijan Republic approved a decree "National economy and main directions of the strategical road map for key sectors of the economy" the main target of which is to improve human capital. It is necessary to mention that human capital plays a decisive role in an increase of labour productivity, sustainable economic growth, increase in competition between manufacturing and service sectors and integration of country to global markets. To achieve this, it is required to raise quality of all levels of education, to provide constantivity of improvement of workers' skills and knowledges, to adapt the preparation of skilled personnel for market reqirements, to stimulate investment of companies on the research and development departments and to use existing human resources effectively. The article is focused on the role of the improvement of human capital and its efficient usage on the development of the society as a whole and alteration of the all aspects of social life in the provision of the sustainability of economic reforms held within the country. In this context, author tried to display the indispensible contribution of the education to the improvement of human capital by briefly analyzing the changes in the phenomenon of unemployment.

Keywords: *educational unemployment, human capital, labor force, labour productivity, reforms, sustainable development, unemployment*

1. INTRODUCTION

In order to achieve the continuity of the economic reforms within the country and to provide the transition to the new economic development strategy, the President of the Republic of Azerbaijan has confirmed the «prior directions of the strategic roadmap of national economy and main sectors of economy» in his decree No.1897 of 16 March 2016. One of the main goals mentioned here is related to the development of human capital. In this document it is mentioned, as a reference to the foregoing issue, that «human capital plays a crucial role at increasing the labour productivity, sustainable economic growth, the level of competitiveness in the sectors of production and services, and in the integration of country to the global markets. To achieve these goals it is required to increase quality in all pillars of educational system, to ensure the continuity in the enhancement of workers' knowledge and skills through trainings, to adjust the process of generation of skilled workers according to the requirements of the labour market, to stimulate the firms to invest in the sphere of research and development, to provide an efficient use of existing human capital» (Prior directions of strategic roadmap of national economy and main sectors, 2016).

2. COMMON PROBLEMS OF USING HUMAN CAPITAL

As an economic concept, human capital comprises the total sum of the skills, knowledge, habit and motives concentrated in humans, e.g. measure of the human skills that may bring profits (Fisher, C., Dornbush, R., & Shmalenzi, R; 1993, pp.123-187). Knowledge, habits and skills of the humans are transformed into the capital when they have profitability through investments and bring revenue in the shape of high salary to its owner (Sitkina, L.G.; 2000, pp.16-35).

Because human capital forms with due investments to humans and expenses on searching information about education, training of personnel in production, health care, migration, prices and incomes occupy a special place among these investments. It is important to demonstrate that loss of workers' ability to work results in devaluation of investments made on their education, production possibilities of a company decreases; balance between the continuous production and its separate parts. It is no accident that William Petty who was the first to call active living force of humans as a main wealth of the nations, considered healthy workers as valuable ones. The idea that the total sum of humans' professional qualities is income generating human capital, was also coined by him; he popularized the issue of significance and efficiency of investments on human capital and emphasized the primary role of a state as main socioeconomic institution driving the reproduction of human capital. His successor, Adam Smith, once noted that greatness and glory of a state rests largely on how populous, cultivated and industrious the nation is. He also associated the health of people with geographical factors such as environment, location and quality of the soil (Smith, A.,1962, pp.93-97). The results of the research suggest, the role of the efficient use of human capital in the progress of society has changed completely. That is why the reveal of potential opportunities (physical and mental capabilities) each person has, is one of the substantial duties of every civil society. The reason is that employment has become one of the major global problems of the world for today. According to the latest data, from up to 3.7 billion labour forces existing today in the world, more than 189 million people (4,9%) is unemployed, and up to 25-30% are people who work on incomplete business days. According to the same data, there are huge number of unemployed persons even in the most developed countries of the world. Those include USA with 8149 thousand people (4556 thousand males and 3634 thousand females), Germany with 4388 thousand people (2551 thousand males and 1836 thousand females), Japan with 3130 thousand people (1920 thousand males and 1210 thousand females), Great Britain with 1361 thousand people (788 thousand males and 573 thousand females), Italy with 4647 thousand people (2096 thousand males and 2551 thousand females), Canada with 1234 thousand people (685 thousand males and 549 thousand females), France with 2727 thousand people (1327 thousand males and 1401 thousand females), Russia with 5675 thousand people (2075 thousand males and 2699 thousand females) being unemployed. According to the statistical data of 2015, there are 8336.9 thousand unemployed persons throughout Commonwealth of Independent States. Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan and Ukraine shared, accordingly, 243.7 thousand, 243.6 thousand, 297.9 thousand, 451.1 thousand, 192.2 thousand, 62.1 thousand, 4264 thousand, 241.2 thousand and 1654 thousand of them. Certainly, due to certain objective and subjective reasons, the number of the unemployed persons registered in CIS doesn't reflect the accurate number of unemployed persons, but is deemed sufficient for the comparison of the statistics through countries (http://www.cisstat.com). Unemployment is an unconditional and inevitable economic event for market economy regardless from its reasons. One should consider, among the other reasons, the effect of globalization on unemployment. This effect impacts economy in two ways: on one hand, by the means of unequal growth of the population; on another, through the use of capital-intensive technology that requires less amount of labour in the process. As is known, economic growth is closely linked with the problems of labour market. Despite the large quantities of recently created jobs, the situation with the plausibility of labour market of our country remains very critical. Reduction of unemployment rate of the country is one of the vital factors of efficient use of human capital. To enable this, the society should impose sufficient conditions to adapt paid workers to the constantly changing conjuncture of the market and take all the necessary measures for it. For example, training of skilled workers, constant rise of investments that bring about an increased qualification in human capital, creating new jobs, provision of better conditions for legal migration, taking up measures for prevention of restrictions of workers' rights, protecting the

rights of paid persons etc.

3. UNEMPLOYMENT AND CURSORY VIEW TO ITS MAIN COMPONENTS

According to the provisions of International Labour Organization, unemployment has 3 criteria that need to be fulfilled simultaneously. According to that provision, 16 year old persons are qualified as unemployed persons if they:

1. Do not have a job;
2. Have actively looked for work;
3. Are currently available for work (ILO, 1994).

Presently, there are several theories that reflect the phenomenon of unemployment and in these concepts representatives of many schools of economics deal with the analysis of reasons causing unemployment. For instance, the first explanation of the concept is encountered in T.Malthus' work called «An Essay on the Principle of Population» (1798) in the late XVIII century. He related the causes of unemployment with demographic factors. For Malthus, unemployment happens when natural growth excels growth of production. In turn, Karl Marx undertook a research in his famous work, «Capital» (second half of XIX century), where he re-examined Malthusian theory of unemployment and explained reasons behind unemployment through accumulation of capital and cyclical development of market economy in the framework of exponential growth of organic composition of capital. He concluded that in the capitalist mode of production, consistency between the demand for labour and its growth which are accompanied by internal mechanism of capitalist production results in the excessive number of population. When looking thoroughly to the essence of the problem, it becomes evident that here excess population, in fact, arises when «…the mass of the means of production consumed by it increase, but their value compared with their mass diminishes...» reflected at the general law of capitalist accumulation which states that relative diminution of variable part of the capital. K. Marx demonstrated that «...The labouring population therefore produces, along with the accumulation of capital produced by it, the means by which it itself made relatively superfluous, is turned into a relative surplus population; and it does this to an always increasing extent. This is a law of population peculiar to the capitalist mode of production» (Marx, K.;1969). Modern economists associate unemployment with high salaries, low demand for labour force and non-flexibility of labour market. By analyzing unemployment as the inalienable attribute of market economy, most of these economists tend to point to the appearance of «transformational (variable) unemployment», in modern economics, which embodies economic stagnation due to the enduring character of reforms, low indexes of official (statistical) unemployment, low levels of social security and growing tendencies of labour migration.

4. HUMAN AS AN OBJECT OF CAPITAL INVESTMENT

It is clear that human has been an object of capital investments in each economic system while comprising the primary factor of production. Capital investment in human is as beneficial and equals to the capital investment in any other factors. According to American economists, K. McConnell and S. Brue, investing in human capital means the growth of labor productivity of worker or any human activity that increases the qualifications and competence (McConnell, C., Brue, S., & Flynn, S.; 1993). When putting money for raising the quality of labour force (human capital), first and foremost, it is important to make sure how efficient these investments are compared to the investments in any other factors of production. Because labour force, as an element of human potential**,** which is a key component of productive forces, and an object of accumulation of capital, differs from other factors of production by its value, utility and obsolescence.

Here we face yet another type of obsolescence that is not accompanied by the drop in the productive forces, but the rise in the concentration of knowledge accumulated in the labour force, increased experience and habits. We know that the productivity of the worker is rising over time. The American economist E.Dennison, who examined the importance of the level of education of employees in the sphere of material production, has evidently proved it in his research. We may acknowledge it by looking through the following table which demonstrates the results of his foregoing research (see Table 1).

Table 1: Natural Development of Unemployment in the Period of Transition (Churkayev, E. 2006, p.203)

№	Factors of production	Share of various factors (by percentage)
1	Increased labour costs	32,0
2	Rise of labour productivity, including	68,0
	Technical progress	28,0
	Capital expenditures	12,0
	Education and vocational training	10,0
	Saving from the scale of production	7,0
	Improvement of resource allocation	5,0
	Legislative and institutional changes	6,0
	Total	100,0

It becomes clear that education is the third most important factor of labour productivity. It is also interesting that the number of unemployed people holding diplomas and high levels of education in the economies of transition is growing rapidly due to 2 reasons: on one hand, from the structural changes happened in the economy; on another hand, since the economic structure is blindfoldedly transformed into the areas in which capital is likely to generate more profits. It is worthy to mention that even though economic stagnation in real sector was persistent during the period of Soviets, there was a significant progress in the field of establishment of new institutions providing higher and specialized secondary education and the developing education system paved its way for directing investments to profitable areas. However, at the same time, the failure to create efficient educational bodies systematically, and lack of academic qualifications accompanied by same major subjects taught in educational institutions did not ensure the high quality of education. It is no accident that, as a result of changes in economic system, many people in Azerbaijan, as well as in all countries of CIS, joined the ranks unemployed persons during the period of transition despite having diplomas from institutions providing higher and specialized secondary education. That is why, unsurprisingly, some economists have come up with the idea to include the new type of unemployment along with existing kinds. This type of unemployment, in academic literature of economics, is called «educated unemployment» . It occurs in the train of transition to market economy and is characterized by the following features:

1. The structure and quality of vocational education does not meet the requirements of the labor market;
2. There happens a cluster of non-employed graduates of general and vocational schools in labour market.

Since the education system is a subsystem of society, the demand for education is naturally divided into two parts: general and special (vocational) education. The former, determines the ability to live in society. The latter, in turn, is determined by the ability to earn a living wage through self-employment, hiring or entrepreneurship (Muradov, S. M., 2004).

Reforms in the sphere of employment carried out in the framework of transition to market economy have resulted in abolition of quotas for graduates in some fields. Those graduates who enter the labour market first time have remained with no social security as they lost their job guarantee. Furthermore, the system of central allocation of young employees with jobs does not exist anymore. On one hand, this may be viewed as a positive case (because young employees choose the job they want), while on another, according to the market principles, when there is a lack of vacant jobs it impedes the process of finding job for the young and, consequently, they join the ranks of unemployed people which is a negative outcome of that. In such a case, some of those young employees with technical education are being obliged to work in the commercial structures and shadow economy (informal sector). Other, strive for prestigious and high-paid jobs. We should bear in mind the fact that some employers consider this issue seriously when trying to solve the problem of increasing competitiveness through downsizing. In this case, society can, at best, order general requirements for the content of education with regard to the capacities and age of those trained by certain organizations. Certainly, organizations, entrepreneurs and individual employers who need experts can have an impact on raising the level of preparedness among potential employees while they are still in schools of higher and specialized secondary education (through the labour market mechanism). In that case, they will recruit those young cadres according to their own interests (Muradov, S. M., & Muradov, R. S; 2016). There is no doubt that younger people with higher education have the opportunity to get a job where they get higher wages. However, it seems to us that there is no much need to assume that investing in these areas in the future will be profitable, and that's not worth thinking about. Because when young people enter universities and vocational educational institutions individually, they do not know, in advance, the number of those who want to enter to one or another specialty at the same time. That is why they are not able to properly evaluate what they are going to achieve in the future by finding jobs in one or another profession (Population and Globalization, 2002). It is clear from the surveys and official statistics that in the years of independence, the number of persons unemployed, as mentioned in the state employment services, in our country was 28877 in 2015. 12113 of those unemployed are in Baku; 1499 are in Absheron; 1799 people are in Ganja-Gazakh; 803 people are in Shaki-Zagatala; 839 people are in Lankaran; 969 people are in Guba-Khachmaz; 7204 people are in Aran; 1543 are in Upper Garabagh; 1317 are in Kalbajar-Lachin; 791 of them fall to the Mountainous Shirvan economic region (SSCRA, 2007, pp. 79-81). All in all, in the years of independence, most of the difficulties in labour market were faced by socially least secured groups such as females, elderly people, young people, and graduates from higher and specialized secondary schools. Thus, the share of females, young people between 18-25, young people up to 18 and persons of pre-retirement age who received the status of unemployed was, 38.6%, 13.4%, 0.4%, 1.9-4%, respectively (Labour market, 2003, p. 136). As for the overall status of unemployed people who graduate from higher and specialized secondary schools, it can be clearly seen from Table 2 below (see Table 2). Analyzing data, it becomes straightforward that in the years 1992-2015, graduates of specialized secondary schools were making 13.4-30.7%, while graduates from institutions of general secondary education formed 15.8-41.3% and those having no secondary education constituted 1,0-7,2% of all unemployed people who received unemployed status in the state employment services of our republic. The share of those with higher education among unemployed males during the comparable time period was between 17.9-38.7%; the share of those with specialized secondary education oscillated between 18.3-42.7%; the share of those with general secondary education was 12.0-39.3%; while the specific weight of people with non-secondary education reached 1,1-4,5%; Among those unemployed females, these figures were between 9.7-23.8; 25.8-43.1; 20,6-24,9; 18.7-41.0 and 1.2-9.3%, respectively. It means that currently significant part of graduates from institutions of higher, specialized secondary and technical education in Azerbaijan Republic, as well as throughout whole CIS, are

unemployed due to the inconsistencies between professional qualification of population and the real demand for labour force in labour market.

Table 2: Persons with unemployed status by level of education in Azerbaijan Republic (at the end of the year; by percentage) (Labour market, 2016, p. 126).

Unemployed people by gender over years	Total	Including				
		Higher	Specialized secondary	Primary vocational	Secondary	Non-secondary
Total unemployed						
1992	100	16,7	34,8	-	41,3	7,2
1995	100	13,4	24,7	20,5	40,2	1,2
2000	100	27,2	33,9	-	34,2	4,7
2005	100	30,7	34,8	-	30,2	4,3
2010	100	42,8	35,5	12,8	7,6	1,3
2013	100	48,5	35,8	11,2	4,2	0,3
2015	100	55,6	33,1	8,2	2,9	0,2
Male						
1992	100	21,1	32,2	42,7	-	4,0
1995	100	17,9	23,4	18,3	39,3	1,1
2000	100	31,8	34,3	-	32,6	4,1
2005	100	38,7	31,2	-	26,0	4,1
2010	100	50,4	30,3	12,5	5,5	1,3
2013	100	56,3	29,6	11,1	2,7	0,3
2015	100	61,8	27,8	8,1	2,1	0,2
Female						
1992	100	14,1	36,4	-	40,2	9,3
1995	100	9,7	25,8	22,3	41,0	1,2
2000	100	23,8	33,5	-	37,7	5,0
2005	100	23,1	38,1	-	34,2	4,8
2010	100	33,1	42,2	13,3	10,3	1,1
2013	100	37,5	44,6	11,3	6,4	0,2
2015	100	37,5	44,6	11,3	6,4	0,2

Those people also include persons with different categories of disability, previously convicted persons and IDPs. It is also worthy to mention that the real number of unemployed people, in CIS countries, exceeds that of official statistics by state employment services as much as 2-3 times. That is largely because of the unwillingness of most of unemployed persons to get such a status due to many reasons (low pensions, delay of pension refunds, hardships with registration process, sophisticated character of changing the statuses of unemployed people). Nowadays, one of the most substantial social obligations of our country is to decrease the time needed for population of finding jobs. While the average duration of unemployment in our republic was 14.5 months in 2005, this figure increased significantly and amounted to 18.5 months in 2015, including 18.1 months for males and 18.8 months for females (see Table 2). Table 2 shows that the unemployment period is generally different for people with unemployed statuses, including males and females. The main point of concern here is that the share of unemployed among those who are unemployed between 6 months and 1 year, and over 1 year remains high among all unemployed population. So, in 1993 the share of people unemployed from 6 months to 1 year was 17.5%; In 1995 - 12.7%, in 2000 - 11.4%, in 2005 it was 21.9%, in 2015 this figure increased to 25%; The share of those who remained unemployed for more

than 1 year was 8.8; 39.7; 59.6%, 67.0%, respectively, and in 2015 it increased to 71%. The same situation as above is typical for the CIS countries as well. According to official statistical data, among people who applied for state employment services for jobs in 2015, 57% in Azerbaijan; in Armenia - 33%; in Belarus - 66%; in Kazakhstan - 82%; in Kyrgyzstan - 52%; in Moldova - 46%; in Russia - 31.2%; in Tajikistan - 25%; in Ukraine 63% were successfully employed (16). It should be noted here that, in recent years, more serious steps have been taken to reduce unemployment in the Republic of Azerbaijan compared to other CIS countries, and in the recent years of our independence (2005-2015), this process has begun giving particularly stronger impulse. As mentioned above, from October 2007 to the beginning of 2015, 496.5 thousand new workplaces were created in our country, of which 352.4 thousand, i.e. about 71%, were permanent jobs. Table 3 shows that because of measures undertaken in the country in recent years, the number of unemployed people decreased by 23.3% in 2005-2015 to 243.7 thousand from 317.8 thousand people, including decrease in the number of unemployed males by 40.6%, from 172.7 thousand to 102.6 thousand, and the number of unemployed females decreased by 26.2% to 191.1 thousand to 141.1 thousand people.

Table 3: Changes in population dynamics of economically active and economically non-active population at the age of 15 years and above (at the end of the year, thousand persons)(Child Labour in Azerbaijan, 2007, p.19).

Population statistics by gender	Economically active population		Including				Economically non-active population	
			Employed		Unemployed			
	2005 year	2015 year	2005 year	2015 year	2005 year	2015 year	2005 year	2015 year
Total	4380,1	4813,5	4062,3	4569,8	317,8	243,7	1930,6	1516,6
Male	2275,0	2492,1	2102,3	2389,5	172,7	102,6	677,0	569,0
Female	2021,3	2321,4	1830,2	2180,3	191,1	141,1	1253,6	947,6
Urban areas								
Total	2107,4	2450,1	1867,3	2301,0	240,1	149,1	1237,2	819,0
Male	1142,6	1274,1	1034,6	1209,9	108,0	64,1	432,4	352,2
Female	964,8	1176,0	832,7	1091,1	132,1	84,9	804,8	466,8
Rural areas								
Total	2188,9	2363,4	2065,2	2268,8	123,7	94,6	693,4	697,6
Male	1132,4	1218,0	1067,7	1179,6	64,7	38,4	244,6	216,8
Female	1056,5	1145,4	997,5	1089,2	59,7	56,2	488,8	480,8

Even though the share of females, in this period, among the unemployed population generally dropped from 60.1% to 57.8%, it went up from 55.0% to 56.9% in urban areas, and from 48.3% to 59% in rural areas. As one may see, it is related to the outcomes of the surveys conducted between population aging 15 years and older. There is a great difference between the population who received official status of unemployed and those who are, in fact, not employed. According to the ILO recommendations, the unemployment rate is calculated by multiplying the number of unemployed people by the number of economically active population (sum of those employed and unemployed) divided by 100. When calculating the level of unemployment based on statistical data and ILO recommendations, it becomes clear that in 2003, the unemployment rate in our republic was 1.45%, 1.3% for males and 1.6% for females; In 2005, these figures were up 1.4% at an accelerated rate; 1.3% and 1.65%, and in 2015, respectively, 5.1%; 4.1% and 6.1% respectively.

5. CONCLUSION

At present, as in the CIS as a whole, in the Republic of Azerbaijan, due to the nonconformance between the professional qualification of the population and the real demand for labour in the labour market, one part of those who completed higher and specialized secondary schools, as well as technical schools, as well as people with disabilities, previously convicted persons and refugees join the ranks of unemployed population. It should be noted here that since the number of people getting unemployed status from state employment services in the CIS does not reflect the reality, it would be better to divide the number of those employed in the economy by the number of labor resources to determine the level of unemployment in the country. According to official statistical data, the number of labor resources and persons engaged in the economy in 2003 was 4923,0 and 3972,6 thousand respectively, in 2005 - 5421,3 and 4062,3 thousand persons, in 2015 - 6335,9 and 4671,6 thousand people. In this case, in 2003, the employment rate in the country was 80.1% and the unemployment rate was 19.9%; In 2005, 75.0% and 25%, and in 2015, respectively, 73.7% and 26.3% respectively (http://www.stat.gov.az /source/labour/). It is clear from all these words that human capital currently existing in our country, including its urban and rural areas, is not fully utilized in terms of the interests of the society as a whole. Therefore, one of the major challenges is to prepare for state and governmental authorities scientifically justified suggestions based on evaluation of both unemployment and the reasons that cause it through rigorous research and analysis and to achieve to carry them out. This is a civil duty and an urgent mission of every economist of our country.

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THE EFFECTIVE MANAGEMENT WAYS OF ECONOMIC STABILITY OF ENTERPRISES

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ABSTRACT
Modern economic conditions of economic development make leadership sets of commercial enterprises to the small business sector, to go in search of new and innovative ways of their development. Often development entails not quite the expected consequences. The article addressed topical issues of effective management of small trade enterprises, as well as administrative decisions related to the competitiveness and distribution costs. The emphasis is on the importance of proper and timely development and management solutions that ensure sustainable functioning of trade enterprises in the future. It is proposed to consider the interaction of small companies with larger organizations designated probable variants of this kind of interaction. Reflected the possible background of goverment involvement in ensuring the promotion of economic stability of commercial enterprises.
Keywords: *economic stabilization, enterpreneurship, management, management solutions*

1. INTRODUCTION

In the last decade the economic condition of the majority of the enterprises is characterized by steady positive dynamics production and socio-economic indexes that creates prerequisites for ensuring food security of Azerbaijan. Most often problems of agricultural production are explained by adverse external conditions. Practice shows that 10% of trade enterprises in many regions of the country in a similar situation work steadily, quite often in the self-financing mode due to effective management of internal reserves of production. Optimum and effective use of resources in system of realization of economic targets is not less important for economic stability of production of the agro enterprises. Methods of ensuring economic stability of economic entities (through influence first of all of internal factors), a technique of its assessment demand further completion (on the basis of its separate components). Thus it is necessary to take into account to communication between operational and financial performance, and also extent of influence of each of them. Defining the mechanism of formation of economic stability of economic entities, it is necessary to consider a state and interaction of its various elements causing activity of trade enterprise. Differentiation of external and internal economic stability gives the chance to allocate organizational and economic making the mechanism of management (Form, 1998). In the conditions of market economy each agro enterprise independently realizes the principle of security with resources, is responsible for the actions and results (an organizational component). The complete characteristic of economic stability demands an assessment of financial, production and technological stability (an economic component). Elements of management of economic stability can act as making strategic and tactical management when performing functions of planning, the organization, motivation, control, the account, analysis and regulation of activity of the enterprise.

2. CHAPTER 1

In a general view, making a start from the majority of opinions, economic stability can be defined, how ensuring profitable activity of trade enterprise, due to increase of showiness of business management and use of its resources.

Today, in our opinion, there is no accurately designated and uniform mechanism which would provide to the enterprise effective tracking of own perspective development on the basis of adoption of reasonable administrative decisions. Complexity of the designated question consists not only in number of the elements forming it but also in specifics of interaction of each element with environment. Using elements of the factorial analysis it is possible to speak about some set of exogenous factors which, eventually, define the future of development of system of the organization; thus you shouldn't forget that each organization depends on those specifics of activity which she is engaged. Speaking about specifics of activity of the organizations of special attention business firms deserve, it, first of all, is caused not so much by a branch component, how many a demand as the absolute statistical majority of the existing enterprises or are trade, or anyway market result of the activity, whether regardless of that it is material (a production product), or non-material (services). Economic stability of trade enterprise can be defined including through competitiveness which can be expressed in absolute value as the relation of quality of the main business process to costs of its implementation. According to Alekseev K.V. opinion., there is such concept as "competitive advantage of the enterprise». This state which assumes steady position of the enterprise at which requirements and economic resources for current and mainly strategic completely at the expense of own means (Nedosekin, 2008). The competition as economic category - concept rather multiple-valued. It is impossible to characterize it any universal concept. In confirmation of these words, it is necessary to give some definitions of various researchers. The competition is both a way of managing, and such form of existence of the capital at which one individual capital competes to another. The competition - rivalry, competition between the producers acting in the market for the most favorable conditions of production and sale of goods for receiving on this basis of the greatest possible profit. At the same time the competition is a mechanism of regulation of proportions of a social production. Being Attribute of the market, the competition arises in the natural way from the market and at the same time serves as an indispensable condition of its existence and development (Albekov and Kushnarev, 2016). Adam Smith connected the competition with honest, without arrangement by the rivalry which is conducted between sellers (or buyers) for the most favorable terms of sale of goods. <The competition is aspiration as it is possible will satisfy to criteria to accesses to the rare benefits> better, - the American economist P. Hayne considers (Doroshenko, 2013). In a case when it is necessary to come to quantitative expression of quality of activity it is possible to use an indicator of commodity turnover of the organization for a certain period as commodity turnover is quantitative expression of a consumer response to set of the administrative decisions which are carried out by the management in the field of purchases and sale.

3. CHAPTER 2

Commodity turnover of trade enterprise is understood as the sum of sale of consumer goods to them for a certain period of time. Commodity turnover in system of indicators of development of trade enterprise plays rather ambiguous role. It expresses that, at the same time being the main estimating indicator of volume of activity of trade enterprise, it serves as the defining indicator of formation of expenses of resources and resource potential. As notes I.A. Blanc, at the same time, in the conditions of market economy, commodity turnover has the subordinated character in relation to profit of the enterprise from trade activity (Alekseev, 2005). However, for this purpose that to speak about stability of position of the organization it is necessary to support this indicator within the norm established concrete the organizations taking into account individual conditions. As one of basic values for definition of norm of this sort the level of sales volume, optimum for the company, which represents such quantity of the realized inventory items at which the level of cumulative expenses of their address doesn't exceed the maximum value of the revenue received from their realization can act.

Along with a popular belief in toughening of modern environmental conditions, there is an opinion what only with a stable growth of sales volume it is possible to reach a certain level of development of trade enterprise, but whether so it actually? Growth of sales volumes inevitably involves growth of changes of expenses which about the turn demand additional financial investments which are capable to create a gap in economic stability of the enterprise sooner or later (Liquor, 1993). In circulation of resources financial means which decrease are subject to the sharpest fluctuations deprives the enterprise of potential of investment influence and leads to its degradation. System crisis of the enterprises undermines their reproduction process as derivation of already poor money on service of economic activity and repayment of accounts payable imposes restrictions on modernization of the located funds. With increase of intensity of negative dynamics they remain without necessary financing that holds down development of the enterprises (Chuprv, 2007). Thus, it is possible to draw a conclusion that one of the most effective measures providing stability of functioning of the enterprise can lie in the plane a solution of the problem of optimization of level of commodity turnover of trade enterprise. The aspiration of the enterprise to growth can have a negative shade in the conditions of extreme degree of uncertainty of environmental conditions, however the problem can proceed and from within. The aspiration in itself to leadership in the market and to search of opportunities of expansion of coverage of influence can lead to inevitable crash more often, than it can seem at first sight. In trade branches the enterprises relating to a segment of small business which are considered the most subject to different crises. As it is noted, small business plays rather important role in formation stable market structures.

4. CHAPTER 3

Small business provides workplaces, thereby reduces unemployment rate, increases the competition, i.e. In other words carries out a number of the major social and economic tasks. Annually thousands of enterprises for all Russia appear and disappear, however it doesn't cause serious concern as doesn't lead to negative reactions of mass character as, for example, bankruptcy of the city-forming enterprise. This fact, nevertheless, doesn't beg importance of development of approaches to effective management of the such enterprises taking into account from specifics. Adoption of the administrative solution of the control of intensive growth of the main indicators of activity of the enterprise lying in the plane, demands high extent of understanding by the manager of those consequences to which the administrative mistake such can lead. In our opinion, the majority of the organizations experience difficulties with economic stability not thanks to environment at all, and owing to a chain of errors of internal character. As the most often found mistakes the following can be allocated:

- a lack of profile education at the person making the administrative decision;
- aspiration to maximize personal result, despite of consequences;
- lack of accurately formulated strategy of development of trade enterprise;
- inefficient credit policy;
- individual tendency of the manager to give preference to the analysis of especially external conditions of activity.

In most cases in practice it is observed that adoption of the administrative decision at trade enterprise, it is possible to characterize as reaction to any flowing influences or requirements. At the specified approach trade not in forces considerable increase of certain contradictions between own interests and changes happening in an external environment will be timely to provide the enterprises (for example, change of preferences of consumers, changes in pricing area, etc.). The reality shows that the anticipation is higher than the specified contradictions, and opportunity to predict managing directors of a measure, necessary for the enterprise, it is possible, for example, when using the technique of the rating assessment which is concerning

a condition of trade enterprise, and based on the most important factors of economic activity. In the conditions of uncertainty in order that the enterprise remained economically steady, it is necessary to operate on borders between a disorder and stability, based on actions for development and decision-making in the field of management. For more effective functioning and steady situation, it is necessary to focus attention to mastering new techniques, and increase of own skills in the field of adoption of administrative decisions. The refore the enterprise will be able to estimate adequately the situation in the circumstances and to define the main directions of the solution of problematic issues which finally will be able to yield positive result. The decision formulated tasks can't be unambiguous, in view of complexity of a question and impossibility and comprehensive influence on this sector of economy, however the solution can be certainly found. For example, regarding mutually advantageous partnership of small enterprise with larger or within the state influence on developments of a segment of small business in case the state assumes a role of the accelerator of enterprise activity and the stabilizer of economy (Form, 1998). We will consider option of cooperation of small trade enterprise with larger. According to Vilensky A.V., the future of the Russian business including small business, directly is defined by opportunities of formation of close cooperation connections of the small and large enterprises. In this a case it is favorable to large manufacturing enterprise or network trade retailer to form communications with small enterprises of trade as steady network of this sort of the organizations will be pledge of successful marketing activity as providing a network of independent small enterprises necessary the range of goods will act as the guarantor of implementation of the plan for marketing activity and therefore pledge of achievement of planned indicators of profit. The small enterprise will be able to receive with guarantee goods of rather high quality with a guarantee of delivery precisely in the stipulated time that will also be a guarantee of stability of activity. In process interaction the large enterprise can stipulate volumes of deliveries for each participating enterprise, formulate rules of deliveries and service, to help with determination of optimum volume of deliveries proceeding from individual opportunities of small enterprise, to help ensuring its effective integration into regional market space. As an element of the practical proof of efficiency of measures such, it is possible to provide the School of Trade project which is organized and actively JSC METRO Cash and KERRI takes root in all territory of Russia. The company helps small trade enterprises to make business processes by more profitable, however, isn't engaged in strategic planning of activity of small enterprises and doesn't conduct consultation on questions of improvement of the purchasing sold activity of the enterprises or optimization of distribution costs. Further, through interaction of this sort it is possible to stabilize activity and to increase chances of long and economically stable existence for a set of the small enterprises functioning in the sphere of trade. But there is also other point of view. It consists in negative dependence of the enterprises from each other. The enterprise has to be independent an economic entity of economy. The classical enterprise - internally uniform and operated complete organization which is carrying out transformation of a resource to a product. In reality the independent independent enterprises very seldom meet. The supporter of this position Kleyner G. claims that the real enterprises in Russia aren't present more because small enterprises are "personal plots" of the directors or owners. The medium-sized and large enterprises lost property of concentrates of resources and turned into the amorphous structures consisting of a great number of the small legal entities who distributed among themselves financial, material and material, information and administrative streams. However, in our opinion, only the mutually advantageous partnership can become the factor defining economic stability. Interaction of small business with government institutions can be other option capable to stabilize and define activity of the enterprises in the field of commerce. In particular within realization of government purchases (Bukholkov, 2013).

5. CONCLUSION

Logistic transformation of regional system of government procurements is focused on realization of innovative potential of participants of government purchases, ensuring start of the mechanism of support of the enterprises of small and medium business, optimization of a trajectory of the movement of economic streams, reduction of time of a cycle of purchases, rationalization of joint costs of merchandising, increase access of small and medium business to participation in deliveries for the state needs, to allow not support this segment of the market, but will significantly increase competition level among its participants. Such interaction will regulate purchasing and marketing activity of the organizations of small business operating in the sphere of trade, helping to reach definiteness in activity that will render inevitable assistance to their economic stability (Guzhina, 2009). As the proof the changes made to the law "About contract system in the sphere of purchases of goods, works, services for ensuring the state and municipal needs" in the current year which concern still bigger transparency of interaction of the state and private business serve. Thus, ensuring economic stability of the enterprises process which is hardly possible for mastering to the enterprise in case it is considered as the closed system. Despite a huge number of internal tasks which inevitably face, accepting the administrative decision, productivity of activity in the long term in many respects depends on as far as it is possible to establish relations with external partners, to establish an effective exchange of knowledge, including in the field of innovations, to raise definiteness degree in the field of purchases and sale, as a result to reach optimization of level of expenses and to provide economic stability of the enterprise (Lapusta, 1998). The solution of the problems connected with business growth practically blindly, irrespectively real economic opportunities and the analysis of prospects, is possible only a case of finding of ways of effective interaction with the external partner.

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ECONOMIC VALUE OF CO-PAYMENTS IN HEALTHCARE

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ABSTRACT
The co-payment system has to overcome a variety of specific problems due to the nature of healthcare needs and the structure of the healthcare system. Cost sharing in health care cannot be considered as a unique positive mechanism, and especially as an alternative source of financing. Their inclusion requires detailly design state politics of group risk protection and the search for rational and most acceptable forms of co-payments.
Keywords*: co-insurance, co-payments in health care, cost sharing in health care, patient fees*

1. INTRODUCTION

Inspite of the numerous attempts, it was not possible to reduce the growth of healthcare spending in different countries of the world. In contrast, costs are constantly rising. This is due to various factors: ageing of the population, early diagnosis of chronic diseases and their lifelong expensive treatment, the introduction of innovative technologies and medicines, etc. In addition, it has been revealed that in some cases the healthcare system itself and its funding model provoke the cost increase. For instance, payment mechanisms for healthcare workers are a fee-based method that creates "moral temptation" and "demand triggered by supply." The other side of the coin is the possibility of free of usage of medical facilities provided by the national healthcare system or by private organizations that are free at the time of receipt, causes excessive consumption. Thereby, on the one hand, all countries are trying to provide majority of the population with services, on the other hand, patients can apply for medical services over and over again, not having indication for it. This applies to the national healthcare system on the basis of both insurance premiums and taxes. The same problem can be faced in private insurance organizations where the patient pays for service long before receiving it. The system of patient participation in the payment of medical services was introduced especilly to reduce unreasonable complaints.

2. COST-EFFECTIVENESS OF CO-PAYMENTS AND CO-PAYMENT POLICIES

2.1. Economic and social efficiency of co-payments

Co-payments occur in the following forms:

- co-payments of insurance premiums, implying a contribution paid by the employee in addition to the employer's contribution (co-insurance);
- co-payments of citizens that are paid while receiving medical care (in the form of a solid fee or payment for each service);
- Excess - subtracting a certain amount from all insurance payments;
- balance billing - an additional fee charged by the supplier in excess of what he receives from the third-party payer

It is worth mentioning that co-payments in healthcare are one of the most solidary and fair methods of attracting private funds after private insurance. In developing countries, informal payments are practiced, and also the level of direct payments at the time of the appeal is high. But in the case of developed countries, there is a national system that covers almost the entire population, informal payments are not widespread, and direct private services are considered as one of the most unfair and inefficient sources of financing, and co-payments with voluntary

health insurance (VHI) are basic forms of private payments in this group of countries. Initially it was considered that charging user fees would reduce the demand for unnecessary services and become additional income that can be used to expand the supply of medical services. The degree of successful solution of these two problems is determined by the degree of elasticity of demand. From a logical point of view, a decrease in demand makes it impossible to increase income. That is, if the increase in user fees reduces the intensity of medical services usage, it cannot increase total revenue. The income increase argument is based on the assumption that the demand for medical services is not elastic: if the prices for users are maintained at the proper level, the intensity of use of services will not decrease so much to neutralize the increase in income arising from the increase in user fees. However, is the co-payment policy effective from an economic point of view? Thereby, the economic analysis of CEPOS in Denmark estimated that the introduction of a co-payment of 127 DKK (17 euros) for visiting a doctor for every citizen over 16 years old with an annual limit of 1,712 DKK (230 euros) would save 2.3 billion DKK (€ 310 million), subject to lower demand by 10% [1]. However, considering partial participation in expenditures as an additional source of financing and as a mechanism to reduce the demand for medical services, it is also necessary to determine its impact on total health expenditures. It has been established that a decrease in the usage of medical services leads to the development of diseases, which are even more expensive to treat, or if an increase in payment pushes people to the wrong structure of using medical care, which can even exacerbate the situation. This is reflected in the Lexchin and Grootendorst review [2]. The cost-saving co-payments can be restrained by health care providers interested in the incentives that their patients have. So, in response to partial participation in the expences of drugs, in some countries doctors increased the number of drugs prescribed in prescriptions. It is also possible to artificially stimulate the medical services usage by physicians of the category of patients that is not affected by co-payments [3, p. 41]. But when it comes to health, pursued policy criterion cannot be only savings. Therefore, numerous studies conducted in this direction. The first research in the realm of evaluating the cost-sharing effectiveness is the study on the subject that was conducted from 1974 to 1977 by RAND corporation. The results of the RAND experiment showed that the intensity of medical services usage (measured by parameters such as the probability of apply for medical care, stationary treatment, admission of patients, ambulatory visits) decreases as the population surcharge increases.However, the fact of reduced use of services by a number of indicators (such as admission to hospitals, antibiotics, primary care) suggests that cost sharing reduces the intensity of use of both effective and ineffective - or unsuitable - procedures. Moreover, cost sharing is also associated with worse results in terms of the overall health situation of the population according to a number of indicators. The results of the experiment give rise to serious doubts about the impact of cost sharing on macroefficiency (as opposed to microeconomic cost containment) [4, p. 182]. Later studies by analyzing relevant literature published between January 1990 and December 2011 emphasized that the vast majority of studies showed that co-payments reduced the number of services required, including the number of visits to general practitioners and the use of prophylactic services [5]. A decrease was also noted with the use of pharmaceutical preparations, even when co-payment is small [6]. At the same time, payments for drugs reduced the use of both necessary and unnecessary drugs, since information asymmetry does not allow people to make the right choice [7]. It should not be forgotten that in addition to these costs, many people face additional direct and indirect costs: re-consultation, which also requires additional payments, loss of income during treatment, or additional costs for childcare. Even a minor problem of parking, also represents a barrier for people to access medical care. Thereby, a survey of people, implying an answer to the question “Did parking expenses influenced their overall health care costs?” revealed the following. 23% missed an appointment with the doctor, while 9% left without medication because of payment for parking, 10% changed the doctor or hospital, 71%

saved on other household items to afford parking [8, p. 23-27]. There are a large number of studies about equity in obtaining medical care while cost sharing. It has been established that although the introduction of co-payments hinders the use of medical services in all the criteria of the population, it has a much stronger effect on the poor. Fixed co-payments make up a large part of the income of people with lower incomes than the wealthy. So they tend to be less fair than other forms of state financing of healthcare and consequently, reduce the overall equity of the country's healthcare system [8, p. ten]. It was established by Pulson that co-payments can lead to increased inequality. A research based on the 2009 EU SILC survey found that there is a link between surcharge and unmet health needs. 24.9% of participants indicated financial reasons as the main factors for their unmet medical needs, which put them at risk of poor health in the long run and create inequality [9]. Due to the nature of the health needs and the structure of the health care system, the co-payment system will have to overcome a number of specific problems.

- Uneven demand for population. At the same time talking about the average for a particular person is somewhat incorrect.
- Unpredictability. The loss of human health is not controlled. This hinders the budget for possible health care costs.
- Financial burden on the poor and dejected burden of the disease. The introduction of co-payments leads to a situation where healthy and rich people will pay much less for their health than the sick and the poor.
- Uneven demand for life: health needs vary greatly throughout life. People tend to use the medical care when they are very young, very old and (for women) during pregnancy and childbirth.

2.2. Co-payment policies

The policy on introducing co-payments includes the following directions.

2.2.1. Mechanisms to protect the financial interests of citizens or households

To protect the more vulnerable population in most countries, the elderly, people with certain chronic diseases, and low-income families are fully or partially exempted from co-payments. In Japan, people who were completely exempted from co-payments made up 1.7% of the total population in 2014 [10]. Such policies may protect vulnerable groups from costs associated with illness and disability (for example, in the mid-1990s in the UK, 84% of pharmaceutical prescriptions were written to those eligible for exemption from expenses), but it inevitably complicates the management of the cost-sharing scheme and increases administrative costs. However, most people in relative or absolute poverty did not receive social security: some did not meet the eligibility criteria; however, many others did not decide to get it because of social stigma or feelings of shame [11, p. 39]. Another mechanism is a reimbursement system for medical payments that exceed the established monthly limit. For example, in Japan, since 2015, patients should not pay more than 57,600 yen (about $ 550) per month from their own pockets if their household income is below 3.7 million yen (about $ 35,500) [10].

2.2.2. Choosing the right priorities in determining the services in relation to which co-payments are introduced

Comparative analysis for different countries leads to the following results. The main area of cost sharing is medicines and dental services. In the case of medicines intended for the treatment of life-threatening diseases or having a particularly strong therapeutic effect, the user share is usually less high than in the case of medicines with less effect on the patient's quality of life. Thereby, the result of a special and inconsistent approach to co-payments is that some people receive almost all of their medical care for free, while others, who may have more serious or

longer cases, face serious costs for their treatment. For instance, someone has an operation which is fully paid, and another has a genetic disease but should pay a co-payment, and he will be ill and treated for life. This leads to an unfair distribution of health resources [8, p 6)]. However, user payments can facilitate access to a doctor during off-hours or by appointment. Although it should be mentioned that in different countries patient participation is set differently: the rate of co-insurance in Germany ranges from 5 to 10 percent, while in France from 30 to 40 percent. In Japan, which is known worldwide for its universal coverage of health services, which has long provided equitable access to healthcare for all patients under the age of 70, they have to pay 30% of the total cost of medical care - regardless of their income - as a co-payment each time they see a primary care doctor [12]. The same surcharge applies to ambulatory and stationary care, prescriptions, diagnostic tests and surgery. According to some authors, joint participation of citizens implies the introduction of additional payments for the entire array of medical care, as well as the establishment of limits for co-payments for a number of patients (chronic patients, cases with long-term illness).

2.2.3. The choice of co-payments type

So, co-insurance creates more incentives to reduce the use of medical services, but, along with this, it carries a greater degree of financial risk, because the patient initially does not know the cost of the treatment, and, accordingly, the part that he has to pay. At the same time, insurance premium co-payments better ensure the principle of social justice, since both sick and healthy people participate in the process. On the other hand, deductible franchises lose in terms of equality, because create real problems for the treatment of low-income, and, as a rule, potentially sick categories of the population. It should also not be forgotten that the introduction of a system of co-payments can be accompanied by huge administrative information, economic, political and time costs. In order for user fees to be effective, you need to ensure that the cost of charging fees is lower than the additional income.

2.2.4. Optimal economic efficiency

Thereby, in 1999, the Netherlands abandoned the cost-sharing system introduced in 1997 due to the high administrative costs associated with the implementation of the new policy [13]. Another example of unsuccessful policy is the Czech Republic, where the introduction of co-payments of insurance in the absence of incentives to contain costs for both the provider and the patient led to the opposite result and doubled the cost of health care during the first two years of health insurance [14, p. 1872].

2.2.5. Many researchers believe that for a normal perception, the policy on the introduction of co-payments should be consistent with all subjects

It should prepare them for this step, work out the necessary priorities. For instance, a survey, a research conducted in Poland, revealed unreadiness to introduce co-payments, despite a general dissatisfaction with the quality and availability of medical services. Moreover, young people in good health, who live in big cities, have higher education and define their financial situation as good, spoke in favor of participation. However, loyalty was revealed in relation to some services that were considered possible on co-payment terms: payment for a family doctor or specialist home visit, surgical procedures and complex tests conducted during hospital stay (including computed tomography, magnetic resonance imaging) [15]. A research in Denmark regarding the introduction of co-payments to a family doctor's appointment identified four participants who are important for potential implementation. The Danish Parliament was in favor of the introduction and has great power. The general population and general practitioners have a negative attitude towards co-payments, while the Danish media mainly publish negative

stories about them. Thereby, the result of the research was that the introduction of co-payments for this service is not entirely desirable, although close countries actively practice it [16].

A special place is occupied by doctors of primary healthcare. They may be the first to notice that the patient's financial burden prevents them from receiving the necessary medical care. Thus, the prospects of primary health care physicians and attitudes towards the care of low-income patients play an crucial role in alleviating inequalities in the use of medical services related to economic status [11, p. 39]. A study conducted by Inoue Kachi in particularly disadvantaged areas in Tokyo, revealed that about 90% of the interviewed doctors had experience of observing patients with a financial burden; they have made efforts to meet the expectations of patients, somehow reducing this burden in relation to the medical care they provided [17]. At the same time, most of the participants stated that they are trying to reduce the burden on patients by making the consultation interval longer and choosing cheaper medications [11]. However, about 62% of participants agreed that it is necessary to reduce out-of-pocket payments for low-income patients. Respondents recognized the relationship between financial burden and patient behavior, as well as the importance of ensuring equal access to healthcare. The second group (21%) did not agree with the need to reduce payments from one's own pocket. These doctors believed that all patients should have an equal burden when receiving medical care, and that lowering payments for low-income patients would lead to inequalities regarding this burden. They also suggested that co-payments motivate patients to become more responsible for their physical condition and improve their lifestyle, for example, when smoking and drinking alcohol, especially among people with low incomes. Some doctors believed that there was no need or merit in reducing surcharges: they noted that various measures already exist to alleviate the financial burden for patients with intractable diseases and that the use of existing measures was sufficient; the introduction of new measures was unnecessary. The third group of participants (17%) believe that the adoption of legislation to reduce fees for low-income patients will cause a number of problems. First of all, these doctors were concerned that any alleviation measures for low-income patients would be impractical due to the tight financial resources of the Japanese government; doctors believed that such measures would lead to financial strain and dilemma in the treatment of such patients. Doctors in this group have proposed alternative measures, such as limiting co-payments in relation to specific diseases and costly forms of treatment. For instance, expensive diabetes medications, including insulin, will be particularly problematic in the event of inadequate access. The potential risk of overuse of medical care was another problem: some doctors believed that in all cases free help should be avoided; they mentioned the current issue of over-utilization of medical services by social protection patients who receive free assistance [11, p. 41]. Thereby, in the decision on the need to reduce co-payments for vulnerable groups of the population, about 40% of doctors were against it.

3. RESULTS

1. Co-payments in developed countries are used not so much to attract additional funds, but to rationalize the funds used, as well as to reduce cases of unfair treatment
2. The introduction of co-payments leads to a decrease in the intensity of medical services usage. At the same time, there is a decrease in demand, both for unnecessary and necessary services, and reduces access to medical services, especially in risk groups. Particularly depressing is the fact that it concerns primary and prophylactic care. All these facts adversely affects the health of the population. In addition, we are faced with a dilemma: on the one hand, co-payments are introduced for the working population. On the other hand, those people who have a job spend less time on treatment, moreover, less abuse of treatment

3. User charges should not be considered as an alternative source of funding along with taxation and social insurance, because the share of health care revenues attributable to co-payments rarely amounts to 20% of the total income. At the same time, we should not forget about the huge administrative and temporary costs.
4. Considering co-payments as an additional source of financing and as a mechanism to reduce the demand for medical services, it also should be considered that cost sharing may also lead to actually increase the cost of medical care in general.
5. Cost sharing contributes to the violation of the principle of social justice and serious financial problems. A situation arises when those who need treatment and support pay more for their health. Moreover, the same service makes up a different share according to the income, which exacerbates inequality.
6. The financial participation of patients makes them more prudent in their health and actions of doctors.
7. Therefore, introducing cost-sharing requires a seriously developed government policy that requires balancing co-payments between individuals with different financial levels and health needs, which includes: mechanisms to protect the financial interests of citizens or households, choosing the right priorities in determining services with a partial payment, choosing the right form of co-payments, involving all actors and taking their opinions into account in the development of public policy, and also the features of co-payments related to the nature of the needs and structure of the health care system.

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OPTIMIZATION OF QUALITY MANAGEMENT OF CARGO TRANSPORTATION

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ABSTRACT

The method of calculation of basic parameters of cargo transportation has been analyzed. An optimal model of quality management has been developed. An equation of full economic costs has been formed for the logistics chain. The possibilities of carrying out optimal management of cargo transportation have been studied. It was determined that optimization parameters such as the capacity of the warehouse, the transport capacity of the vehicle, the efficiency of lifting vehicles can be taken. The main parameter of the logistics chain is justification for the minimization of the cost of economic integration costs. The issue of improving the production structure of transport enterprises has been solved to optimize quality management. It has been shown that the range of technical means that provide freight traffic is dynamic interacting and has a certain hierarchical structure. The system approach has confirmed that the system has an invariant structure. It has been established that optimization of the logistics chain must first be achieved by optimizing its structure, ie proportional development of its elements, rational union, and perfect harmonization of key parameters. It has been established that the multidimensionality and diversity of indicators and parameters characterizing the work of technical facilities make it difficult to select effective methods and tools for their calculation. It has been shown that the methodological basis of the optimization of the quality of transportations can be generated by the use of production power, which is an integral indicator of the potential for load capacity over a single period of time.

Keywords*: economic cost, logistics, management, quality, transportation*

1. INTRODUCTION

Resulting from the socio-economic needs of modern society organic integration of transport with production and consumption has led to the conversion of transport into a indivisible unit of the integrated "production-transport-distribution" system {1}. In the open market and the decentralized management of production, transportation and distribution of goods, this system consists of a set of horizontally interconnected objects {2}. From this point of view, the object of optimization is a combination of all technical means involved in the delivery process of cargoes and realizing the objectives of logistics on the basis of relevant technological processes and operations. Investigate the simplest logistics chain. Let's propose that the gravel is delivered from the production site to the consumer point. The commodity producer is Khanbulakchay gravel plant, the consumer of the product (cargo) Akkord OJSC. The amount of gravel ordered to be delivered within 100 days is 5,000 tons. First of all, characterize the requirements for safe delivery, protection and storage of material flow and cargo. The crushed stone belongs to bulk cargoes, transported by open vehicles and stored in open warehouses. There is no need for additional measures to exclude damage of cargo during its loading to vessels, wagons and cars. We suppose the hourly productivity is 70t per hour for loading and 58t per hour for unloading. Let’s characterize the technology of gravel transportation and the route of movement from the production site to the consumer site. Let's assume that the gravel plant has a railroad on a freight yard. The first operation here is the loading of the crushed stone from the consumer's open warehouse to wagons with the help of a conveyor belt. Let's say that the railcars full of gravel are transported by rail to Lankaran station and further to the existing railway line. The gravel is unloaded at the open warehouse in the port.

Gravel is stored in the warehouse until the ships are loaded. The gravel is loaded to ships and shipped to Baku. Let us suppose that the length of the waterway is 413 km. A gravel is emptied by floating crane to an open warehouse in Baku Alat Sea Port. The gravel is transported to the consumer's warehouse by dump trucks.

2. CHAPTER 1

The required logistic operations, tools and their parameters are presented in Table 1.

Table 1: Required logistics operations, tools and their parameters

Operations	Tools	Parameters
Storage at the production site	Open storehouse	Capacity, t
Loading	Conveyor transporter	Loading capacity, t
Railway transportation	Flatcar	Productivity, t/hour
Unloading at the port's warehouse	Greifer harbor crane	Productivity, t/hour
Storage at the port's warehouse	Open warehouse	Capacity, t
Loading to ships	Greifer harbor crane	Productivity, t/hour
Railway transportation	Dry cargo ship	Loading capacity, t
Unloading	Greifer floating crane	Productivity, t/hour
Storage	Open warehouse	Capacity, t
Loading to dump truck	Excavator crane	Productivity, t/hour
Transportation by truck	Dump truck	Loading capacity, t

Thus, delivery of crushed stone consists of four operations: storage, loading, transportation and unloading {3}. The following equipment is used to carry out these operations: open warehouse, conveyor transporter, harbor crane, floating crane, excavator crane, flat railcar, dry cargo tanks, dump truck. The following optimization parameters could be taken: the capacity of the warehouse, the loading capacity of the vehicles (railcar, ship, truck, etc.), the productivity (or loading capacity) of lifting vehicles and so on.

3. CHAPTER 2

Basic methods of parameters' calculation. All economic costs or integrated costs can be taken as the key parameters of the logistics chain (load capacity Q, t, productivity P, t/hr, capacity E,t) optimization criteria. Integral costs Z - both current costs E and unused capabilities of the specific capital. Integrated costs are as follows:

$$Z = E + k\rho/100 \ , \qquad (1)$$

Where K - the equity used, man;
ρ - average rate of return of capital,%.

Specific economic expenses of a single transport product Z can be found as follows:

$$Z = S + k\rho/100 \ , \qquad (2)$$

where S is the cost of transport product, man / ton (man / tkm);
K - special capital ratio of transport product falling on special capital, man / ton (man / tkm).

Let's formulate the equation of full economic costs for the logistics chain described above:

$$Z = Z_1 + Z_2 + Z_3 + Z_4,$$

here, - full economic costs in the transportation, loading, unloading and storage operations, respectively.

It should be noted that the parameters of the automobile and railway transport technics are determined by the type of load. However, we have to look at the full economic costs of transporting cargoes on the railroad. In this case, we can define the integral costs of shipping a G ship with a ship:

$$\begin{aligned} Z &= Z_{don} \cdot t_d + Z_{yük} \cdot t_{yük} + Z_{boş} \cdot t_{boş} + Z_{sax} \cdot t_{sax} \\ &= Z_q \cdot t_q + Z_d \cdot t_d + Z_i \cdot t_i + Z_{b.d.} \cdot t_{b.d.} + Z_{sax} \cdot t_{sax.} \end{aligned}, \qquad (3)$$

where - $Z_{don}, Z_{yük}, Z_{boş}, Z_{sax}$ economic costs, man/hour, in transportation, loading, unloading and storage accordingly;

Z_q, Z_{bd} - economic expenses, man / hour, during departure and leisure according to the fleet;

Z_i, Z_{bd} - economic expenses, man / hour, for keeping the mechanisms in operation and during idle time;

t_d, t_u, t_b, t_{sax} transportation, loading, unloading and storage period, hours;

t_i, t_{bd} - the time during which the mechanisms for the handling of a ship's (one train) burden are at work and vacancy.

We can write based on obvious dependencies without having detailed technical and technological operations:

$$\begin{aligned} t_q &= l/U, \\ t_i &= t_d = G/P, \\ t_{bd} &= 24G/G_{gün} - G/P, \\ t_{sax} &= 24G/G_{gün}. \end{aligned}$$

The latter seems to be that the logging operation, such as the load storage parameters, is tightly closed with the load parameter $Q = G/P$, ie the capacity of the warehouse is $E = f(Q)$ and can be removed from the range of the inputs. Then this equation looks as follows:

$$\begin{aligned} Z &= Z_q l/U + (Z_d + Z_i)\sum G/P + Z_d \sum \\ &(24G/G_{gün} - G/P) + Z_{sax} \cdot 24G/P \end{aligned}, \qquad (4)$$

Here, l - length of sea transportation route, km;
U - speed of the vessel, km / h;
P - productivity of cargo works, t / h;

$G_{gün} = G_y / t_{i.d.}$ daily load input, t / hr; here $t_{id} - G_y$ is the business cycle of the fleet to deliver a thousand tons of cargo, hours.
For similar calculations, the speed of the ship (train) can be expressed by the following empirical dependence:

$$U = a \cdot Q^b \qquad (5)$$

It is logical to assume that mechanization costs may be proportionate to the productivity of those vehicles,

$$Z_i = Z_i \cdot P, \quad Z_{bd} = Z_{bd} \cdot P,$$

Here, Z_i, Z_{bd} - are special costs for mechanization, man.

It is necessary to take into account the scale effect of the fleet maintenance costs (the lower the cost per ton, the greater the load capacity), ie:

$$Z = Z_0 \left(\frac{Q}{Q_0} \right)^d \quad , \qquad (6)$$

here Q_0, Z_0 - the ability to ship, tone, and a selected vessel (train) - current costs for maintaining the prototype, t / h.

Cost of storage can be found as follows:

$$Z_{sax} = Z_{sax} \cdot G_{sax}.$$

Let us assume that the maximum amount of cargo storage at the port of departure is $G_{\max} = G$, at the destination port is $G_{\max} = G_h(1 - t_e / T)$. In this case, the average storage capacity of ships can be found in the range of ships:

$$G_{sax} = G\left[1 - t_e / T - G_{gün} / (24P)\right] / 2.$$

Go to the definition of special expenses. (5) by dividing the equation on the ship (train) by the amount of load $G = \rho' Q$ and making certain transformation:

$$Z = A / Q^{l+b+d} + BQ^d / P + CP + FQ / P + H, \qquad (7)$$
$$F = Z_{xo} l / (\rho' a Q_0);$$
$$B = Z_{do}(1+k) / Q_o^d;$$
$$C = 24 \sum Z_{bd} / G_{gün};$$
$$D = 24\rho' \left[Z_{sax(yük)} / 2 + Z_{sax(boş)} (1 - t_e / (2T)) \right] G_{gün};$$

$$F = Z_{sax(boş)}\rho' / 2$$
$$H = \sum (Z_i - Z_{bd})'$$

where K is a coefficient characterizing the ratio of productivity in load handling and loading, $K \le 1$).

Thus, we have acquired a two-dimensional equation that can be easily solved by the numerical methods of optimization, for example, the Huk-Chiv method. Let's clarify the example we are looking at. The full cost of the ship's fare on departure is $Z_{do} = 310\,man/ton$, and when it stops is $Z_{do} = 150\,man/ton$. Special expenses in the discharge port are $Z_i = 1{,}5man/ton$, $Z_{bd} = 1man/ton$, in storage is $Z_{sax} = 1{,}0man/ton$. Take the shipping ratios $\rho' = 1; K = 0{,}8$. Note that the load is consumed within 5 months (summer-autumn), ie T = 153 days. It is required to substantiate the loading and unloading of mechanization facilities at the discharge point. On the basis of processing of numerous data on dry cargo ships and trains, we accept a = 5, downwards a = 3, and for trains 3 and 2, for downhill mileage. We must take into account that the speed of the load lane is 12% -20% during the free movement. We accept empirical coefficients b = 0,2, d = 0,5.

Then,

$$A = 310 \cdot 413 / 1 \cdot 3 \cdot 1500^{0,5}) = 1102\ ,$$
$$B = 150(1 + 0{,}8) / 1500^{0,5} = 7\ ,$$
$$C = 24 \cdot 0{,}1 \cdot (1 - 100) / (2 \cdot 153))(100 / 50000) = 3{,}23 \cdot 10^{-3}\ ,$$
$$F = 0{,}1 \cdot 1 / 2 = 0{,}05\ ,$$
$$H = 1{,}5 - 1 = 0{,}5\ .$$

Numerically can be summarized as follows:

$$Z = 1102 / Q^{0,7} + 7 \cdot Q^{0,5} / \rho + 0{,}048P + 3{,}23 \cdot 10^{-3}Q - 0{,}05Q / P + 0{,}05;$$

After calculations we've got:

$$Q_{opt} = 1177t,$$
$$P_{opt} = 61t / saat$$

Special charges for the delivery of water by way of water will be 18mt / ton, taking into account the costs of mechanization and load maintenance at the discharge point. The equation can also be obtained sequentially with the help of individual derivatives, that is, the price of one of the variables. For this purpose, the productivity of mechanization at the level of the ship-hour norm is $P = Б_{yük}$ and after a number of simplifications we will have an unbalanced equation:

$$Z = A / Q^{l+b+d} + BQ / Б_{yük} / DQ - FQ / Б + 6\ . \qquad (8)$$

The optimum value of loading capacity Q can be easily reached by classic method as follows:

$$Q_{opt} = \left[(1 + b + d) \cdot A \cdot Б_{yük} / (dB)\right]^{1/(1+b)}\ .$$

After certain transformations we will get:

$$Q_{opt} = (K_x \frac{Z_x Б_{yük} l}{Z_{bd} a \cdot \rho'})^{q/(l+b)} , \qquad (9)$$

where K_3 is an empirical coefficient. For indirectly stored loads it is 0.2; K_3 = 0.3 for open loads.

The optimal loading capacity of sea transport for gravel transportation can be found as follows:

$$Q_{opt} = [(0{,}3 \cdot 310 \cdot 58 \cdot 413/(150 \cdot 3 \cdot 1))]^{1/1,2} = 1200t .$$

Find the characteristic of the ship to carry gravel from the book of inquiry. We choose a 942 project cargo carrier (barge or tanker etc.) with a load of 1000t.

We accept that the gravel emptying capacity is 1.6 m^3 and 5t gravity floating cranes are used. In the loading and unloading work, productivity is defined in accordance with complex mechanization and time norms:

$$P_{kom} = (588 + 286)/2 = 437\, t/növb .$$

This figure corresponds to the accepted productivity (438t hours). Let us determine the number of floating cranes that make up the crushed wagons and ships with the daily input and the need to master the load:

$$G_{gün} = 50000/100 = 500 \frac{t}{gün}; \quad , \qquad (10)$$
$$n = G_{gün} / П_{gün}$$

here $П_{gün} = K_{el} \cdot n_n \cdot P_{kom} -$ is the capacity of shipyard in the port, t / day;

n_n - number of turns;

$K_{el} = 0{,}6 \div 0{,}8$ is plus productivity, and is a factor that takes into account the impact of technical service on auxiliary mechanisms and devices.

$$П_{gün} =).* \cdot 3 \cdot 437 = 1049t/gün$$
$$n = 500/(0{,}8 \cdot 3 \cdot 437) = 500/1049 = 0{,}48 .$$

4. CONCLUSION

Thus, the calculation shows that a floating crane will be enough for the port. If $E_{yük} = G = 1000t$ is warehouse capacity in the port of loading, the necessary capacity of the warehouse in the port of emptying can be calculated as follows:

$$E_{boş} = G_H (1 - t_e/T) = 50.000(1 - 100/153) = 17320t .$$

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PLANNING AND FORECASTING OF QUALITY MANAGEMENT

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ABSTRACT
Quality management should be carried out on the basis of a set of scientifically based principles. All of them can be divided into general, system-wide and special. Among all the system-wide principles of quality management it is necessary to pay attention to the implementation of general management functions. The structure of general management functions includes in the following functions: planning and forecasting, organization, motivation, control. The planning of product quality is the establishment of reasonable tasks for its production with the required values of quality indicators at a given moment or within a specified time interval. The planning for quality improvement should be based on scientifically based forecasting of needs of the internal and external market. The subjects of product quality planning are ultimately various measures and indicators that reflect both the individual properties of the products and the various characteristics of the system and quality management processes. The product quality management receives a lot of attention in all countries. In recent years, a new approach, a new strategy has emerged in quality management, which is implemented through strategic and long-term planning. Recently, one of the important areas of improving the quality of products in an enterprise has been the planning of the preparation of manufactured products (works, services), quality systems and production for certification. Quality forecasting is the process of determining the possible values of quality indicators in the future period of time based on the analysis of quality data obtained in the previous time interval. The main methods of forecasting quality are research and norm. The implementation of research and normative forecasting is carried out by the following main methods: extrapolation; multivariate prediction; expert; mixed. For solving of complicated problems of quality management, should be used complex prediction methods.
Keywords: *general functions, quality planning, quality prediction, quality management, quality systems, motivation, organization*

1. INTRODUCTION

Quality management should be carried out on the basis of scientifically based principles which can be divided into general, system-wide and special. Taking into account of the system-wide principles of quality management, it should be noted that the main principle is that the quality management system should only be an integral part of the system management of the entire enterprise. The quality management system cannot function separately, without interconnection with all other management systems. Therefore, in quality management, the objective general management principles can be used. Among all system-wide principles of quality management it is necessary to pay attention to the implementation of general management functions. The general functions of management include the following functions: planning and forecasting, organization, motivation, control.

2. CHAPTER 1

Under the planning of the product quality is the establishment of reasonable tasks for its production with the required values of quality indicators at the given moment or within a specified time interval. The quality improvement planning should be based on scientifically

based forecasting of the needs of the internal and external market [1]. At the same time, the usage of data on the operation of products and the analysis of information on the actual level of its quality acquire a large role in substantiating plans for improving quality. The effectiveness of quality improvement planning should be ensured by the fact that it is carried out at different levels of management and stages of the product life cycle, including design, production and operation. Quality improvement plans should be supported by the necessary material, financial and labor resources. The planned measures to improve the quality should be justified by calculations of the economic efficiency. The list of the main tasks of planning the improvement of product quality includes:

- ensuring output with the maximum compliance of its properties with existing and future market needs;
- achieving and exceeding the quality of the best domestic and foreign samples;
- establishment of economically optimal tasks to improve product quality;
- improving the structure of products;
- an increase in the production of certified products;
- improvement of individual consumer properties of already manufactured products;
- timely replacement, removal from production of obsolete products;
- ensuring strict compliance with the requirements of standards, technical conditions and other regulatory documents;
- timely implementation of newly developed and revision of outdated standards;
- development and implementation of specific measures that ensure the achievement of the given level of quality;
- an increase in the economic efficiency of production and the use of products of improved quality.

The subjects of product quality planning are ultimately various measures and indicators that reflect both individual product properties and various characteristics of the quality management system. These indicators are reflected in the specific tasks to improve product quality, in plans for standardization and metrological support, the introduction of the quality management systems [4]. Planning for improving product quality is based on the general principles of the planning and application of the planning methods. The general principles of planning include:

- a combination of centralized management with unit independence;
- balanced accounting of resources and opportunities of the enterprise;
- complexity;
- drill down - the degree of planning depth;
- accuracy - the degree of tolerances and deviations of the plan parameters;
- simplicity and clarity;
- continuity;
- the possibility of using reserves and accounting for alternatives;
- taking into account in the planning of the achievements of science and technology, the requirements of promising standards, market needs;
- profitability.

Planning methods include:

- analytical, based on the performed work and the dividing into the used resources, and the analysis of the conditions for their most effective interaction;
- experimental - design standards, regulations and models of enterprise management subsystems on the basis of conducting and studying experiments, as well as taking into account the experience of managers;

- statistical - development of the draft plans based on reports, statistics and other factual information characterizing the real state and changes in the characteristics of the control subsystems.

In the planned activities to ensure the required level of quality, specific types of work are also used:

- analysis of customer requirements;
- study of demand;
- complaint analysis;
- consideration of the requirements of prospective standards;
- study of patent information;
- consideration of the changes in product certification requirements;
- implementation of planned calculations;
- the relationship of planned activities.

The planning links the plans of the company's divisions with its overall strategy and operational objectives. The planning tasks are the formation of the system of plans and indicators for evaluating their implementation. In order to ensure the improvement in the quality of products in the plans, enterprises must require from their suppliers the corresponding improvement in the quality of the raw materials, materials and other components of the products supplied by them. The presentation of increased quality requirements for supplies should be accompanied by assistance to suppliers to improve the quality of their products [1,3].The forms of such assistance and the cost of its assistance should be the subject of planning for improving the quality of the enterprise. Mostly, the basis of the plan for improving the quality of products in an enterprise is:

- tasks to achieve and exceed the quality level of the best domestic and foreign samples;
- tasks to increase the production of certified products;
- tasks to improve the individual indicators of the quality of products;
- tasks for the development and implementation of specific measures to achieve the given level of quality and etc.

As independent directions of planning for improving the quality of products in the enterprise usually distinguish:

- in-house product quality planning;
- planning the implementation of a quality management system in the enterprise;
- planning of staffing to improve the quality of products;
- planning to reduce the expense of the enterprise for spoilages;
- product quality planning in contracts.

In recent years, the standards of the ISO 9000 series have become widespread, reflecting the international experience of product quality management in an enterprise. In accordance with these documents, a quality policy is defined, including the improvement of product quality management and its provision. The quality policy should include:

- improving the economic situation of the enterprise;
- expansion or conquest of new markets;
- achieving a level of product quality that exceeds the level of leading enterprises and firms;
- focus on customer satisfaction;
- development of products, the possibilities realized on the basis of new principles;
- improvement of the most important indicators of product quality;

- reducing the level of defectiveness of manufactured products;
- extension of warranty periods for products;
- service development.

Product quality management in all countries receives a lot of attention. In recent years, a new quality management strategy has been formed, which is implemented through strategic and long-term planning. It is characterized by:

- quality assurance is understood as a systematic process that permeates the entire organizational structure of a firm;
- quality issues are relevant not only in the production cycle, but also in the process of development, design, marketing and after-sales service;
- quality should be focused on meeting the requirements of the consumer, not the manufacturer;
- improvement of product quality requires the use of new production technology, automation in the process of quality control;
- a comprehensive quality improvement is achieved only by the interested participation of all employees.

The above is feasible only with the action of a well-organized quality management system aimed at the interests of consumers, affecting all divisions. For the structural units of the enterprise, depending on their specifics, it is necessary to set specific targets for improving the quality of production and quality of work. These tasks should be clearly linked to the subsequent assessment and stimulation of production activities of structural units. For the assembly shops of enterprises it is advisable to plan: the main indicators of product quality; the level of delivery of products from the first presentation; reduction of expense for spoilages and complaints. For these workshops, it is also advisable to plan to reduce the number of returns of parts from consumers. For auxiliary workshops, it is advisable to plan both indicators and activities, the implementation of which should ensure the high quality of products in the main workshops. If the quality of products and the quality of the works cannot be expressed by a small number of indicators, then it is advisable to use quality factors. The level of quality factors depends on the implementation of a large number of measures to improve the quality of manufactured products. Based on their specificity, their own criteria for quality improvement and the corresponding standards for changes in indicators are established [3]. It should be noted that the quality of production and the quality of work can be the object of internal production planning. In shops, this is the share of products delivered from the first presentation, reduction of expense for spoilages and complaints and return of products from consumer shops. The required level of product quality can be jointly established by its manufacturer and the consumer in the contract. When planning the required level of product quality in contracts, it is necessary to take into account that its determination can be carried out in the following ways: by standards; on samples, catalogs and projects of the seller, which is an integral part of the contract. For complex technical products and products for which there are no standards, quality is determined by technical conditions. In this case, the technical conditions are usually given in the annex to the contract themselves. The quality of the food products is confirmed by the presence of an appropriate certificate, a veterinary certificate issued by the veterinary service, as well as a sanitary certificate issued for each consignment of goods. In determining the quality of the sample supplier provides the consumer with a sample of products. After confirmation by the consumer of this sample, it becomes a benchmark. In contractual relationships between suppliers and consumers, conflicts often arise, so the selected samples are stored not only from the parties to the contract, but also in a neutral firm set forth in the contract. Among the requirements for the quality of products, the production of which is organized simultaneously

in a few enterprises, the parties to the contract may indicate in the contract text the specific manufacturer of the product. A serious problem that arises when planning product quality in contracts is a clear definition of all the conditions for checking the quality of the goods. Checking the quality of goods always depends on its nature and purpose. If the product is a technically complex product, then it must be checked in the work. To do this, the consumer should be granted the right to make claims for a sufficiently long period of time. If the goods are food products, its quality acceptance usually consists of an external examination and examination. Such an acceptance is carried out on the basis of documents confirming the quality of the goods, the date and place of its production, the shelf life, etc. Product quality guarantees are usually highlighted in a separate article of the contract.

3. CHAPTER 2

When creating a new product, it is often necessary to forecast it first, and then develop the complex basic quality indicators to optimize the numerical value of the complex quality indicator which the quality level of the production is evaluated on its basis. Only after this, they proceed to the development of the design and technology of manufacturing a new product with a corresponding quality level. Quality forecasting is the process of determining the possible values of quality indicators in the future period of time based on the analysis of quality data obtained in the previous time interval. Predicting product quality is a probabilistic assessment of the movement and change over time of the combination of indicators characterizing quality [2]. The main methodological methods of forecasting quality are research and regulatory. Research forecasting is focused on existing and potential opportunities. It involves the analysis of existing trends in indicators of the quality of similar products over time. The purpose of the research forecast is to determine alternative values of quality indicators based on the achieved level of knowledge about the predicted quality of products. Regulatory forecasting is aimed at solving problems arising both now and in the future. It allows you to formulate goals and objectives that must be solved. In this case, particular tasks are considered in stages and in the direction from the future to the present. For regulatory forecasting, you must have a regulatory framework for quality indicators. These standard indicators are the quantitative requirements of the relevant standards. The use of standards, reflecting the achievements of scientific and technological progress, and the consideration of production capabilities allow us to predict the level of quality for the future. The implementation of research and regulatory forecasting is carried out by the following main methods [3]:

- extrapolations;
- multifactor prediction;
- expert;
- mixed.

Expert forecasting methods basically allow us to solve issues of the forward-looking assessment of product quality indicators with the evolutionary nature of the development of science and technology. The possibility of the appearance of a “jump” determines the use of mainly expert methods of forecasting. A promising factographic method, allowing to establish the limiting technical capabilities of this generation of products is the method of enveloping curves.

4. CONCLUSION

Recently, one of the important areas of improving the quality of products in the enterprise has been the planning of the preparation of manufactured products (works, services), quality systems and production for certification. In drawing up quality improvement plans for each structural subdivision, one should proceed from the level of quality indicators approved in the enterprise plan.

The widespread use has a quality prediction method based on the analysis of cycles of fluctuations of their level of quality and cycles of fluctuations in the demand for these products. This method allows you to determine not only the achievable values of a parameter within a given product generation, but also to calculate the time of appearance of a new product, as well as the period of the possible existence of this product generation. To solve complex problems of quality management, the complex forecasting methods should be used.

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MANAGEABILITY OF FINANCIAL RISKS AS AN IMPORTANT FACTOR OF FINANCIAL STABILITY

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ABSTRACT

The article notes that in modern conditions risk is an inevitable element in making any economic decision. There is a limit after exceeding which the risk could jeopardize the functioning of a business. Therefore, it is necessary to determine whether the expected profitability is sufficient for risk aggregation and realization of profits. Much attention is paid to the importance of a rational choice for a probable assessment, considering risk situations and substantiation of design options for decisions made. It is necessary to distinguish between managed and unmanaged risk situations. The problem of expansion and strengthening of the degree of controllability of financial risks arises based on an accurate assessment of the real risk situation. Manageability of financial risks acts as an important factor of financial stability. In turn, neutralization of uncertainty factors to some extent can be assessed as a form of financial risk management and effective consideration of risk factors in the implementation of an economic strategy. As a result, positive changes in the financial system develop into a qualitatively new condition contributing to financial stability. In general, financial risk shows the imperfection of the self-regulation market mechanism and makes external regulation necessary. Therefore, in the conditions of spontaneous market relations, the role of state regulation is increasing. To ensure financial stability, enterprises must maintain their solvency, liquidity and creditworthiness at the right level. The economic strategy of the state and business structures are dialectically interconnected with state regulation methods. The main task of ensuring the sustainability of the financial system based on its systemic regulation is to achieve manageability of financial risks in this area.

Keywords: *financial risks, financial system stability, risk manageability, regulatory methods, uncertainty*

1. INTRODUCTION

In the current context, uncertainty is an inevitable characteristic of economic environment. It is known that the liberalization of the economy, openness of economic systems and globalization of world economic processes stimulate both internal and external factors of chaotic tendencies, give rise to new areas and objects of uncertainty. Thus, uncertainty is present in all areas and processes of the economy. Accordingly, risk is an objectively inevitable element in making any economic decision. Risk is the uncertainty of income generation and the probability of loss of the net worth of the company. There is a limit, to exceed which is to jeopardize the functioning of a business. The risk must be calculated to the extent possible [1]. Therefore, it is necessary to determine whether the expected profitability is sufficient to offset the risk and to make a profit. Many a time, companies face risks arising from business development, such as an extension in planning horizons, an increase in the unpredictability of the external environment, and a competitive expansion. Uncertainty is a source of potential risks and, therefore, losses. Of great importance is the systematic study of the characteristic signs of the manifestation of uncertainty in various spheres and processes. It is important to consider the singularity and nature of the analyzed economic systems and processes. Competition between producers and buyers, contradictions between the interests of monopolies, large discrepancies and deviations limit the effectiveness of the market systems, reduce the effectiveness of applied economic resources and the level of macroeconomic stabilization, as well as impede the achievement of

strategic economic goals. All this contributes to the increasing complexity of risk situations and uncertainty in all areas. Therefore, it is especially important to make a rational choice according to a probable assessment, taking into account risk situations and validity of the calculated options for decisions made. It is necessary to draw a line between manageable and unmanageable risk situations. All this can largely contribute to minimizing the impact of these factors on the increasing uncertainty [2]. Thus, neutralization of uncertainty factors can be considered to some extent as a form of an effective financial risk management in the implementation of an economic strategy. Every firm, corporation and the state as a whole should be objectively interested in risk management. Therefore, both the company and the state should strive to find acceptable and more advanced methods to reduce randomness and uncertainty, as well as to avoid risk. In more complex situations, the prevention and prediction of possible risks should be based on the most advanced scientific methods, including mathematical statistics. In this case, we understand the concept of "prevention" and "prediction" as elements of regulation and risk management. Regulation itself does not completely eliminate financial risks in a market economy, however, it mitigates the existing circumstances, facilitates business activity, and as a result, the degree of controllability of financial risks increases, which is known to be an important factor of financial stability. In economics, stability is considered as one of the notions of the concept of economic development. The stability of an economic system can be defined as its ability to maintain constancy in a changing external and internal environment, as well as spontaneous, accidental or deliberate transformations [3]. In this connection, the problem of expansion and strengthening of the degree of controllability of financial risks arises on the basis of an accurate assessment of the real risk situation. Methods of financial risk management should fully comply with the needs and requirements of the modern financial system, they should also contribute to strengthening of the financial stability by expanding the range of financial risk manageability. This approach is especially important in crisis situations, when financial opportunities are limited. Since the higher the level of controllability of financial risks, the greater the possibility of minimizing expenditures of financial resources. As a result, positive changes in the financial system develop into a qualitatively new state, contributing to financial stability.

2. THE COMBINATION OF GOVERNMENT STRATEGY AND BUSINESS STRUCTURES IN THE FIELD OF FINANCIAL RISK MANAGEMENT

Financial risk reveals the imperfection of the market self-regulation mechanism and makes external regulation necessary. The market mechanism cannot prevent imbalances in the financial system and the economy as a whole, and to ensure the stabilization of macroeconomic indicators. In the conditions of spontaneous market relations, the role of state regulation increases significantly. In this case, it is important to apply principles and methods of rational choice of the economic activities of the market system participants, taking into account their economic goals and behavioral motives, the optimal combination of state strategy with corporate strategy. The recognition of economic goals and strategies by the state and entrepreneurs is of great importance in managing financial risks. This should be a priority recognized both by the state and by business structures [4]. In general, in order to achieve manageability of financial risks, risk management processes at the macro and micro levels should complement each other. Indeed, according to the system theory, each particle of a system must itself carry the features of the entire system, and, in its turn, the final state of the system depends on the state and interdependence of all the constituent particles. With a market economy and, moreover, with a fast-paced business environment, risk management comes to the fore for entrepreneurs. Today, there is no business without risk. It is true that the one who does not risk takes the greatest risk. But one must take the risk at the right time. It is widely believed that high-risk market transactions always generate the greatest profit.

But it's not always the case. The main thing is to predict future situations as accurately as possible and handle them proactively. After all, all market valuations are multivariate. The risk must be reasonable. It must be calculated to the extent possible. As is known, no one is inoculated against the mistakes of the entire market activity. However, everything needs measure. The entrepreneur, along with the accurate calculation of future operations, must also constantly adjust the system of actions from the perspective of maximum profit, provide additional opportunities to mitigate unexpected turns in the market in order to reduce possible losses as much as possible. Risk management is one of the most important areas of modern management in the context of a complex choice of management decisions. When developing a risk business, an entrepreneur who avoids risky decisions dooms the organization to a loss of competitiveness. In modern conditions with the expansion of range of risky situations, risk management is a necessary element of control. The main tasks of the manager in risk management are to identify the area of increased risk, to assess the degree of risk and to take measures to prevent it. In order to achieve risk controllability, it is necessary to predict to a certain extent the occurrence of a risk event and take measures to reduce risk in time. As a rule, the risk of an entrepreneur is quantitatively characterized by an estimate of the expected value of the maximum and minimum income (loss) from capital investment. The greater the range between the maximum and minimum income (loss) with equal probability of receiving them, the higher the degree of risk. And accordingly, the greater the uncertainty of the economic situation, the higher the degree of risk. It is very important to keep in mind that in risk management there can be no sample and ready-made recipes. Definitely, one cannot risk more than the capital can allow, and still one shall not risk much for the sake of the small. Before making a decision on the risk-related capital investment, the manager must determine the maximum amount of loss for this risk, compare it with the amount of invested capital and with all its own financial resources. A sensible entrepreneur is unlikely to put their business at risk to utter ruin and will not risk all their means to achieve the goal. Risk management means correct risk assessment. It is important for an entrepreneur to know the cost of the risk to which their activity is exposed. Under the cost of risk, the actual losses of the entrepreneur, the cost of reducing the amount of losses or the cost of compensation for these losses should be understood. Based on the available information, various options for risk-related capital investments are developed and an assessment of their optimality is provided by comparing the expected profit and the risk magnitude. This allows you to choose the right risk management strategy and techniques, as well as ways to reduce the risk. In order for financial risks to be manageable, one must be able to feel the risk, assess its degree and not overrun allowable limits. To ensure financial stability, enterprises must maintain their solvency, liquidity and creditworthiness at the right level. After all, the stability of the financial condition of enterprises is, first of all, its ability to make timely payments to the state, suppliers and other creditors. But the financial stability of enterprises depends not only on internal, but also on external factors. The internal factors include the state of the company's assets, their turnover, as well as the structure of the sources of formation of these assets. External factors include state budget and tax policies, interest and depreciation policies, market conditions, etc. [5]. Experience has proven that external factors most adversely affect the financial position of enterprises. In connection with inflation and a reduction in demand, economic ties are collapsing and, as a result, the financial position of enterprises remains fragile. At present, in order to ensure a stable financial position of enterprises, the main task in the field of financial management should be to find sources of financing in order to increase capital with minimal risk for the borrower. In market conditions, in order to reduce the possibility of risk-related situations, the use of borrowed funds for financing is impractical, since their high share leads to even greater financial instability. In a context of uncertainty, state regulation with the use of a wide range of instruments plays an important role.

The economic strategy of the state, in contrast to the strategy of entrepreneurs, is usually of a macroeconomic nature. In the social and economic terms, this strategy is predetermined by the criterion of models of various economic systems. The economic strategies of the state and the business structures are dialectically interconnected with state regulatory methods, in particular financial and economic, regulatory and administrative, legal and market regulation. In this regard, it is time to stop the trend of opposing state regulation and self-regulation. It is clear that it is impossible to organize the economic life of society basing on nothing but the market principles; the market itself is not able to provide economic sustainability. However, this does not mean a mechanical combination of state regulation with self-regulation and self-organization, of power structures with a business structure. The major task of regulation is the specific definition of the main landmarks and levers of economic dynamics. Unfortunately, the global crisis clearly showed that the situation in the financial sphere moved beyond the framework of scientific interpretation of economic problems, the tendency to conduct a variety of major frauds and manipulations on the financial market intensified, and the interests of investors were infringed. But the post-crisis financial concept has not yet become a regulatory phenomenon, a fundamental factor in the stability of the financial system.

3. ACHIEVING MANAGEABILITY OF FINANCIAL RISKS AS THE MAIN CONDITION FOR FINANCIAL STABILITY AND SUSTAINABILITY

A stable financial system has the ability to limit and eliminate imbalances through self-adjustment mechanisms before they lead to a crisis, i.e. the ability to function, keeping its structure unchanged and maintaining balance [6]. The system analysis of factors that adversely affect the normal functioning of the financial system is very important in present-day conditions. In general, financial regulation should be aimed at reducing systemic risk and protecting investors. As is commonly known, financial instability is directly related to two conditions. The first one concerns the existing structural and macroeconomic conditions in the productive economy in which the financial system operates. The second condition is directly related to the financial system itself, i.e. the state of financial markets and conditions for the conclusion of financial transactions. In order to analyze the possible channels of financial instability, it is necessary to distinguish between macro- and micro-measures of systemic risk. Macro-systemic risk arises when the entire financial system is exposed to macroeconomic risk. This happens if the risks assumed by financial institutions are mutually correlated and, as a result, the weakening of the entire financial system can lead to deleverage, i.e. reduction of business loans. Micro-systemic risk occurs when the bankruptcy of an individual institution has an adverse effect on the financial system as a whole. For example, financial institutions connected by credit lines with a bankrupt company may incur losses as a result of risk-related situations [7]. Macro- and micro-systemic risks are often interconnected and one can lead to another. Financial regulation should also be aimed at protecting the interests of private consumers and investors. This protection in the financial markets is necessary, because they have information problems that allow financial product sellers to get advantages compared to the buyers of such products. It should be noted that consumer protection is quite well defined and concerns the conduct of operations in both retail and wholesale markets. The stability of the financial system is an important condition for preserving its own integrity and sustainability of the economic system as a whole. The stability of the financial system involves a balanced, dynamic economic development. The main task of ensuring the sustainability of the financial system based on its systemic regulation is to achieve manageability of financial risks in this area.

4. CONCLUSION

The global financial and economic crisis has shown once again that the main conditions for successful social and economic development is the sustainability of the financial system. In the current context, risk is an inevitable characteristic of economic conditions. A financial system is considered sustainable if it allows assessing and distributing financial risks and managing them. According to the law of system analysis, a financial system can be considered stable if it has self-regulation mechanisms. In conditions of spontaneity of market relations, state regulation plays a significant role. The economic role of the state and business structures should be dialectically interrelated in the field of financial risk management. In this regard, it is time to stop the trend of opposing state regulation and self-regulation. It is clear that it is impossible to organize the economic life basing on nothing but the market principles: the market itself is not able to ensure economic sustainability. At the macro and micro levels, the method of managing financial risks must fully comply with the requirements of the modern financial system, and they should also contribute to strengthening of the financial stability by expanding the range of financial risk manageability.

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FOREIGN DIRECT INVESTMENTS IN OIL SECTOR AND SUSTAINABLE DEVELOPMENT IN AZERBAIJAN

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ABSTRACT

The paper investigates impact of foreign direct investment (FDI) in the oil sector in Azerbaijan on sustainable development, including components of the economic growth and well-being of the population. Assessment of employment level dependence on FDI shows that FDI in the oil sector does not have a significant impact on employment. There are several reasons for this. First, main part of FDI volume entering the country is mainly focused on the oil sector, this sector is capital-intensive, not labor-intensive, and investments are spent in the development of more core capital and application of new technologies in this sector. Although FDI has a certain impact on the level of employment in the oil and gas sector, such impacts are not felt in the economy as a whole. The effects of FDI on the poverty level are also an important issue. Studies show that the use of FDI is crucial in reducing poverty. As well as this paper shows that FDI plays an important role in reducing poverty in Azerbaijan. The impact of FDI on poverty takes place in different countries through different mechanisms. This is due to the diversity of areas where the FDIis directed. Since the main part of the FDI in Azerbaijan focuses on the oil and gas sector, the value added generated in this sector allows the country's revenues to be recovered from the Oil Fund and the redistribution through the state budget make it possible for the FDI to be used efficiently. Thus, the fact that FDI is included in the country does not mean that the economic and socio-economic effects of this funding are positive. The positive impact of economic effects of FDI and its rational use depend on the economic conjuncture of each country.

Keywords*: employment, GDP, income, investment, oil sector, poverty, sustainable development*

1. INTRODUCTION

The contradiction between globalization and autarky presents itself in various fields, including local governments, in the relations between International Financial Institutions and Transnational Companies. The globalization process involves a broad spectrum of cooperation between local governments and international organizations, and, on the other hand, the autarky means the country's economic self-sufficiency and its isolation from the global economic system. The activity of transnational companies in other countries, especially in developing countries, contributes to the rapid integration of these countries in the globalization process. It is no coincidence that all methods of assessing globalization quantitatively are reflected in cooperation of local countries and transnational companies. Transnational Companies are the second important instrument for the realization of the globalization process as International Financial Institutions. The essence of mechanism of these companies' activity is related to the fact that the direct investment enter the country freely and the exemption of earnings from the country is free. Some impacts of foreign investment directed to Azerbaijan are similar to the impacts related to “countries with transition economies”. In such countries, investment environment is very similar to each other. Investment environment depends on the political, economic, social, geographical and other factors of the country.

Most favoured investment environments in most of the newly-separated countries from Soviet-type economic planning, including Azerbaijan, could not have been suddenly established. Because investment risk for some of these countries such as Azerbaijan, Kazakhstan and Russia was still high, though they have investment potential. Legislative system and state administration necessary for investment protection and creation of favorable business environment were not fully formed. Most of these countries did not have political stability. The political stability necessary for the flow of foreign investments in Azerbaijan only came into existence in 1994. In the subsequent years, the sustainability of this stability had a significant impact on the volume of investments. The investment ratings given to Azerbaijan by international organizations involved in assessing investment climate prove it.

2. LITERATURE REVIEW

In economic literature, there are many studies dedicated to the impact of investment directed to an oil sector on the economic development or any economic activity of some countries. For example, L. Alfaro confirms it considering positive effects of foreign direct investment on economic growth (Alfaro, L., 2003), (De Mello, Jr.L.R., 1997), and David Kim and Jung-Soo Seo empirically in the example of Korea (Kim, D.D.K. and J.S. Seo, 2003). Such studies are often seen in the oil-rich countries. This problem is always in the focus of attention in Azerbaijan's economic science. A.Musayev (A. Musayev, Khatai Aliyev (2017), E. Hajizade (Hajizade E. (2012), M.Gulaliyev (M.Gulaliyev, 2016) and others have studied this problem from a variety of perspectives, but in most of these studies economic growth was taken as a whole object of research.

3. METHODOLOGY

According to R. Lipsey *(Lipsey R.E, 2003),* assessment of the impact of foreign investment on the country's economy is important for three reasons. Firstly, such assessments clarify the necessity of involving foreign investment in the country. Secondly, such assessments help to create the right economic policy on how much and on what terms foreign investments are involved. Thirdly, such assessments create conditions for the "weak" points of the country's economic system to benefit from foreign investment in the future. Failure to study the effects of foreign direct investment (FDI) in the oil sector on separate components of economic growth puts its social importance and potential impact on the welfare of the population in the shade. On the other hand, non-learning of impacts of FDI on economic growth and its components through econometric methods can not allow predicting long-term impacts. So, the main question we face is how foreign direct investments to the oil sector affect the economic growth and its components. Here are two hypotheses that need to be identified:

- 1st hypothesis: H_0: There is no effect of foreign investments directed to oil sector (X1), on cumulative FDI (X2) to oil industry, total foreign investments (X3) on economic growth (Y1), employment level (Y2), per capita income (Y3), poverty level (Y4).
- 2nd hypothesis: H_1: The indicators of X1, X2, X3 have the effect on the indicators of Y1,Y2,Y3.

In order to determine the dependence of economic growth and other indicators on the development of the oil and gas sector, we can describe the relationships we have mentioned above in 4 equations as follows.

$$\boldsymbol{Y1_t = a1_t + b1_t * X1_t + b2_t * X2_t + b3_t * X3_t + e1_t} \quad \textbf{(1)}$$

$$\boldsymbol{Y2_t = a2_t + c1_t * X1_t + c2_t * X2_t + c3_t * X3_t + e2_t} \quad \textbf{(2)}$$

$$Y3_t = a3_t + d1_t * X1_t + d2_t * X2_t + d3_t * X3_t + e3_t \quad (3)$$

$$Y4_t = a4_t + h1_t * X1_t + h2_t * X2_t + h3_t * X3_t + e4_t \quad (4)$$

Here, $Y1_t, Y2_t, Y3_t, Y4_t$ express, properly, indicators of GDP volume, employment level, per capita income and poverty level for years; $X1_t, X2_t, X3_t, X4_t$ express, properly, indicators of foreign investments to oil sector, cumulative FDI for oil industry and physical volume of total foreign investments for years; $a1_t$, $a2_t$, $a3_t$, $a4_t$, $a5_t$; $b1_t, b2_t, b3_t, b4_t$, $c1_t, c2_t, c3_t, c4_t, d1_t, d2_t, d3_t, d4_t, h1_t, h2_t, h3_t, h4_t$ are coefficients, $e1_t, e2_t, e3_t, e4_t$ are balances.

4. RESULTS

The main part of foreign investments attracted to Azerbaijan is related to direct investments (FDI). As with financial loans, the main part of the FDI is focused on the energy sector, or rather the oil sector. The volume of domestic investments directed to the economy of Azerbaijan as well as the distribution of foreign investments by oil and non-oil sectors show that the volume of investments directed to the non-oil sector over the past 20 years is comparable to other types of investment. In other words, it is not right to link certain development of the non-oil sector in Azerbaijan to investment in the oil sector in recent years. So, both foreign investment and domestic investment is directed to the development of this field. However, it should be taken into account that investment in the non-oil sector is also linked to the oil and gas sector. When investing in the non-oil sector, the population's living standards, purchasing power are taken into account. The latter are largely dependent on foreign investment in the oil sector. Until 2009, the FDI in Azerbaijan's economy dominated the domestic investment, but an increasing tendency was observed. In subsequent years, domestic investments have increased dramatically. The coherent structure of foreign investment in the Azerbaijani economy also provides interesting information. Thus, if foreign investments directed to the oil sector exceeded the foreign investments attracted to the non-oil sector by 2008, the situation changed after that year. Since 2008, most of the foreign investment has been attracted to the non-oil sector. This is due to the fact that after the complete realization of the "Contract of the Century" by 2008 and the infrastructure necessary for the construction of the Baku-Tbilisi-Ceyhan pipeline in 2004, the volume of investments in the oil sector declined in the years to come. Such a landscape is also observed in the CIS countries. In 2010, the volume of investment in other CIS countries also decreased. In 2010, foreign investment in these countries decreased by 5% to $ 68 billion compared to 2009. (World Investment Report, 2011). With the realization of the gas contracts signed by Azerbaijan in recent years, it is expected that foreign investments in the energy sector and oil industry will increase again. As the main source of foreign direct investment is developed countries, the global financial crisis has a negative impact on this process. Decrease in the volume of FDI in developing countries during the 2008 financial crisis showed similarly itself in the amount of foreign investment in Azerbaijan. In 1995, more than 37% of the foreign investment was directed to the oil sector, based on investments in fixed capital in the Azerbaijani economy. By 2004, this figure was even more than 89%. In the following years, the share of investments in the non-oil sector has increased. The share of the non-oil sector in the division of domestic investment is much higher than in the oil sector. For example, the volume of domestic investments directed to the non-oil sector in the economy of Azerbaijan exceeded the oil sector by 2.7 times until 2002. In the subsequent years, this tendency continued, and the volume of investments directed to the non-oil sector was considerably higher than in the oil sector. This is mainly due to two reasons. Firstly, the oil sector in Azerbaijan is in state-owned sector and it is impossible for domestic private sector entities to invest in this sector. Secondly, since most of the companies operating in the oil sector are foreign companies, more foreign investment is being

directed to this sector. Most of the foreign investment in the economy of Azerbaijan is related to the oil industry. So, the main share in the list of the countries investing is related to the countries, which have the ownership of transnational companies, which are well known in this field of the economic activity. The UK and the US, which are directly investing in oil fields in Azerbaijan are the countries that transnational companies which have a leading role in Azerbaijan International Operating Company, BTC Co and SCP Co, are situated. Turkey and the UK have the largest share in the volume of foreign investments attracted to the Azerbaijani economy by joint ventures and foreign investment enterprises. Nevertheless, foreign investments in this type constitute very few of the total foreign investment. Only 9% of foreign direct investment in Azerbaijan in the period from 1995 to 2013 amounted to $ 81.1 billion, is related to the joint ventures and foreign investment enterprises. The cumulative volumes of foreign direct investments as separate indicator as well as the annual foreign direct investments directed to the oil and gas sector. This is due to the fact that the effects of the investment can be felt in a few years.

Table 1: FDI and dynamics of some macroeconomic indicators

Years	GDP volume (million AZN)	Employment Level	Per Capita Income	Poverty level	FDI to the oil industry (USD million)	Cumulative FDI to the oil industry (USD million)	Total foreign investments (USD million)
	GDP	UNEM	INCOME	POVERTY	X1	X2	X3
1995	2134	99.2	-	-	139.8	139.8	375.1
1996	2733	99.1	-	-	416.2	556.0	620.5
1997	3158	99.0	-	-	780.1	1336.1	1307.3
1998	3441	98.9	-	-	891.8	2227.9	1472.0
1999	3775	87.3	-	-	544.5	2772.4	1091.1
2000	4718	88.2	508.9	-	546.1	3318.5	927.0
2001	5316	89.1	535.5	49	820.5	4139.0	1091.8
2002	6063	90.0	618.8	46.7	1966.3	6105.3	2234.9
2003	7146	90.8	707.2	44.7	2972.4	9077.7	3371.0
2004	8530	92.0	796.7	40.2	4088.1	13165.8	4575.5
2005	12523	92.7	962.2	29.3	3799.9	16965.7	4 893.2
2006	18746	93.4	1201.3	20.8	3422.3	20388.0	5 052.8
2007	28361	93.7	1692.2	15.8	4003.3	24391.3	6 674.3
2008	40137	94.1	2378.3	13.2	3350.7	27742.0	6 847.4
2009	35602	94.3	2560.4	10.9	2412.7	30154.7	5 468.6
2010	42465	94.4	2866.1	9.1	2955.3	33110.0	8 247.8
2011	52082	94.6	3371.7	7.6	3407.8	36517.8	8673.9
2012	54744	94.8	3789.3	6	4287.8	40805.6	10314.0
2013	58182	95.0	4040.3	5.3	4935.2	45740.8	10540.9
2014	58978	95.1	4192.4	5	6730.7	52471.5	11697.7
2015	54352	95.0	4380.7	4.9	6622.7	59094.2	10719.1
2016	60394	95.0	4709.8	-	5617.4	64711.6	10161.1

Note: The table is based on the data of the State Statistical Committee of the Republic of Azerbaijan

Here is given the correlational relationship between the volume of GDP and investment in the oil sector, the cumulative volumes of such investments and the overall macroeconomic indicators with the volume of FDI in Azerbaijan. As you can see from the table, there is a serious correlation between GDP volumes and X1, X2 and X3. Because of the multicollinearity among last three variables, we will take the third variable, namely the total FDI volume (X3) for the country's economy, as a key variable for the research. The calculations show that GDP dependence on X3 is strong enough and the H_1 hypothesis is justified for the correlation between these indicators (Table 2).

Table 2: Dependence of GDP volume on FDI in Azerbaijan

Dependent Variable: UDM
Method: Least Squares
Date: 09/01/17 Time: 13:09
Sample: 1995 2016
Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X3	5.703709	0.334653	17.04367	0.0000
C	-4549.384	2177.563	-2.089208	0.0497

R-squared	0.935585	Mean dependent var	25617.27
Adjusted R-squared	0.932364	S.D. dependent var	22877.23
S.E. of regression	5949.651	Akaike info criterion	20.30656
Sum squared resid	7.08E+08	Schwarz criterion	20.40575
Log likelihood	-221.3722	Hannan-Quinn criter.	20.32993
F-statistic	290.4867	Durbin-Watson stat	0.816210
Prob(F-statistic)	0.000000		

Note: the author has calculated through the EViews programming

Using the statistical results in Table 2, the model of communication between GDP and oil revenues in Azerbaijan can be summarized as follows:

$$\widehat{GDP} = \mathbf{5.7037*X3 - 4549.384} \qquad \mathbf{(5)}$$
$$(0.3346) \quad (2177.563)$$

If we look at the dependence of employment level on the variables X1, X2 and X3, we see that these indicators do not have a significant impact on employment. There are several reasons for this. The firstly, that investments in this sector are mainly focused on the development of core capital and the application of new technologies, since the main part of the FDI, which is part of the country, focuses on the oil sector, and this sector is not labor-intensive, but more capital-intensive. Although FDI has a certain impact on the level of employment in the oil and gas sector, the impacts of the economy overall are not so significant. The second reason is that most of the employed population in Azerbaijan has a status of "self-employed". According to the World Bank, in 2017 only 35% of the employed population are salaried workers in Azerbaijan. Over the last 25 years this figure has increased from 22% to 35%. According to the data of the State Statistical Committee of the Republic of Azerbaijan, the employment in the oil and gas industry has only 1% of the total number of employed population. But given that oil revenues from the industry boost the development of other industries in the country, then level of employment would also be dependent on the FDI towards this sector. However, as a result of the reallocation of the incomes along with the fiscal policy, the impact of the FDI on employment is not at the level to be felt. Therefore, the $\boldsymbol{H_0}$ hypothesis is valid for the connection between these indicators. An analysis of the dependence of the per capita income on FDI also suggests that the correlation between these indicators is strong. But since X1, X2, X3 have multicollinearity, we will only consider X3 in the model.

Table following on the next page

Table 3: Dependence of per capita income on FDI volume in Azerbaijan

Dependent Variable: ABGELIR
Method: Least Squares
Date: 10/01/17 Time: 14:44
Sample (adjusted): 2000 2016
Included observations: 17 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BXI	0.418182	0.035914	11.64413	0.0000
C	-430.1042	265.0420	-1.622778	0.1255

R-squared	0.900389	Mean dependent var	2312.459
Adjusted R-squared	0.893748	S.D. dependent var	1537.362
S.E. of regression	501.1229	Akaike info criterion	15.38171
Sum squared resid	3766863.	Schwarz criterion	15.47974
Log likelihood	-128.7445	Hannan-Quinn criter.	15.39145
F-statistic	135.5857	Durbin-Watson stat	0.854104
Prob(F-statistic)	0.000000		

Note: the author has calculated through the EViews programming

Thus, calculating the correlation relationship between the volume of per capita income and the FDI volume gives such a result that the correlation coefficient between these two indicators is strong enough and R = 0.95. Therefore, we can express the equation (3) as (6):

$$\widehat{INCOME} = 0.418182 * X3 - 430.1042 \qquad (6)$$
$$(0.0359) \qquad (265.042)$$

The impacts of FDI on the poverty level are also an important issue. Since the main part of the FDI in Azerbaijan focuses on the oil and gas sector, the added value generated in this sector, the accumulation of the country's revenues in the Oil Fund and the redistribution with the state budget make it possible for the FDI to be effectively used. Thus, FDI flows to the country do not mean that the economic and socio-economic effects of this funding are positive. The positive nature of the economic impacts of the FDI and its rational use depends on the economic conjuncture of each country.

Table 4: Dependence of the poverty level on FDI in Azerbaijan

Dependent Variable: RPOVERTY
Method: Least Squares
Date: 10/01/17 Time: 17:08
Sample (adjusted): 2001 2015
Included observations: 15 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X3	-0.004667	0.000590	-7.911315	0.0000
C	51.80495	4.366336	11.86463	0.0000

R-squared	0.828017	Mean dependent var	20.56667
Adjusted R-squared	0.814788	S.D. dependent var	16.77305
S.E. of regression	7.218501	Akaike info criterion	6.914738
Sum squared resid	677.3879	Schwarz criterion	7.009144
Log likelihood	-49.86053	Hannan-Quinn criter.	6.913732
F-statistic	62.58891	Durbin-Watson stat	0.687754
Prob(F-statistic)	0.000003		

Note: the author has calculated through the EViews programming

$$\widehat{Poverty} = 51.805 - 0.00047 * X3 \qquad (7)$$
$$(4.3663) \quad (0.00059)$$

According to the model (7), the poverty level in the country is expected to decrease as the FDI increases. Significant correlation between these two indicators for the Azerbaijani economy shows that the decline in FDI should be necessarily compensated by domestic investment. Otherwise, the poverty level in the country may increase.

5. DISCUSSION

Studies show that rational use of FDI is crucial in reducing poverty. For example, researches conducted by V.Denisia (Denisia V., 2010), T. Sisili, D. Elango (Sisili T, Elango D, 2013) are considered FDI as an important medium for poverty reduction. Studies show that the FDI plays an important role in reducing poverty in Azerbaijan. The effects of FDI on poverty occur in different countries through different mechanisms. This is due to the diversity of areas in which the FDI is directed.

6. CONCLUSION

FDI plays an important role in reducing poverty in Azerbaijan. Since the main part of the FDI in Azerbaijan focuses on the oil and gas sector, the value added generated in this sector allows the country's revenues to be recovered from the Oil Fund and the redistribution through the state budget make it possible for the FDI to be used efficiently. Thus, the fact that FDI is included in the country does not mean that the economic and socio-economic effects of this funding are positive. The positive impact of economic effects of FDI and its rational use depend on the economic conjuncture of each country.

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EVALUATING DEMOGRAPHIC CAPACITY OF TERRITORIES IN REGIONAL SUSTAINABLE DEVELOPMENT PLANS

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ABSTRACT
Demographic potential depends on regional demographic processes and social-economic factors. The related research on 2 economic regions of Azerbaijan had performed taking into account indicators of the demographic potential and defining it impacting factors, already formed processes and indicators such as population number, age and gender groups shares, migration and marriage processes, demographic waves and behavioral characteristics. In framework of mid-term and long-term sustainable development planning predictive models had developed based on multidimensional (involving environmental, social, economic and institutional aspects) approach. Data analysis and models of demographic processes were developed for each administrative rayon. Data analysis and predictions results show demographic potential of each administrative rayon highly depends on its economic development indicators. More important conclusion reflects risk of demographic potential diminishing in future as a result of demographic waves formed in a period of economic crises.
Keywords: *Capacity, Demographic, Development plans, Potential*

1. INTRODUCTION

The complex planning project of the region is such a document that should address complex economic, urban, technical, environmental and social issues and the efficient utilization of existing resources. It is natural that in the settlement of the aforementioned issues, the organization and use of the territory of the region in front of the projectors is a primary problem. The rapid development of modern science and technology, social and economic progress, rapid economic development, the impact of human activity on nature, transport increase, urbanization process, and other factors put new demands on regional planning. The main objective of the regional planning is to provide the optimal conditions for sustainable development of the production, the creation of new settlement systems by improving life conditions of the existing population, provision of inter-community services, environmental, historical and architectural monuments, protection of residential areas from hazardous geological and natural disasters, in order to prepare proposals that will ensure the effective and efficient use of energy and labor resources.

In modern conditions, regional planning is an important document that ensures the efficient deployment of new nationally-owned facilities, as well as a proposal for a sustainable solution to the challenges of nature and the environment, which provides for sustainable development and ecological balance.

2. OBJECTIVES OF PROJECT

- Establishing long-term strategies by assessing trends in sectors such as settlement, agriculture, industry, tourism, transport through national, regional and inter-regional balances;
- Establishing a balance of natural, historical and cultural values, making a comprehensive assessment of the region on the basis of administrative and functional unity, maximizing the use of natural and natural sources of nature;
- creating a regional planning scheme that allows for sustainable socio-economic development, planned development within the boundaries of the region, and the ability to optimize urban living.

3. SCOPE OF WORK

The object of the project is Lankaran - Astara Economic Region, consisting of Astara, Jalilabad, Lerik, Lankaran, Masalli and Yardimli regions. The total area of the economic region is 6,07 thousand square kilometers, and the number of population is 824018 according to the 2009 census.

Design of regional territorial scheme:

- Current situation - 01.01.2010
- 1st stage (first-priority measures) -2018
- 2nd stage (reporting period) - 2030.

The main economic and social indicators for the Lankaran-Astara region's current status are based on January 1, 2010. Thus, in the complex planning project of the Lankaran-Astara region, its natural conditions and resources are estimated, their usage trends, the prospects of development of the region in the economic and social fields are determined on the scientific basis, the areas of development of the national economy are defined, the architectural planning design of the region is defined and functional zones the area is complex, and the future of the population and its settlements, transport and other engineering networks are being developed, environmental and historical monuments are protected and restored, and the cultural and community service is provided to the population. The study of the current situation of the region requires the comparison of development trends, naturalized project indicators and living conditions learned by population surveys with generalized project, statistical, plan, economic, geographical, historical and other relevant materials.

4. TERMS AND METHODOLOGY OF POPULATION FORECASTING

Predictability of the population is based on the results of the demographic potential assessment presented in the previous sections and the scenario selected for the socio-economic development of the area. This is based on the demographic and employment policies of the state, the optimal growth of population and full employment. In the forecast, the reforms in all areas of the country's economy, construction of infrastructure facilities, improvement of cities and settlements, issuance of preferential loans for development of state-owned enterprises for businessmen, creation of new jobs in the region and villages, social and economic well-being of the population and improvement of living standards of families were taking.

The following trends of designing a demographic forecast should be taken into account:

1. The population growth rate in the region is relatively high compared to the national average. Thus, while the population growth in Azerbaijan in 1990-2010 was 26.2%, the increase in the Lankaran economic region was 35.7%

2. While the average annual growth rate of the population living in the economic region declined by about 1 point in 1991-2011, compared to the indicator of Azerbaijan (1.21% in 1991 and average 1.18% in 1991-2009) 0.4 points higher. This figure was 2.53% in 1991 and an average annual increase of 1.55% in 1991-2009. The tendency to be considered important is the sharp decline in population growth in rural areas. In 1991, the Lankaran economic region was 3.12%, in 2009 it was 1.58% and fell twice. In all regions of the region, the growth rate of the rural population has dropped twice compared to the last two decades (3-5% per year).

3. Analysis of demographic data shows that at the beginning of 2010 the overall coefficient of birth and natural increase in the whole population of the region was higher than the average national level and the overall mortality rate was low. Thus, while the average natural growth rate in the country was only 11.3, this figure was 14.8 in the region. In most regions the overall coefficient of birth and natural increase is higher than in the average country and the average mortality rate is closer to the country's indicators. Although the lowest level among the administrative regions in the region is in the Lankaran region, the natural growth rates are higher than the average national level.

4. The dynamics of the rural and urban population of the region show that although urban populations are growing, the urbanization rate is lower than in 1990 (25.4%). At the same time, the decline of the urban population's share of the population since 1999-2002 is gradually compensated and this figure reached 25.0% in 2008-2011. This indicator is almost 2 times lower than the country's urbanization level.

5. Population's demographic behavior consists of basic components such as reproductive, migration and self-protection. Analysis of the population growth in the region shows that the birth rate of women is smaller than the number of male births. Thus, in 2010 54,6% of the total number of born children were born in the region, and 45,4% were girls. This indicator is lower than in some administrative regions . For example, girls born in Lankaran region accounte d for 44.9 percent of the total number of births, 46.0 percent in Masalli, 45.6 percent in Jalilabad, 44.7 percent in Yardimli and 45.3 percent in Lerik region. In the world practice, based on the legitimacy of the fall of 98 girls per 100 births, there is no doubt that the level of this indicator will cause the breach of intercourse balance during the prognosis.

While determining the forecasting methodology, the component, Cohort method has the potential to consider the above conditions and trends. analyze of other methodologies - Objective consideration of the trends in forecasting and balancing on the basis of mathematical-statistical equilibrium extrapolation, and the format required for planning socio-economic development of the region (gender and age groups, urban and rural areas long-term perspective) does not allow the demographic forecast to be drawn up. Therefore, a forecast model for each year of the predicted period was developed in the distribution of sex, urban and rural areas for 5-year age groups of each region for predicting the population. Mathematical-statistical equations, based on the data for 1970-2010, were used to substantiate the level of different parameters of the model.

5. THE RESULTS OF POPULATION FORECASTING

The following three scenarios were performed on the method of demographic projection (Cohort) method of Lankaran economic region:

1. Pessimistic scenario - forecast based on low natural growth ratios in the economic region;
2. Basic scenario - a structural forecast, taking into account the observed natural growth trends and demographic waves in the economic region;
3. optimistic scenario - 10% of the structural prognosis, which predicts birth and infant mortality rates compared to the main scenario.

The results of the calculations are given in the table below:

Table 1: Number of Population at the end of the year

Years			
	Pessimistic Scenario	Basic Scenario	Optimistic Scenario
2009	833865	837254	837304
2018	936522	979400	993361
2030	1006233	1105693	1144452

Source: author's calculations based on 2009 year census and modelling

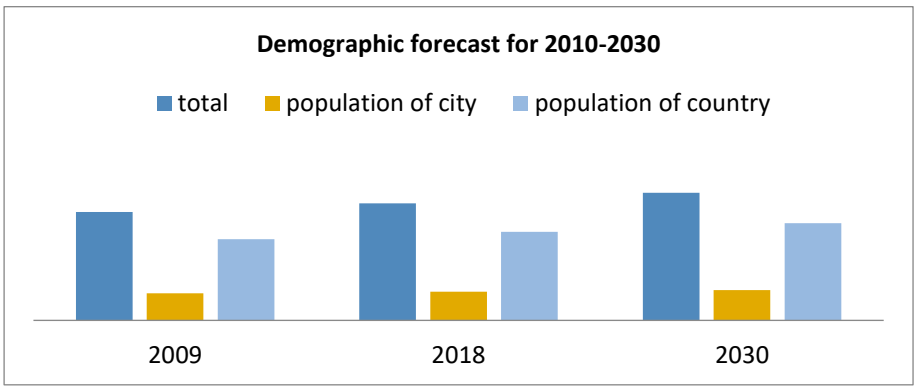
The results of the calculation of the population growth forecast for each of the three scenario were assessed and the number of population was estimated at 1105.7 thousand by the reporting year (2030). The structural elements of the forecast on the main scenario are as follows.

5.1. Number of population at the end of the year

Table 2: Number of population at the end of the year

	2009		2018	2030
	To the census date	To the end of the year		
Total	824018	837254	979400	1105693
Men	409659	416745	493038	561555
Women	414359	420509	486361	544138
Urban population	205702	208728	241991	260175
Men	101721	103145	118636	126296
Women	103981	105583	123355	133879
Rural population	618316	628526	737409	845518
Men	307938	313600	374403	435259
Women	310378	314926	363006	410259

Figure 1: Demographic forecast for 2010-2030

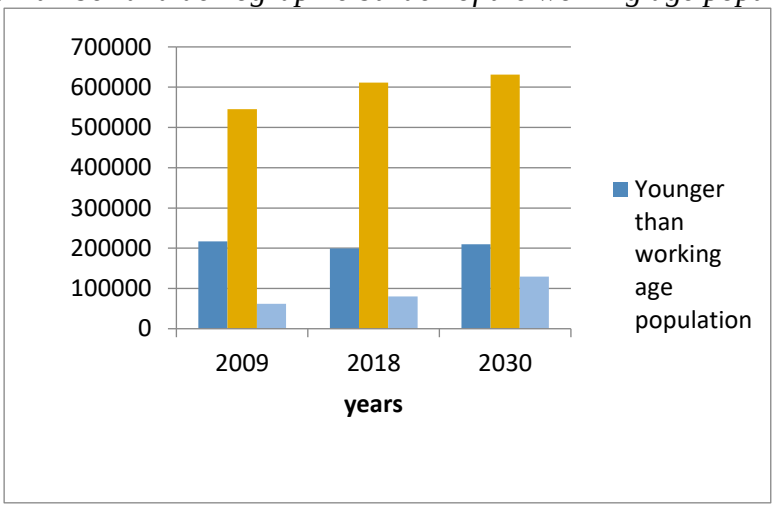


5.2. Number and demographic burden of the working age population

Table 3: Number and demographic burden of the working age population

	2009		2018	2030
	To the census date	To the end of the year		
Younger than working age population	216802	213619	231166	208409
Working age population	545325	557491	650308	721669
Older than working age population	61891	66143	97925	175615
Demographic burden of the working age population	51,1%	50,2%	50,6%	53,2%
Younger than working age population	39,8%	38,3%	35,5%	28,9%
Older than working age population	11,3%	11,9%	15,1%	24,3%

Figure 2: Number and demographic burden of the working age population



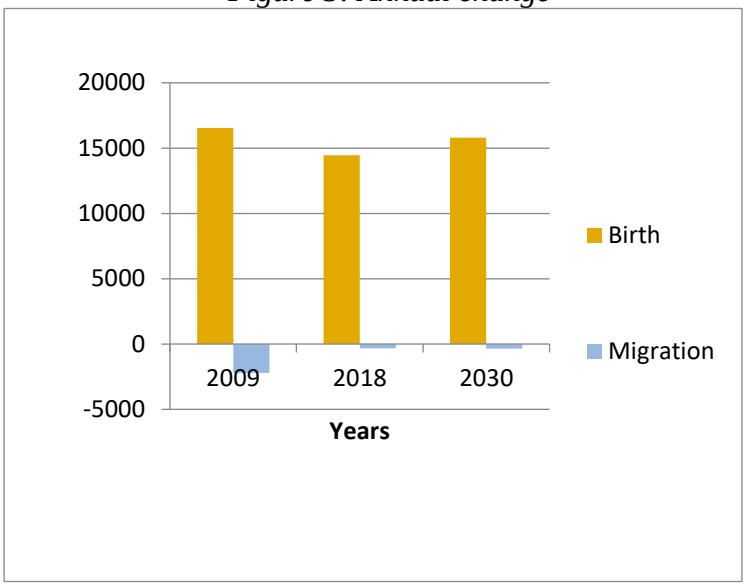
5.3. Annual change

Table 4: Annual change

	2009	2018	2030
Total	13236	13606	8174
Men	7086	7342	4466
Women	6150	6264	3708
Urban population	3026	2540	723
Men	1424	1150	244
Women	1602	1390	479
Rural population	10210	11067	7451
Men	5662	6192	4222
women	4548	4875	3229

Figure following on the next page

Figure 3: Annual change

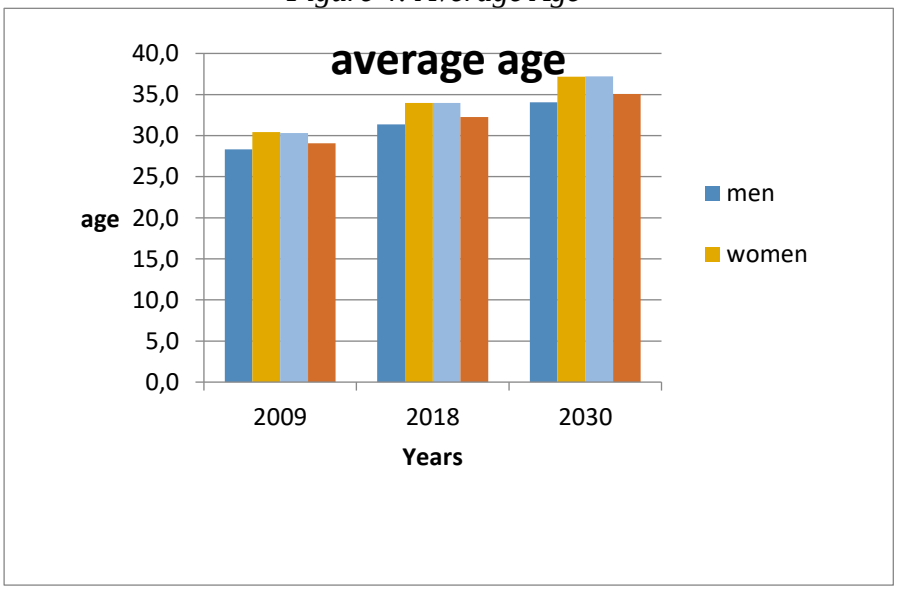


5.4. Average Age

Table 5: Average Age

	2009	2018	2030
On the Economic Region	29,9	33,5	38,7
Men	28,8	32,2	37,2
Women	31,0	34,8	40,2
Urban population	30,8	33,8	38,9
Men	29,9	33,0	38,2
Women	31,8	34,5	39,6
Rural population	29,6	33,4	38,6
Men	28,5	31,9	37,0
Women	30,7	34,8	40,3

Figure 4: Average Age



5.5. Birth

Table 6: Birth

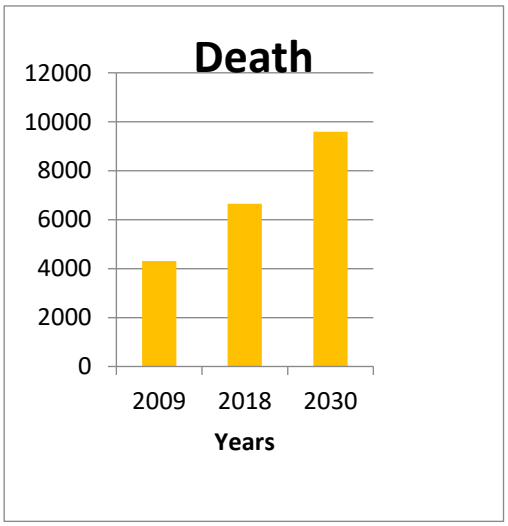
	2009	2018	2030
Total	13311	15768	12533
Men	7247	8611	6882
Women	6064	7157	5651
Urban population	3265	3527	2312
Men	1588	1716	1125
Women	1676	1811	1187
Rural population	10047	12242	10221
Men	5659	6895	5757
Women	4388	5346	4464

5.6. Death

Table 7: Death

	2009	2018	2030
Total	2560	5106	7801
Men	1398	2750	4164
Women	1162	2356	3637
Urban population	839	1700	2411
Men	463	917	1283
Women	376	783	1128
Rural population	1721	3405	5390
Men	935	1833	2881
Women	786	1573	2509

Figure 5: Death



5.7. Migration

Table 8: Migration

	2009	2018	2030
Total	2505	2986	3442
Men	1248	1504	1749
Women	1257	1482	1693
Urban population	605	731	823
Men	301	361	404
Women	304	370	420
Rural population	1900	2255	2619
Men	947	1143	1345
Women	954	1112	1274

5.8. Number of women in reproductive age

Table 9: Number of women in reproductive age

Number of women in reproductive age	244054	261229	272068
City	60459	64014	68063
Village	183595	197215	204006
City 20-24	8787	9882	9661
City 25-29	9832	9664	9564
Total City 20-29	18619	19546	19225
village 20-24	27944	31272	28579
village 25-29	31646	30047	27285
Total village 20-29	59590	61319	55864

Source: Author's calculations based on model on Cohort method

6. THE USE OF DEMOGRAPHIC FORECAST

Perspective calculations require the following parities:

- Number of working-age and economically active population;
- The economically active population should take into account the defined minimum consumption norms and at the same time, the higher earnings;
- The balance of land, in particular agricultural and useful land, should be considered;
- Water - the need for drinking and irrigation water should be met;
- Energy - The need for electrical energy should be taken into account and at the same time the need to use alternative energy sources;
- Raw materials - Indicators of industrial areas using local r aw materials should take into account the availability and raw materials.

One of important results of forecasting is defined as demogrphic waves to be occured after 2024 years as a consequence of economic crisis of 1990-s years. Number of women in reproductive age will be less than number of men. Accordingly, disparity between male and female will led to birth rate reduction.

Table 10: Economic growth and employment in the Lankaran economic region until 2030 year

Clusters	**Investment until 2018, thousand manats**		**Investment until 2030, thousand manats**		**Work places**		**Cost of products, mln AZN**		**VAT, mln AZN**	
	New Construction	**Modernization**	**New Construction**	**Modernization**	**2018**	**2030**	**2018**	**2030**	**2018**	**2030**
Fishing	804742	0	1149631	0	1990	2843	327	467	219	313
Techno Parks	218264	0	602106	0	7440	20290	236	646	83	226
Forestry	30593	4604	43704	6577	933	1213	28	36	11	15
Construction	45732	11197	152440	37325	358	1192	39	131	14	46
Textile	65360	6218	217868	20726	611	2036	122	406	34	112
Food	59805	89708	199351	299027	618	2060	256	854	73	243
Social	164420	223006	548068	318580	61303	69844	1050	1196	502	572
Education and Science	0	3212	0	10708	87	291	0,09	0,30	0,04	0,15
Agriculture (intensive development scenario)	685491	626357	2730182	2552486	191520	262766	572	1558	302	823
Tourism	259485	38368	864949	127894	3809	12697	73	245	49	165
Total	2333892	1002671	6508298	3373323	268669	375232	2703	5539	1287	2514

Source: Authors' calculations

The proposed investment program allows to increase by about 5.2 times GDP per capita in the region in the period up to 2030. At the same time, it will be possible to achieve full employment in the region and achieve a significant increase in the income of the population.

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ESTIMATION OF THE EDUCATION INFLUENCE ON THE POPULATION INCOME

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ABSTRACT

From the beginning of the 20-th century, forming the knowledge economy, creating the human capital and providing the sustainable development on basis of the development of education arrange the priorities of the economical policy in the advanced countries of the world. Some researchers show that if all other factors are constant and the portion of population having the high education in structure of economically active population grows, it will raise the labour productivities and wages of all workers including the workers having the lower education level too. In this study international research methods have been investigated for the qualitative evaluation of educational system and comparison with the achievements of other countries. Based on world countries data, authors have comparatively analyzed the indicators characterizing the welfare of population such as income and wages influenced by the education. In the study the mode of life of population, including the relationship of between the income of the population and level of their educations have been investigated through the econometric modelling. Models have been realized by means of Eviews Software on based of data for the years 1996-2017.

Keywords: *education, income, mean years of schooling, sustainable development, wages*

1. INTRODUCTION

In accordance with conception of "Human development and its measurement" emerged in the ending of XX century, it is not allowed to characterize the economic development only like as the increase in a wealth, increment in investment opportunities and financial resources. According to this theory besides humans are the means of economic progress, they are the final aim as well. If we say in other word, for living longer and healthy the purpose of development should be arranged by creating the suitable environment, providing with personal freedom and social protection, improving material and moral welfare of people. A lot of research shows that, the main reason of differences between poor countries and rich countries are based on human capital deficiencies and irrational utilisation, but not based on physical capital deficiencies. Nevertheless some countries are not able to mobilize the adequate resources for development of the education and its role in developing the society is accepted unconditionally by them. Because besides the education is an important term in forming the economic growth and national wealth, in its turn it creates the human capital.

2. SOCIAL ECONOMIC IMPORTANCE OF EDUCATION

Education is a process of transmitting the competences and skills being an important for the practical activity. According to the international definition defined by UNESCO, the education is a process of improving the skills and behaviours for intellectual maturity and personal development. As it seems the definition of education doesn`t imply only formal education, i.e. teaching process at the schools and universities. The education is characterized as a stable and varied learning process. American public man and philosopher John Dewey noted in its publishing work named as "Democracy and education" in 1916 that education, in its broad sense is the means of continuity of social life. The primary ineluctable facts of the birth and death of each one of the constituent members in a social group determine the necessity of education. With the growth of civilization, the gap between the original capacities of the immature and the standards and customs of the elders increases. Mere physical growing up, mere mastery of the bare necessities of subsistence will not suffice to reproduce the life of the group. Education, and education alone, spans the gap (Dewey, 2004, pp. 2-3). Dewey's Democracy and Education shows how education can be used as a tool to transform not just the self but also the society. Here, Dewey outlines the importance of education in how we deal with the world in general (Mancenido-Bolanos, 2016, p. 85). Besides transmitting the scientific knowledge to the young generation, the education forms intellectual potential of society and state. The education provides the development of person and forms the cognitive interests and thinking and provides the preparation to the labour and social life. The positive effects of education are already accepted in fact. The education of any person has an advantage not only for himself/herself, but also the other ones with who are working and living together. There is some studies show that if the other factors stay a constant and a portion of persons having higher education grows then it will increase the productivities and wages of all employees including the employees with the level of lower education. Empiric investigations give evidence of the strong positive correlation both the between the education of parents and their heaths and between the education of parents and their children`s health. The children and infant mortality rate among the parents having higher literacy is less than that parents having lower literacy. A lot of research fulfilled by World Bank in different countries made known that there is a positive correlation between the education and democracy. So, training and teaching process provides the development of social development and strengthens the efforts in defence of people`s freedom of speech and the potential of participation in the activities of democratic institutes.

3. HUMAN CAPITAL AND COMMON WEALTH

The definition of "Human capital" is related with the name of American economist and scientist Theodore Schultz. In his studies dedicated to analyses of causes and factors of increasing the labour productivity he has characterized the human capital like as aggregate of work abilities attained and improved by humans. As to his thinking, the education transforms the human from the simple employee to the creative one. Besides the direct education expenditures of secondary and higher education, he estimated the capital investments in self training, increasing the experience in the work and as well as health, education and scientific fields as an investment in human capital (Schultz T.W., 1961). Gary Becker who had a significant contribution to the enhancement of conception of human capital in his fundamental work named as "Human Capital" pointed out that the investments in human capital not only involves the education expenditures and also the expenditures related with health and bringing up children, i.e. any expenditures raising the human`s productive force. In generally the definition of a human capital is accepted as an aggregate of skills, knowledge and social attributes, as well as individual characteristics like as creative imagination concentrated in human in the purpose of creating the economic value. The more human`s skills make the capital made by him/her become more valuable, it means that income on the such capital (salary) must be higher.

In the developed countries capital investments in human capital are admitted as the most effective expenditures for society which quickly covering itself on account of returns. Human capital is considered as one of the factors strengthening the economic potential and the economic growth in generally. In this type of approach the development is not only measured through increasing the economic growth rate, but also through human capital investment and reduction of poverty (Becker G.S., 2009).For a long time, economists have been considering the physical capital as a main part of the wealth. The results of the research fulfilled in 1995 on 192 countries by World Bank show that 24% of aggregate wealth in the world estimated in the amount of 689 trillion was physical capital; 69% of the amount was human capital (Table 1). The appropriate analyses have been carried out by 141 countries in 2018. In accordance with this analysis the common wealth in the world increased by 66% and has reached to 1143 trillion dollars in 2014 compared with 1995 (an average annual growth rate was 2.7 percent).

Table 1: Global Wealth, by type of asset, 1995 and 2014
(The changing wealth of nations reports, World Bank 2018, pp.47).

	1995		*2014*	
	Trillion, US$	*Percent*	*Trillion, US$*	*Percent*
Produced capital	*164,8*	*24*	*303,5*	*27*
Natural capital	*52,5*	*8*	*107,4*	*9*
Human capital	*475,6*	*69*	*736,8*	*64*
Net foreign assets	*-2,9*	*<1*	*-4,6*	*<1*
Total wealth	*689,9*	*100*	*1143,3*	*100*

The human capital assumes the prevailing special weight in the structure of common wealth. Human capital wealth is defined as the discounted value of future earnings for a country's labour force. In other words, human capital wealth is considered to be an asset that generates a stream of future economic benefits (earnings) (World Bank, 2018, pp.47). The volume of human capital amounted to 737 trillion in year 1995, but its portion in common wealth was equal to 69%. Human capital volume increased by 55% compared with year 1995 and its portion in common wealth decreased up to 64%. Its average annual growth rate was 2.3 percent. Based on estimation of World Bank, after the year 2000 this decline in the share of human capital wealth was entirely due to upper-middle and high-income OECD countries, which together account for more than 80 percent of global wealth as well as most human capital wealth (The changing wealth of nations reports, World Bank 2018, pp.46). The volume of common wealth per capita amounted to 128929 dollars in 1995 (Table 2). This indicator increased by 30.7% and has reached to 168580 dollars in 2014 compared with the year 1995 (an average annual growth rate was 1.42 percent). In comparison with the year 1995 the human capital per capita increased by 22.2% in 2014 and has reached to 108874 dollars. In 1995 the human capital per capita was 88874 dollars and the average annual growth rate during the previous year was 1.06%. As it is shown from the table human capital consists of 2/3 part of the common wealth per capita. So, the special weight of human capital in the human capital per capita was 68.9% in 1995, but 64.4% in 2014. The scale of economy and development trends, national-mental values, resource opportunities, joint markets as well as the comparisons of countries having higher indicators in the fields of education with Azerbaijan have been given in the below table.

Table following on the next page

Table 2: Trends in wealth per capital, 1995-2014
(The changing wealth of nations reports, World Bank 2018, pp.123)

	1995	*2000*	*2005*	*2010*	*2014*	*Annual growth*
Total wealth per capita (US$)	*128,929*	*138,064*	*145,891*	*158,363*	*168,580*	*1.42%*
Human capital per capita (US$)	*88,874*	*96,478*	*97,707*	*102,170*	*108,654*	*1.06%*
Human capital as share of total (%)	*69*	*70*	*67*	*65*	*64*	

The common wealth of Azerbaijan has been estimated as 813.7 milliard dollars and special weight of human capital was equalled to 14%. The common wealth per capita has been estimated 85341 dollars, but human capital volume 11961 dollars. Overall, estimates of human capital wealth per capita are closely correlated with GDP per capita. Building on the underlying growth theory, previous issues of the Changing Wealth of Nations reports measured total wealth as the present value of consumption in the national accounts. Since consumption typically accounts for 80 percent of GDP in many countries, this led to an almost perfect correlation between wealth estimates and GDP, whether in aggregate levels or per capita. Rankings of countries according to their total wealth per capita and their GDP per capita were therefore almost identical (The changing wealth of nations reports, World Bank 2018, pp. 131).

Table 3: Total wealth and human capital, 2014
(The changing wealth of nations reports, World Bank 2018, pp.123)

	Total wealth	*Human capital*		*Total wealth*	*Human capital*
	Billion, US$	*Billion, US$*	*Human capital as share of total (%)*	*per capita (US$)*	*per capita (US$)*
Russian Federation	*2714,1*	*1306,1*	*48.1*	*188,715*	*90,812*
Kazakhstan	*3127,8*	*1324,6*	*42.4*	*180,911*	*76,617*
Azerbaijan	***813,7***	***114,1***	***14***	***85,341***	***11,961***
Turkmenistan	*779,3*	*252,2*	*32.4*	*146,831*	*47,510*
Ukraine	*2536,5*	*857,6*	*33.8*	*56,053*	*18,952*
Turkey	*3565,9*	*936,6*	*26.3*	*45,998*	*12,081*
Georgia	*165,2*	*79,2*	*47.9*	*44,327*	*21,251*

3.1. Estimating the levels of education on the labour resources and employment

The education provides the young to become the active citizens and preparation of specialists raising their opportunity of finding the jobs. The results of the selective survey "On economic activity of population" conducted in our country with the technical support of International Labour Organization (ILO) show that the number of labour resources in 2017 was 7221.6 thousand persons. As it is shown in the table that 15.3% of labour resources were specialists with higher education, but 11.3% were specialists with secondary education and 5.2% - with primary vocational. There is an extreme supply of the labour forces which have no occupational competences, but full secondary education. So, 68.2% of labour resources and 67.4% of total employment do not have the primary vocational education. According to the methodology of International Labour Organization the definition of the economic activity population implies the persons supplying their labours to produce products or services, i.e. the number of employment and unemployment.

The percentage ratio of the number of economic activity population to the number of labour resources reflects the level of economic activity of the population. The level of economic activity of the population in 2017 was 70.3% (Table 4). It is shown from the table that the employment level of labour resources having the education and the primary vocational is higher than other ones. The level of the economic activity among the specialists of higher education is 75.3%, but the employment level is 95.8%. The appropriate indicators among the educated persons having secondary education are 67.1% and 94.2%, but the primary vocational education 74.3% and 93.4% accordingly.

Table 4: The main characteristics of labour market of Azerbaijan on the levels of education, 2017 (The State Statistical Committee of the Republic of Azerbaijan: Labour market (2018) Retrieved 08.12.2018 from https://www.stat.gov.az/source/labour/?lang=en)

	Total	*High*	*Secondary education*	*Primary vocational*	*Upper secondary*	*Lower secondary*	*Primary*	*No schooling*
		Share	*of labor force, by educational attainment*					
Persons,								
thousands	*7221,6*	*1104,9*	*816,2*	*375,7*	*3874,8*	*876,9*	*162,4*	*10,7*
Percent	*100*	*15,3*	*11,3*	*5,2*	*53,7*	*12,1*	*2,25*	*0,15*
		Share	*of employment, by educational attainment*					
Persons,								
thousands	*4822,1*	*796,9*	*516,4*	*260,5*	*2892,6*	*306,6*	*49,0*	-
Percent	*100*	*16,5*	*10,7*	*5,4*	*60*	*6,4*	*1*	
		Share	*of unemployment, by educational attainment*					
Persons,								
thousands	*251,7*	*35,2*	*31,6*	*18,5*	*131,4*	*33,3*	*1,7*	-
Percent	*100*	*14,0*	*12,6*	*7,4*	*52,2*	*13,2*	*0,7*	-
			Economic activity and inactivity rate (%)					
Economic								
activity rate	*70.3*	*75.3*	*67.1*	*74.3*	*78*	*38.8*	*31.2*	-
Economic								
inactivity rate	*29.7*	*24.7*	*32.9*	*25.7*	*22*	*61.2*	*68.8*	*100*
Employment								
rate	*95*	*95.8*	*94.2*	*93.4*	*95.7*	*90.2*	*96.6*	-
Unemployment								
rate	*5*	*4.2*	*5.8*	*6.6*	*4.3*	*9.8*	*3.4*	-

The probability of employment on the labour resources having lower education level is low, but probability of economic inactivity and unemployment is high. The economic inactivity means the able-bodied population not willing to work, not seeking the job and aged 15 Years old and over. Labour resources of this group are not involved in working activity and because they are not active participants of the labour market. The level of economic inactivity is defined as the percentage ratio of the number of economic inactivity population to the number of labour resources. The conducting analyses show that the level of the economic inactivity among the educated persons with lower secondary education is 61.2%, among the persons with primary education 68.8%, but among the persons with no schooling is 100%. The persons with the level of lower secondary have the highest unemployment indicator - 9.8%. It predicates that the quality of the secondary education is low. Having no vocational competences and high educations are causes for working of this group of employees in the workplace with lower income besides decreasing the job finding opportunities sharply. The conducted analyses show that one of the main contradictions of labour market is that 16.5% of total employments have a

higher education. It is explained by the low levelled ratio of coverage with high education - 23%. Note that nevertheless average coverage ratio of higher education in the world in 1955 was 2.1%; it increased up to 32.9% in 2017. At present in the developed countries this indicator was 74%. (Muradov, 2017, pp. 13.) Increasing the demand for higher education in the world and being a mass character are explained by creating new knowledge and accelerating the application processes besides this level of education provides the preparation of specialized specialist. The mass character of higher education and its availability provide the transmissions of scientific- technological innovations to the country besides increasing the provision of highly qualified personnel. In the purpose of increasing the number of highly qualified personnel since 1950 in U.S. higher education was relatively open and forgiving. Students who did not do well enough in high school to enter a university could go to a community college and then transfer to a better institution. The institutions of higher education were geographically close to the people, enabling even rural families to send their children to college. The outcome was that sometime in the twentieth century American colleges and universities became the finest in the world (Goldin, 2016, p.18).

3.2. The relationship between the education and populations income

There is a mutual relationship between the population`s income and the level of education. Besides raising the labour productivity, the education is an investment object enabling the increase of the population`s income. In economic theory, the relationship between education acquisition and income is traditionally embedded within the human capital approach (Becker, 1964; Schultz, 1963; Mincer, 1958). The acquisition of education, synonymous with 'investment in human capital', increases the productivity of people, which converts into higher earnings. In turn, workers earn less because they are less productive, being deficient in human capital. Thus, following the logic of this model, being poor (in terms of income) and illiterate (poorly educated) are synonymous (Botezat, 2016). Increase or decrease in the population`s income impacts directly to the volume and structure of expenditures assigning to the human capital of families. If incomes are an adequate to meet the necessary requirements of the families (foods and non-foods), then they are just interested in assigning of a part of their incomes to human capital. In its turn it impacts positively on improving the mode of life, forming the intellectual potential and increasing the role of science and education in the economic growth. The fulfilled analysis shows that in comparison with 2005 in 2017 the annual population income increased by 6.1 times and has reached to 49.2 milliard manats. The appropriate growth in real incomes of population has been observed in previous periods and equalled to 39.8 milliard manats in 2017. In the purpose of increasing the wages and social aids, the government has realized large scaled investment programmes and institutional reforms by using the receiving higher incomes from oil sector. Just distribution of oil incomes through the state transfers programs has caused the increase in the population incomes and improvement of the welfare of majority of population. Consequently, the annual nominal incomes per capita increased by 5.2 times and reached to 5011 manats, but real incomes increased by 5.3 times and reached to 4062 manats in 2017 compared to 2005 (Figure 1). The selective research of budgets of households shows that no schooling is one of the factors defining the decrease in family incomes. So, the head of the families having the better level of education have the higher income levels (Figure 2). In the Figure the incomes per capita in the families of head of families having no schooling have been compared with head of families having higher education. While decreasing the levels of education, i.e. the intellectual levels of the head of the families, in that case their incomes decrease too. The incomes per capita of households with the head of families having higher education are greater than that ones who having no schooling by 17.7%. The appropriate indicator is 6.9% in the families having the secondary and primary vocational education.

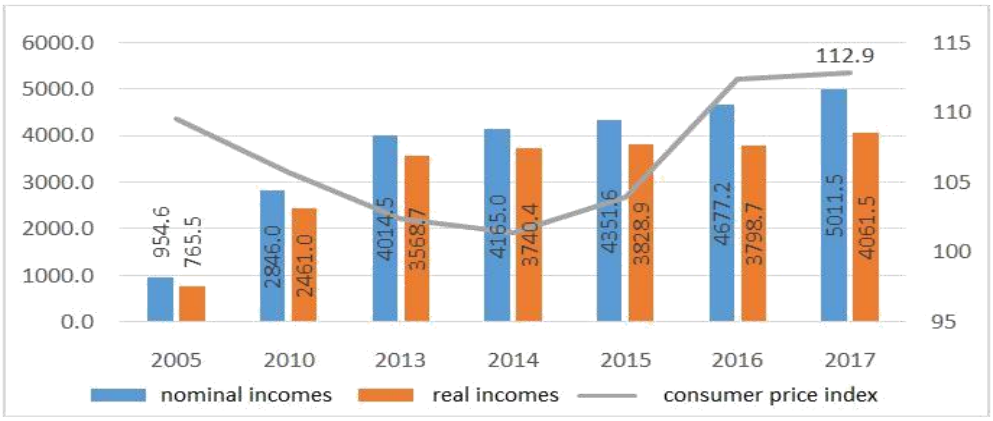


Figure 1: Populations incomes per capita (manats) and consumer price index (The State Statistical Committee of the Republic of Azerbaijan: Demoqraphy, 2018. Retrieved 08.12.2018 from https://www.stat.gov.az/source/demoqraphy/ , The State Statistical Committee of the Republic of Azerbaijan: System of national accounts and balance of payments, 2018. Retrieved 08.12.2018 from https://www.stat.gov.az/source/system_nat_accounts/)

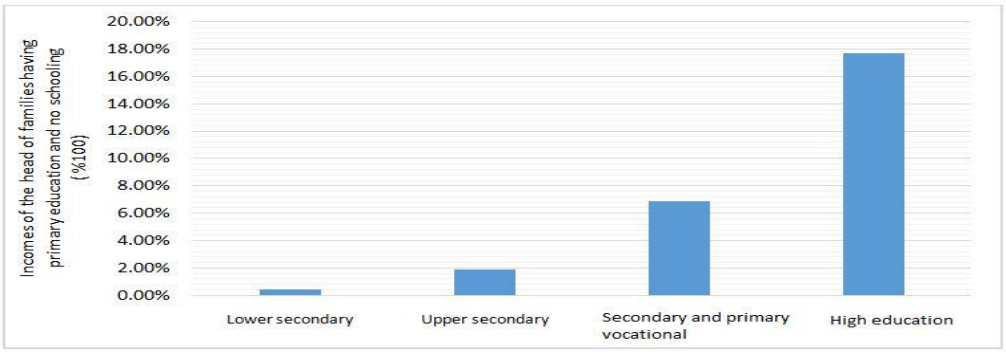


Figure 2: The relationship between the level of the education and incomes (The State Statistical Committee of the Republic of Azerbaijan: Budget of households. Retrieved 08.12.2018 from https://www.stat.gov.az/source/budget_households/?lang=en)

Although the special weight of persons with the upper secondary education in the total employments over the country is high i.e. 60% (see: Table 4), we have to note regretfully that the special weight of self employed persons prevail among these employees. The selective research of households shows that greater than 45% of monthly incomes of the head of families having the general and incomplete secondary educations are obtaining the incomes from the self-employments and agricultural sectors. The self-employed persons in the country are doing its activity mostly in the agricultural and trade sector. The employments of population in the agricultural sector are constrained by natural economy, i.e. the employment enables the persons to meet the daily requirements rather than earning the additional income. The higher level of the education doesn`t give guarantee for providing the economic growth and improving the welfare of the population. So, the indicators reflecting the economic development and welfare in any country may be lower than the neighbouring country having the lower level of education than that one wherein located in the same region. It may be explained by some factors:

1. Inefficient usage of human capital (for example: employment of higher education and highly qualified specialists in the places aren`t needed for such knowledge and skills);
2. Irrationality of investments in education and human capital (for example, personnel preparation without considering the demands of labour market and perspective development trends);

3. Low quality of the education (for example, corresponding the knowledge and competences obtained in the process of trainning with the requirements of the markets, preparation of personnel based on old programmes and materials);

3.3. Econometric estimation of the dependence of population incomes on the level of education

The below mentioned table enables us to compare the average annually and monthly income and wages per capita, as well as indicators characterizing the education. As it seem that the economically developped countries among 18 countries shown in the table the level of education and population` income are higher.

Table 5: Incomes per capita, wages and education index, US dollar, 2017 (World Data.info: Average income around the world, 2015. Retrieved 11.12.2018 from https://www.worlddata.info/average-income.php , Human Development Report: Education index, 2018. Retrieved 11.12.2018 from http://hdr.undp.org/en/content/education-index , OECD.Stat: Average annual wages, 2018. Retrieved 11.12.2018 from https://stats.oecd.org/Index.aspx?DataSetCode=AV_AN_WAGE)

	Average annual wages	*Average monthly salary*	*Average income annually,*	*Average income monthly*	*Education index*	*Mean years of scooling*
Germany	*44466*	*3706*	*43490*	*3624*	*0,940*	*14.1*
Australia	*61620*	*5135*	*51360*	*4280*	*0,929*	*12.9*
Denmark	*65674*	*5473*	*55220*	*4602*	*0,920*	*12.6*
İreland	*53112*	*4426*	*55290*	*4608*	*0.918*	*12.5*
New Zealand	*46917*	*3910*	*38970*	*3248*	*0.917*	*12.5*
Norway	*65786*	*5482*	*75990*	*6333*	*0,915*	*12.6*
United Kingdom	*45280*	*3773*	*40530*	*3378*	*0,914*	*12.9*
Iceland	*90662*	*7555*	*60830*	*5069*	*0.912*	*12.4*
Netherlands	*52705*	*4392*	*46,180*	*3848*	*0.906*	*12.2*
Finland	*46772*	*3898*	*44580*	*3715*	*0,905*	*12.4*
Sweden	*47783*	*3982*	*52590*	*4383*	*0,904*	*12.4*
United States	*60558*	*5047*	*58270*	*4856*	*0,903*	*13.4*
Russian	-	-	*9230*	*769*	*0.832*	*12*
Kazakhstan	-	-	*7890*	*658*	*0.814*	*11.8*
Ukrain	-	-	*2390*	*199*	*0.794*	*11.3*
İran	-	-	*5400*	*450*	*0.741*	*9.8*
Azerbaijan	***3684***	*307*	***2947***	*246*	***0.709***	***10.7***
Turkey	-	-	*10930*	*911*	*0.689*	***8***

Note that, since 1990 the education index have being computed on the based of database of UNESCO Statistics Institute by UN Development Programme. The education index means a mathematical mean of subindices of Expected Years of Schooling Index and Mean Years of Schooling. Expected Years of Schooling Index is calcualted on basis of schooling years along the life of a child reaching to official schooling age. But Mean Years of Schooling Index means the average time spending to the education by citizens aged 25 Years old and over along the life. The required time by the law for calculating the each level of education is taken as the basis. A lot of research carried out UN Development Programme shows that there is a strong dependence between population`s incomes and Mean Years of Schooling.

4. ECONOMETRIC ESTIMATION OF THE IMPACT OF MEAN YEARS OF SCHOOLING TO THE GDP: OPTIMAL MEAN EDUCATION YEAR

It is shown from the table 5 that the countries having a longer mean years of schooling as a rule population incomes become higher too. But it doesn`t mean that mechanically increasing the mean schooling years will increase the income as well. Firstly, besides the increasing the mass character of coverage of mean schooling, it is important to increase the quality of the education. For instance, though mean years of schooling is 11, but this one for people aged 25 and over is 10.7. It means that it was not possible to involve the whole population in schooling. On other side raising the years of schooling may vainly increase the expenses of the state and population as well. How long should be Mean Years of Schooling for a maximum effect in Azerbaijan?
In order to answer this question the below mentioned regression has been estimated econometrically. By considering GDP per capita as one the main indicator of development, the GDP based on purchasing-power-parity (ppp) per capita have been taken as the result indicator in the model.

LOG(GDP_PPP) = 1.67502*MYS - 0.07185*MYS^2 + AR(1) = 0.90544 UNCOND] (1)
(s.e) (0.084503) (0.008166) (0.180716)

R-squared=0.866538, Adjusted R-squared=0.799807.

Here, LOG(GDP_PPP) – GDP based on purchasing-power-parity (ppp) per capita, MYS – mean years of schooling, (s.e) – standard errors of parameters, R-squared – determination coefficient, Adjusted R-squared – shows the determination coefficient being defined more precisely. In order to provide the adequacy of the model first order autoregressive AR(1) factor have been included in the model. The main characteristics of Model (1) and other appropriate tests having been realized through Eviews 9 evidences that the model is an adequate. As it seems from the regression that the impact of MYS factor on GDP_PPP is in the shape of a parabolic and arms of the graphic are down (as the coefficient of MYS^2 is negative). Therefore there is such level that where GDP_PPP reachs a maximum. It is known us from mathematical anaysis that this level is the point, where the first derivative equals zero.

1.67501735129 -2*0.071849983714*MYS=0 (2)

If we solve the equation (2) then we will get MYS =11.65634656. It gives a sense that if mean years of schooling for aged 25 and over in Azerbaijan is about 11.7 years, then GDP per capita reaches a maximum. Consider that nowadays the schooling years is 11, mean years of schooling for aged 25 and over is 10.7 years, while switching the secondary school to 12-year educational system then GDP level will be maximum on this factor.

5. CONSLUSION

Hence the research evidences that the distribution of oil incomes through the state transfers programs has caused the increase in the population nominal and real incomes and improvement of their welfare. The analysis of social-economic indicators shows that there is an extreme supply of the labour forces who have no occupational competences, but full secondary education. So, the major part of the labour resources and employements has not got vocational - qualification training. Besides decreasing their job finding opportunities, it is a cause for working of this group of employees in the workplace with lower income. The selective research of budgets of households shows that not having an education is one of the factors defining the decrease in family incomes. So, there is a strong dependence between population`s incomes and the level of education. The household having better-educated head of family have the higher income.

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ADVANCING TOWARDS SUSTAINABLE ECONOMIES: EXAMINING RESIDENT ATTITUDES & PERCEPTIONS TOWARDS SUSTAINABLE TOURISM DEVELOPMENT IN QATAR

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ABSTRACT

Tourism is essential to advancing economies and is better achieved through the three pillars of sustainability due to its positive consequences and is able to implement actions that directly affect residents, economies, and environments. Sustainable tourism development in Qatar faces many challenges from lack of tourism planning to a lack of stakeholder involvement, especially involvement from the local stakeholders' side whose importance is highlighted in this paper. Resident awareness, engagement and participation are essential to the success of a sustainable tourism destination, and thus this research focuses on identifying the attitudes and perceptions of residents towards sustainable tourism development in Qatar. The residents' levels of involvement and willingness to be involved in sustainable tourism actions are also identified in this study. The research measures the local's attitude towards tourism in Qatar by examining and analysing local culture, social customs, and resident behaviours. Data derived from 142 residents were used to perform a hierarchical cluster analysis in order to find three clusters based on the residents' perceptions of sustainable tourism destination, willingness to be involved, and socio- demographic factors. Data illustarated that tourism has positive impacts and negative burderns on locals but perceptions are slowly imporving through educational and community involvement methhods that the country focusses on. Data all suggested that annoyances percieved by tourists were solely due to their lack of involvement in the planning process of tourism. The research concludes that for Qatar to develop economically through sustainable tourism, all private and public stakeholders must be involved in order to assure a more successfully long term stable economic development.

Keywords: *Economic Development, Resident Attitudes, Resident Prceptions, Sustainable Tourism, Tourism in Qatar*

1. INTRODUCTION

Tourism development has both the positive and negative influence on resident's social lives and a general influence over their lifestyle (Kim, Uysal, & Sirgy, 2013) as it is residents that experience it and are in direct contact with it (Eaterling, 2004), thus becomes an interaction of their day to day lives. The growth rate of tourism has more than doubled in the past decade. From seeing 525,000 international tourist arrivals in 1995, the number rose up to 1.2 billion in 2016. According to the World Bank Group (2017), 2016 was the seventh consecutive year wherein the tourism sector showed sustained growth, despite global challenges in safety and security. A report by the World Travel & Tourism Council (2017) shows USD 7,613.3 billion (10.2% of GDP) as tourism's total contribution to the 2016 global GDP. In the State of Qatar in particular, tourism has a significant effect on the economy. In 2016, the total contribution of tourism to the Qatari GDP was USD 27.9 billion (World Travel & Tourism Council, 2017). Qatar has implemented a tourism development strategy that aims to boost the industry's contribution to the GDP by 5.2% by 2030 and increase the total contribution to employment by

5.3% (127,000 jobs) from the current 1.8%. The strategy also aims to increase international tourism arrivals to the country to seven million tourists in 2030. These goals have been set with sustainable courses of action to support its implementation (Qatar Tourism Authority, 2014). Tourism is a wide-scale global process of change and development (Page & Connell, 2009) and is essential to advancing the three pillars of sustainability "People, Planet, Profit" (UNWTO, 2017). It is merely impossible to eliminate "Planet and Profit" from most tourism research, however, this research aims to explore the "People", both the tourist visitors and the resident hosts, and understand behavioural patterns of the residents of Qatar in regard to tourism and towards visiting tourists. Understanding local's attitude is essential in order to sustain a long-term success for the tourism industry (Andriotis & Vaughan, 2003). Moreover, the influence and impacts of tourism development on residents have witnessed great attention over the past years (Choi & Sirakaya, 2005; Sinclair-Maragh & Gursoy, 2015; Tosun, 2002, and Weaver & Lawton, 2001). Such studies have indicated the importance of understanding residents' attitudes and is supports the development of the tourism industry. Hence, for a country such as Qatar, a middle eastern country that is now focusing on tourism development in the country, understanding resident behaviours is a must in its long-term success. According to Qatar Tourism Authority, a careful tourism action plan has been set for implementation to enhance the cultural dialogues and experiences of tourists in Qatar (General Secretariat for Development Planning, 2008). The plan to attract and involve tourists is clear, but nothing yet considers the locals in such planning, nor considers their desires in attaining such tourism development. Hence, this research aims to create distinct profiles of residents in Qatar based on their sociodemographic factors and attitudes towards sustainable tourism; and investigate the common perceptions and attitudes of each profile.

2. SUSTAINABLE TOURISM DEVELOPMENT

Tourism development encourages cultural exchange between tourists and local residents (Ursache, 2015), increases leisure attractions and improves infrastructure (Zaidan, 2016), as well as it allows the locals to strengthen and value their cultural identity (Akkawi, 2011), and is a great source of economic benefits and offers job opportunities to the community (Rahman, 2010). The UNWTO (2017) provides specific guidelines for tourism development and suggests that tourism must, 1-sensibly utilise environmental resources that adds value to tourism products, taking into consideration the essential ecological processes and aiding the conservation of natural resources and biodiversity; 2-respect the social and cultural values of a host community; contribute to the bridging of cultures; and conserve built and living heritage; and 3-contribute to alleviating poverty by establishing long-term economic operations which benefit stakeholders by providing stable employment, social services, and income-earning opportunities (UNWTO, 2017). Tourism development plans that consider the residents' attitude towards a particular project before its implemented can be seen more sustainable and successful for the economy as well as the environment of a region (Stylidis, Biran & Szivas, 2014; Almeida-Gracia, 2016). However, most tourism plans are implemented without the recognition of resident's attitude and that is because the key drivers are only establishing those plans depending on the economy (Prayag, Hosany & Odeh, 2013; Stylidis, Biran & Szivas, 2014). Butler (1999) argues that sustainable tourism development is fundamentally good and appropriate for tourism and adopting its principles would somehow reverse the negative effects that have arisen from the development of the tourism sector, which refers to resident attitudes and their percipience towards tourists. The Gulf region and specifically Qatar in recent year realised the importance of sustainable tourism in the long-term development of their countries. The seven Gulf States, with Jordan and Lebanon, are working towards the expansion of power capacity in order to avoid crippling power shortages, which some countries across the region have already been afflicted with.

However, unlike China, Brazil and India, the GCC's focus is towards economic independence from hydrocarbons. (Patel, 2014) For instance, the United Arab Emirates has implemented a national agenda that addresses the following points: air quality improvement, water preservation, clean energy usage, and green growth plans (UAE Prime Minister's Office, 2017). A national key progress indicator has also been formulated in order to measure and control the strategy's implementation. Furthermore, Oman aims for a sustainable economic diversification due to the decline of fishery production, which contributes directly to Oman's economy (Belwal, Belwal, & Al Jabri, 2015). Qatar on the other hand, has implemented a national development plan that highlights sustainability, and rests on the improvement of its four pillars: human, social, economic, and environmental development. (General Secretariat for Development Planning, 2008) The pillars represent challenges in the different fields and aims to address the difficulties in a sustainable manner. The Prime Minister of Qatar stated that country is beginning a phase of sustainable development. The latter relates to the several sustainable projects that the government of Qatar implemented such as the Msheireb Downtown Doha, Lusail City, and several sustainable initiatives that include sustainability weeks organised by the Qatar Green Building Council. The country is implementing sustainable development and actions in a fashion that combines traditional Qatari architecture with modern techniques (Qatar Tourism Authority, 2014). Moreover, some businesses in the tourism industry have started to exploit the marketability of sustainable development. Failing to realise that ignoring the concept of sustainability dilutes the purpose of the whole movement, these businesses have adopted sustainability in name, but not in action. Small to large scale tourist operations have started to adapt sustainability in hopes of attracting the "green" tourist (Higgins-Desbiolles, 2010). However, sustainability is not merely achieved by attracting green tourists, it is instead the behaviour towards such tourists that determines their return, and thus, the success of the industry. Fennell (2008) calls for tourism enterprises to adopt a deep ethical and responsible business processes approach towards tourism rather than a surface approach as there is a need to centralise human beings in the sustainability approach and get them involved in the process which would lead to the positive change in, and development of, the industry. Andreck and Nyaupane (2011) refer to this as the quality of life as it determines the people's and community's behaviours towards tourism.

3. QUALITY OF LIFE

Moscardo (2009) explains the idea of Quality of Life as the concern of understanding people's perceived satisfaction with the circumstances in which they live. The urge to travel is directly associated with Quality of Life, from the perspective of the tourists (Sirgy, 2010), and therefore, tourism is capable of creating potential that contributes to the improvement of the well-being and will improve the Quality of Life of the local community (Andereck, Valentine, Knopf, & Vogt, 2005). The notion of Quality of Life is used to understand the attitude and behaviour of residents influenced by the visitor pressure, and a good understanding of Quality of Life of the host country can assist in creating a clear structure for examining the impact of the visitors (Venter & Kruger, 2017). Understanding Quality of Life can further aid in understanding the emotional, health and spiritual well-being of the people, and creates a positive relationship with family and friends (Pukeliene & Starkauskiene, 2011). However, Quality of Life when addressed appropriately can lead to positive outcomes; but is also negatively impacted by situations undesired by the local community. For instance, the spread of a disease within a community that witnesses no rapid action from the government witnesses a rapid deterioration regarding Quality of Life within the community. Tourism in another example of the latter as tourism can serve unfavorable aspects to the Quality of Life of the community, by causing an increase of traffic congestion, crimes and environmental pollution, as well as leading a higher cost of living (Deccio & Baloglu, 2002).

Thus, no doubt tourism plays a role in the Quality of Life of people and their local communities, however, education, information and involvement of residents and local communities benefits tourism by allowing the local stakeholders to comprehend the kind of tourism that takes place in their community and to what extent it affects them; and thereby allowing them to make informed decisions (Byrd, Bosley, & Dronberger, 2009). Faulkner and Tideswell (1997) suggest that there are intrinsic and extrinsic factors that contribute to resident perceptions. Extrinsic factors such as high development maturity of a destination or a high level of seasonality contributes to the disgruntlement of residents while intrinsic factors such as social benefits or employment in the tourism industry contribute to positive perceptions. Moreover, the level and degree of a resident connection with tourism and specifically tourists has been determined to affect the local's reactions regarding the effect of tourism on their lifestyle and lives of a community as a whole (Sirakaya, Teye & Sonmez, 2002). For instance, various sources have indicated that residents who have jobs in the tourism industry are more likely to have positive attitudes towards tourism than the other residents (Sirakaya, Teye & Sonmez, 2002). Wang and Pfister (2008) pointed out that the greater level of individual benefit from tourism obtained by local residents, the more the citizens would show support for the tourism development. To ensure the success of a sustainable tourism industry, it is essential to get the support of the 'hosts' communities (Ryan, Chaozhi & Zeng, 2011). Thus, the realisation of the importance of local's perception, has changed the perceived idea that the tourism industry has towards the future plans and development of tourism (Tovar & Lockwood, 2008). Tourism development has always been wrongly accused of being the operator of rapid cultural and social change in the society and host communities, which made tourism get little or almost no attention towards the positive aspects that tourism development brings to the social and culture within a community (Sharpley & Telfer, 2002). An example of this is Shaw and Williams' (2002) suggestion that most hosts tend to change their lifestyle due to the constant encounter with the tourists, as their lives get influenced by them, they start to adapt different ways of looking at norms and traditions. Therefore, Quality of Life for the locals changes due to tourist interaction. Such change is perceived as positive change by some, while others see it as negative change that badly impacts on the community and local culture.

4. RESEARCH FINDINGS

Data was collected form a sample of local national residents of Qatar. The sample gather included a total of 144 participants that consisted of 142 participants filling in questionnaires and 2 participants getting interviewed. Based on the findings of the data collected, socio-demographic characteristics of participants were clustered into three cluster profiles which are identified using hierarchical clustering.

Table following on the next page

Cluster 1 – Cynics
Most likely to be male Most likely expats Between the ages of 18-48, but of all three groups most likely to be between 37-48 Most likely to have a high school diploma or a bachelor's degree Most likely married, with children Most likely employed full time
Cluster 2 – Apathetics
Could be either male or female Could be expats or Qataris Between the ages of 18-64, most likely to be 25-36 Majority have a bachelor's degree or an associate degree, Employed full time Most likely married, with no children
Cluster 3 – Supporters
Could be male or female but most are female Could be expats or Qataris Between the ages of 18-64, but most likely to be 18-24 Employed full time, yet most likely of the three groups to be unemployed or students Most likely single Most likely to be students or have obtained a post graduate degree

Table1: resident clusters / sociodemographic profile

Table following on the next page

Cluster 1 – Cynics	Cluster 2 – Apathetics	Cluster 3 – Supporters
Most strongly disagree that tourism in Qatar is sustainable Most have negative perceptions of sustainable tourism development in Qatar. Most are not involved in sustainable tourism activities. Most do not care about tourism in Qatar. Most do not want more tourists in Qatar. Most do not want to be involved with sustainable tourism development projects due to not caring about tourism in Qatar. Most are not aware of Qatar Tourism Authority. Most are on Facebook and Twitter.	Most strongly disagree that tourism in Qatar is sustainable Split between negative and positive perceptions of sustainable tourism development in Qatar Most are involved and work in tourism. Most see the economic contribution of tourism to Qatar's economy. Most do not want to be involved with sustainable tourism development projects due to lack of time and awareness. Most are aware of Qatar Tourism Authority and their social media pages but find their content boring. Most are on Facebook and Instagram.	Most disagree that tourism in Qatar is sustainable Most have a positive perception of sustainable tourism development in Qatar Most are involved in sustainable tourism projects and most participate in environmental campaigns and through social media. Most want to be involved by participating in more environmental campaigns. Most are on Instagram, Snapchat and Twitter.

Table 2: Resident Clusters / Attitudes And Perceptions

The cluster profiles identified show that the group which has the most support for sustainable tourism development projects is also the same group that has been participating in such projects. Studies conducted by Haralambopoulos & Pizam (1996) also found an association between high levels of education and positive perceptions of tourism, thus reflecting the findings of this research. The striking findings of this research was that the majority of respondents, 56.3%, perceiving sustainable tourism in Qatar as negative, and 37.4% remained neutral about it or did not have an opinion. While only 6.3% of the respondents considered perceived sustainable tourism in Qatar at positive. In order to investigate why the majority of the respondents perceive sustainable tourism in Qatar negatively, the respondents were allowed to choose every criterion that they felt justified their choice of perception. The three most selected reasons were the lack of tourism planning, lack of tourism marketing, and lack of infrastructure that supports tourism. Other concerns included the cause of heavy traffic and lack of information about ongoing developments. Although it cannot be denied that most residents in Qatar find tourism unsustainable, the Qatar Tourism Authority (2014) has been taking steps to develop tourism sustainably, and this message needs to be communicated to the residents clearly with educational programmes implemented on various levels. Achieving sustainability in tourism is a continuous process that necessitates continuous monitoring of impacts and innovative problem-solving skills. Sustainable tourism development requires the informed and active participation of all the relevant stakeholders, especially the host community. When locals were asked if they would be happy to meet tourists and welcome them to the city 44.4% of the respondents agreed to do so 36.6% were unhappy about doing this.

This suggests that residents can be welcoming and would do even understand tourists better if educational programmes highlighting the importance of tourists to them were implemented. However, the same participants were also asked if they witnessed interactions between the local residents of the community and tourists, and 62% of the respondents answered 'No'. Respondents have witnessed an increase of tourism into the country over the past few years but believe that such tourists are not interacting with locals. In the context of any other country such findings would be impossible as interactions between local and tourists occur through customer service measures, the host hosts tourists through the services offered and through sales of good. As Qatar is an expat country with over 90% of its residents being non-Qatari, it is impossible to witness Qatari residents working in customer service establishments that deal with tourists as most of the jobs they occupy tend to be governmental in nature. Furthermore, respondents also mentioned that since Qatar is a multicultural and multinational country due to its expat nature, residents cannot differentiate between tourists and the local community, which makes it difficult for the residents to take initiative and interact with the tourists. However, residents would gain more knowledge and learn from the tourists by interacting with them, as well as have more positive attitude towards tourism because of their direct link to the tourism industry, especially those who would sell products or services to the tourists. Thus, promoting sustainable tourism development requires enhancing of Qatari local's Quality of Life by providing them job, or even voluntary tasks, that deal directly with tourists. Results further demonstrated that most of the national residents who are positive about the tourism in Qatar view tourism to be a source of economy, international recognition and trigger for development, while those who showed their disagreement and negative attitude towards tourism, complained about the direct tourists influence towards Qatar such as traffic, language or Western lifestyle which alters local traditional culture. Moreover, when asked if their opinion were considered in tourism projects developed in the country, 55.6% of the respondents answered "sometimes" while an only 8.5% stated "always". However, in an interview with a correspondent from Qatar Tourism Authority the participant suggested that the government values local's opinions and always conducts surveys with local before implementing tourism projects. This suggest that if surveys were actually implanted on local prior the development of tourism projects in the country, residents misinterpret the intentions of such surveys. This draws us to believe that residents want more hands-on involvement in the implementation process of any tourism project being developed in the country. Respondents were further asked if the government should consider the local's opinions on future tourism plans and 73% stated that they would always like to be involved, while 26% answered sometimes, and 0% answered never. Thus, national residents want to always get involved in the process of tourism development, starting from the planning phase, and through the implementation phase. Quality of Life can then improve when they feel they are part of this entire decision-making process and not only participants in a survey conducted by the local authorities.

5. CONSLUSIONS

As Qatar is currently focusing on tourism development in the country and intends to attract larger numbers of tourists in the upcoming years, there is clear and urgent need for a sustainable tourism plan to be implemented with clear measure to be addressed. Results illustrated that a significant number of residents view tourism in a positive manner and see it as a necessity for the future of the country. However, results also demonstrated that lack of interaction between the local community and the tourists in Qatar, yet the local community showed positive attitude towards the tourism industry. Residents then simply understand the benefits of tourism in theory, but in practice are not entirely happy with their lack of involvement and demand to be more involved. The government should be considering the local's perception and opinions, as locals play a big role in the success of tourism projects at all times, as well as enhance the

strategic planning of future tourism plans. Local not only can be the extra mind behind projects but can also be the welcoming face that tourists see when visiting the country. There is clearly a lack of knowledge towards by the locals as they do not know who the tourists are and do not distinguish between the expats living in the country and the tourist visiting it. Hence, the government through its local authorities holds the responsibility of assuring that such distinguishes are made and ensure that locals are more involved with tourists. There are two main streams in assuring the latter is achieved. The first is by getting local involved in the planning and implementation processes on any tourism development project through their continuous involvement by allocating them with payed or voluntary tasks that would contribute towards each project. The second is through educational programmes. There is a clear need for educational programmes that highlight the importance of tourism in the county to be implemented. Local authorities require a closer collaboration between private and public organisations in order to implement educational programmes that explain how tourism if addressed in a correct manner can contribute immensely to the economy, thus, creating more jobs and infrastructural development. Tourism, the boundary breaker of cotenants which encourages collaborations amongst various countries around the world requires educational programmes that can be implemented through communal gatherings, community meetings, conferences, political talks, and classroom courses. Consequently, identifying and clustering residents based on their attitudes and perceptions of sustainable tourism development is beneficial in order to address the lack of knowledge about local stakeholders in Qatar. The creation of local stakeholder profiles which could also support tourism planners and policy makers through understanding which sustainable tourism actions will be most likely supported by the community. In addition to this, planners and policy makers are required to identify the local stakeholders' preferred way of communication and involvement, which can in turn support stakeholder engagement strategies. Achieving sustainability in tourism is a continuous process that necessitates continuous monitoring of impacts and innovative problem-solving skills. Sustainable tourism development requires the informed and active participation of all the relevant stakeholders, especially the host community. The more the local community interact with tourists the more positive social impacts occur within the local community's perception. Interactions of residents and tourists can only occur through the correct involvement of residents, and this is the sole responsibility of local authorities. Positive interaction leads to a better Quality of Life if correctly understood and if appropriately involved, and thus correct measures taken by local authorities lead to enhancing resident Quality of Lives while also increasing tourism numbers to the country, thus, benefitting all parties with no harm caused.

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REGIONAL DEVELOPMENT IN PROVISION OF ECONOMIC GROWTH

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ABSTRACT

The importance of the provision of economic growth in globalized world economy, being the strategic aim of national interests, the strengthening of macroeconomic stability comprehensive and sustainable development, improvement of social welfare as a source connected with these problems. Since its independence, volatile development of Azerbaijan's economic growth rate, that is stages of recession, stability and upsurge or boom, was the result of various internal and external factors, affected by the country's strategic importance. For example, if recession in the early years was characterized by internal factors like stagnation and stability, the upsurge stage of the country's economy related to the oil strategy was catalyzed by such external factor as the increase of the oil prices in global economy. Nevertheless, slowdown in economic growth and weakening of economic activity in 2001-2014 with the sudden and sharp drop in oil prices, reconfirmed, that dependence of the economy mainly on oil-related activity is not effective. As a result, decrease in monetary reserves and limitation in sources of economic financing, generated necessity for search of new means of investment in its economic growth. From 2015 it was an imperative course to shift from capital-intensive to essentially new economic growth models based on efficient financing sources and prioritization of non-oil sector development was set forward as the catalytic factor in the process. It is specifically stated in the Strategic Road Map on national economy that development of the non-oil sector plays a crucial role in achieving sustainable economic growth. The chances of non-oil sector development depends on the stabled and balanced development of regions, improvement of economic structure and their implementation and capital investment. The hardness center of regional development of socio-economic development are connected with institutional reforms, the implementation of the measures accelerating economic development in the regions, achieving their balance development caused to the disproportion. Determination of development priorities of the regions, effective utilization of existing natural resources, from the proportional placement of productive forces, approaching of production fields to raw materials, with expansion of innovative production of export orientation of competitiveness, diversification of economy creates conditions and it provides the economic stability of the country.

Keywords: *economic growth, GDP, regional development, regional policy, social wellbeing*

1. INTRODUCTION

The world financial crisis and economic decline followed by slower development rate of most national economies and the unproportional balance between the increasing demand and limited resources makes the economic growth probem the focus of this research as it is one of the key macroeconomic and life rating indicators, that determines the human development index as well as GDP per capita. Affected by some internal and external factors, Azerbaijan's economic growth has been wobbly since independence. While the GDP and economic growth rate decreased due to reduced production and shattered economic structure in first years, the import of crude oil into world market triggered the economic growth until 2014. Howeve, global oil price crash in 2015 resulted in devalvation of national currency "manat" and the reduced investments, thus decreasing the growth rate again. To reduce the economy's oil dependence as well as to ensure the sustainable economic growth, the government approved Strategic

Roadmap on National Economy Development, a document that covers the stages and steps for the productive and effective development of non-oil sector. The socioeconomic development of regions is exceptionally important in securing the economic growth, as the majority of non-oil industries are located in the regions. President Ilham Aliyev's 3-phase government program aims to reduce regional disparities and ensure the balanced regional development. Another importatnt step of regional policy emphasized in Strategic Roadmap is the creation of new labor intensive industries as the lower labor costs in the regions can serve as a new source of economic growth. The successful regional economic development can also address the issues like the creation of equal social conditions for population, reduction of social tension, and improvement of life standards.

2. ECONOMIC GROWTH: IMPORTANCE AND IMPLEMENTATION STEPS

2.1. Importance of Economic Growth

In global worl economy, the economic growth is a starategic objective of securing the national interests as it is the main factor in ensuring the sustainable development of economy and improvement of life standards. An indicator of social-economic development of a country, the economic growth provides funds for incresed productivity and assesses the real growth rate of GDP and GNP per capita. The factors such as natural and economic resources, production level, technological changes, insitutional reforms, participation in international integration process and etc., can affect the economic growth rate of a particular country in a positive or negative way. According to the International Monetary Fund, due to global financial and economic crises, in 2014, the economic growth rate was 3.4 percent - 1.8 percent in developed countries, and 1.6 percent in low-income countries. In 2015, the world economic growth rate decreased to 3.3 percent, and increased back again to 3.8 percent in 2016. Recent global economic downturn followed by the decline in growth rate of national economies has shifted the main focus to the discovery of the most effective ways of the utilization of natural resources and economic potential. A quantitative economic growth can be achieved by utilization of all natural and economic resources, when the effective and sustainable utilization of physical and human capital, natural resources and technological knowledge will lead to qualitative economic growth. Despite the abundance of natural resources, scientific potential and human capital remain as the permanent and inexhaustible resource of economic development. Hence, increasing the quality and competitiveness of these resources play a major role in economic growth (Strategic Road Map, 2016, p. 26). Physical capital and natural resources accounted to 16 and 20 percent, respectively, of world economic growth, whereas the 64 percent has come from human capital. Taking into account the increasing role of science in economic development, increasing investments in education and human capital is becoming more necessary. "It is particularly important to achieve medium and long-run economic growth to ensure sustainable economic growth." (Meybullayev, 2011, pp. 184). While the short-run growth can be achieved through more effective, efficient use of existing resources, the required measures to support the medium-run growth include the diversification of economy, fast development of non-oil sector and regions, creation of a free competition and favorable investment environment for the development of the private sector and so on. For a long-run economic growth, however, it is crucial to create an efficient and innovative economy, strengthen the country's position in the world market, ensure the growth of GDP per capita and improve the standard of living of population. The short- and long-run growth of the national economy depends on the objectives of the economic policy pursued by the state. Fiscal, monetary, social, institutional and other policies can stimulate the growth in short-run, but can have a sustainable impact in the long-run. In other words, short-run growth is defined by effective use of labor and capital, while long-run economic growth is driven by innovative development.

Because the volume and quantity of GDP, as well as the quality of goods and services per capita are important indicators of economic growth, they are carefully measured in the analysis of the economic growth situation in the country. Additionally, the GDP per capita is another main indicator that measures population's wellbeing and determines the human development potential index. It should be noted that not only internal factors, but also external factors can affect the economic conjuncture in the country. With the expansion of globalization, external factors can now change the quality indicators of economic growth. "As the integration process deepens, international division of labor, foreign economic activity, import and export operations and other factors are more apparent ". (Sakaraliyev, A., Saakraliyev G. 2016, p. 41) Since its independence, volatile development of Azerbaijan's economic growth rate, that is stages of recession, stability and growth or boom, was the result of various internal and external factors, due to country's strategic location. For example, if recession in the early years was caused by internal factors like stagnation and instability, the increase of oil prices in global market, the external factor, followed by oil strategy pursed by state contributed to the growth of economy. During the first years of independence, the collapse of the economic structure resulted in the sharp decline in production, the reduced GDP and national income, the high unemployment rate, the low living standards of population, the absence of currency reserves in the country, and other deficiencies, thus causing the economic growth to decline. Financial resources were not available for the solution of these problems. To restore and develop the national economy, the state budget revenues were increased through the sale of crude oil to the world market which resulted in 11.1 percent economic growth (oil sector being dominant in GDP growth) in 2004-2014. Sudden and sharp drop in oil prices followed by slowdown in economic growth and reduced economic activity in 2001-2014, reconfirmed that oil dependence should be reduced to ensure the economic growth. To minimize the negative impact of declining oil revenues and devaluation of manat and maintain macroeconomic stability became a key priority. In 2015, the decline in the currency reserves and limited financial resources neccessiated the switch from capital accumlation to non-capital accumulation. Sustainable development of non-oil sector became mandatory. As discussed earlier, the economic growth primarily depends on the real GDP growth rate, sources of its growth, structure and the features of its formation which in its turn affects the changes in the welfare level of the population. While qualitative growth of GDP ensures the expansion of the market value of all the final goods and services produced in a period of time, improvements in its structure will help to meet ever-growing demand, and contribute to a high quality and cost-effective growth. Not only quantitative growth, but structure of output is also important in measuring GDP. Although the share of oil GDP was dominant in economic growth in 2004-2014, the manufacturing, as well as agriculture, communications, construction and transportation sectors played a significant role in GDP growth. The development of the non-oil industry had became a new source of growth after the sharp decline of oil prices negatively impacted the country's economy.

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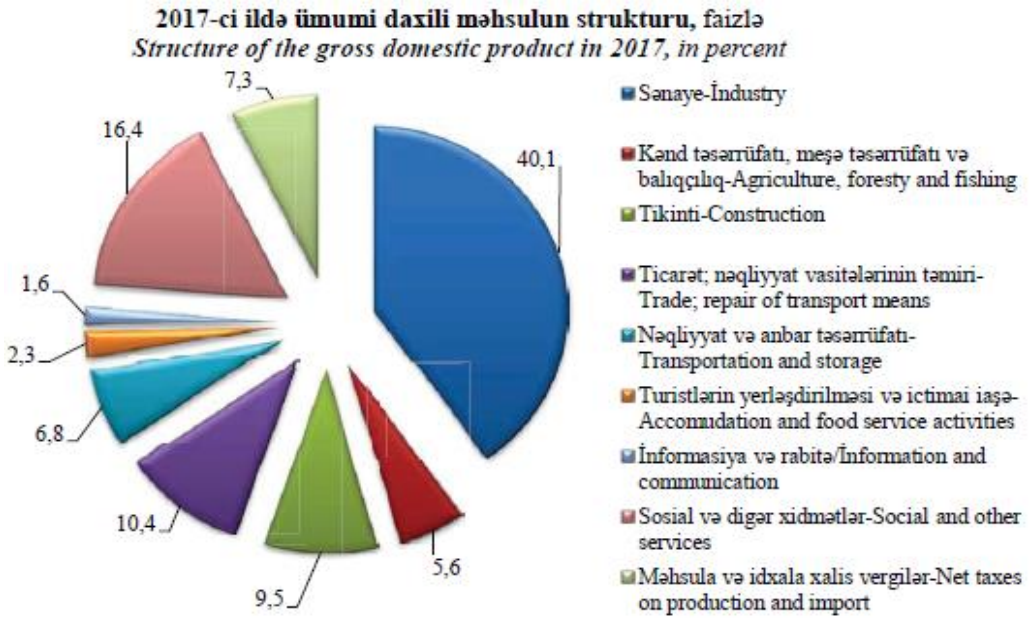


Figure 1: Structure of the gross domestic product (The State Statistical Committee of the Republic of Azerbaijan).

The adoption of the Strategic Roadmap on Development of National Economy emphasizes the importance of reducing the oil dependence of country and utliziation of new sources of growth to ensure sustainable economic growth rate. In this strategic document, the country's 25-year (since independence) economic growth is divided into 4 stages, such as decline, stability, high economic growth, and deceleration. The development of non-oil sector was prioritized at the top of the list of required measures to ensure the sustainable growth as it can contributes to the expansion of export, production of competitive products, employment growth, reduction of unemployment and poverty, and creation of new jobs. The development and diversification of the non-oil sector is crucial for ensuring the sustainable economic growth (Strategic Road Map on National Economic Development, Baku, 2016, p 41).

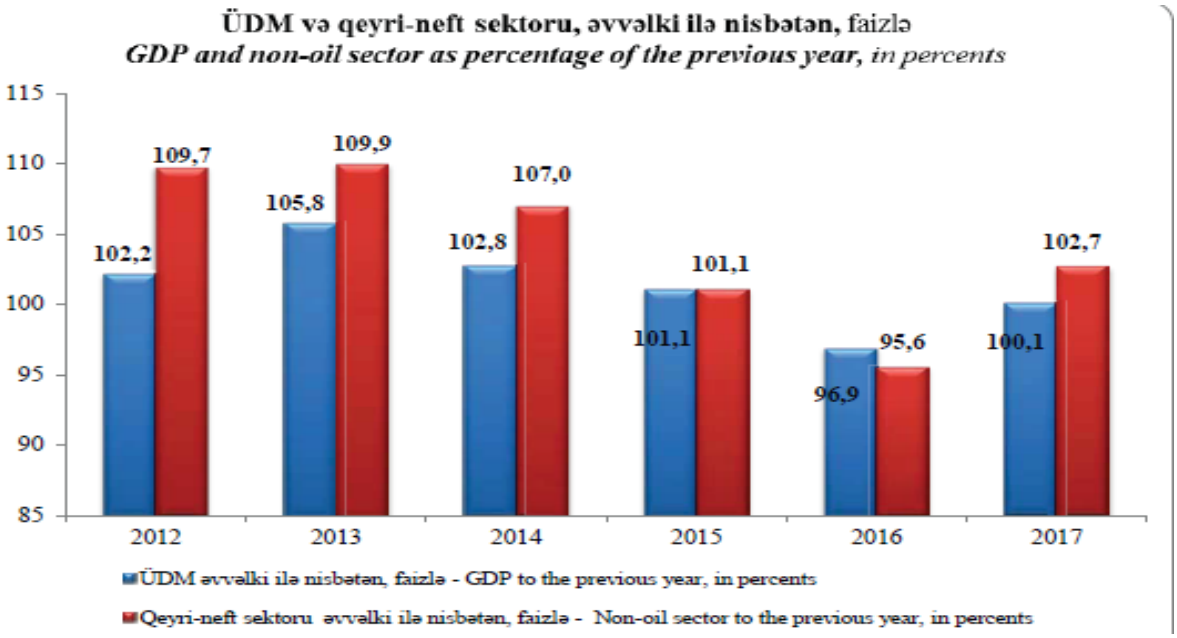


Figure 2: GDP and non-oil sector as percentage of the previous year (The State Statistical Committee of the Republic of Azerbaijan)

There are abundant examples of the oil-rich countries, that used oil revenues not for investments but for current consumption purposes thus failing to build sustainable and competitive economies. In 2004- 2014, foreign companies invested $52 billion in Azerbaijan's economy. 85 percent of FDI was pumped to oil sector and only 15 percent to non-oil industry. Despite the relatively small share of direct investments, the economic growth rate of non-oil industry was 32.5 percent compared to 8.2 percent of growth in oil sector. However, the inefficient use of foreign investment potential (investing more in infrastructure than in production areas) has resulted in decreased return on investments. As mentioned before, one of the main factors of economic growth is the diversication of economy, in other words investing into other potential sectors of the economy like communications, construction, transport, tourism, engineering, light and food industries, and etc. It should be noted that, despite the 26.1 percent decline in investments in 2016, the funds invested into non-oil sector increased by 20.2 percent while non-oil industry grew by 24.4 percent. In 2017, 15.6 billion AZN was invested into all sectors of the economy, of which domestic investment accounted for 44.6 percent and foreign investment for 55.4% percent. To improve the efficiency of investments and to leave more funds for other social problems by lifting the burden off the state, the role of the private sector in state's investment policy should be expanded (Strategic Roadmap, p 20). Since human capital is one of the most important factors affecting economic growth, investments in science and education develop new knowledge and high-skilled human capital thus creating more opportunities for innovation-based economy. There is a correlation between science, education and economic growth which contributes to the quality of education and the activity of research universities. In short, the increase of investments in science and education as a means of development of the economy is a positive trend, however, the state should not participate in this process alone, but also encourage the private sector (Strategic Road Map for the Development of National Economy, p. 85). Diversification and the creation of a favorable investment climate in agriculture is another significant step in expanding economic growth because as an important part of non-oil industry agriculture contributes to its dynamic growth. The relatively underdeveloped infrastructure is the main cause of slow growth rate of agriculture in Azerbaijan. By stimulating the production and introducing new machinery and equipment, the the gross output of agriculture was increased by 25.1 percent in 2011-2012, and totaled to 5.63 billion manats in 2016. Livestock accounted for 54.2 percent, and crop products to 45.8%. Efficient use of existing lands and utlization of new ones as well as creation of large farms and aquaparks are important prerequisites for conomic growth in this area. The establishment of industrial sites processing natural resources and agricultural products as well as the access to foreign markets will not only control the demand for such products like grains, crops and livestock but also strengthen national food security thus creating conditions for socio-economic development of the country. As outlined in the Strategic Roadmap, reducing import dependence of production areas and expansion their export potential, another factor impacting economic growth, will ensure the country's economy is fully integrated into the global market. The poor diversification of export and its heavy dependence on raw materials, necessitates the production of competitive non-oil products, the main driving force of economic growth. According to the data of the last year, the foreign trade turnover of the country amounted to $ 26534.3 million, of which export and import accounted for $17281.7 and $ 9252.6 million respectively (https://www.stat.gov.az/news/macroeconomy.php?page=). Infrastructure network, its complex structure and condition are significant factors affecting the economic growth rate. Socio-economic development of the regions plays an important role in this process. Following the measures and state programs implemented to strengthen the socioeconomic development of the regions, the infrastructure of the country has been condiserably developed in the recent years. As non-oil industry is becoming a major factor in expanding the economic growth through introduction of innovative and efficient measures and majority of non-oil sector sites

operate in different regions of the country, socio-economic development of the regions has become one of the most pressing problems in recent years. According to the President Ilham Aliyev, the comprehensive and sustainable development of the country is tightly linked with the development of regions.

3. ROLE OF REGIONAL DEVELOPMENT IN ECONOMIC GROWTH

3.1. Regional development and policy

Despite the strategic location of Azerbaijan and its rich natural resources, each region has differing economic and geographical position, climate and natural resources, population resettlement, field and territorial structure, historical development characteristics, and population income. And it is very normal. Territorial structures represent a large number of enterprises located throughout the country, and the diversification of production areas are not always present. The existence of resources, historical traditions, strategic and geopolitical objectives of the state, entrepreneurial activity and other factors can affect these disparities. In some regions, for example, mechanical engineering dominates the other sectors, in others mining industry is leading and so. Likewise, in the regional territorial structure, region's climate, natural and human potential, entrepreneurship opportunities and investment attractiveness are the factors affecting the formation of specific industry in the region. Along with Baku, Sumgayit, Ganja and Dashkasan, we can name Ali-Bayramli, Salyan, Mingachevir, Yevlakh, Goychay, Nakhchivan, Sheki, Lankaran and Khachmaz as the main industrial centers. Obstacles, and risks hindering the development of regions, as well as the significant disparities between them derive from each region’s specific characteristics and can negatively impact the region’s economic security. Therefore, it is necessary to implement a regional policy to prevent these obstacles and risks on time and to gradually minimize the disparities. Additionally, the discovery of other potential natural resources besides oil and gas, effective use of these resources as well as the detection of factors that affect or hinder the economic turnover are directions of the state's regional policy. After the independence, countrywide economic oil dependence and the lack of regional policies, plans and programs resulted in even more increased regional disparities. The share of the capital city Baku in GDP production reached to 76.9% compared to 23.1% that of the regions. Moreover, the centralization of most industrial, infrastructure, production and service areas, including oil and gas industry, in Baku and around it, have also affected the unequal development of the regions. In recent years, 52 out of 72 regions have experienced economic growth while the economy of the remaining 20 regions continued to decline. Economic growth in top 10 regions was increased by 2.2-2 times. Placement of separate production sites close to the raw materials and proportionate deployment and use of productive forces create favorable conditions for socio-economic development of the regions and are considered as successful measures in regional policy implementation. Also, the development experience of industrial countries indicate that by investing in underdeveloped regions, granting subsidies and aids, and allocating special development funds, the governments can eliminate the regional disparity. Additionally, introducing other economic measures such as preferential tax rate or exemption from taxes, interest-free or low-interest loans, debt repayment, will expand production capacities in the regions and increae export potential. During the last 15 years, tax revenues in Azerbaijan went up by 14 times, same as the non-oil revenues (14 times), while regions’s tax revenues increased by 14.8 times. The number of taxpayers went up six fold. By 2017, taxpayers have paid 6 billion 971 million 679.6 thousand AZN to the state budget. (The regulations of tax debts of taxpayers existing on January 1, 2017) Likewise, utilization of scientific and technical potential of each region in connection with the city or region’s profile, transfer of unsuitable enterprises to the other regions of the country are also effective measures. For example, transfer of activities of new enterprises and facilities in major industrial centers like Baku, Ganja and Sumgayit to other regions can reduce the existing

disparities between the regions. The regional policy of each country addresses the problem of regional disparity, taking into account the realities and circumstances of that country in a specific time period. For example, Russian government uses special economic zones to develop northern regions, whereas development of provinces is more important in Turkey's regional development program. The European Union, a major regional organization, implements the Economic and Social Cohesion policy towards countries included in this organization (Mehdiyev, R. 2018, p 23). Furthermore, regional policy also addresses social issues such creation of equal conditions for and decent living standards for population and reduction of internal social tension in the regions. One of the most important components of social policy is the employment of the population, in other words, the employed population participates in solution of some social problems because the higher the employment, the more funds can be allocated to welfare, unemployment, retirement and veterans funds. Employment also prevents the internal migration of population (from villages to the city) and helps to reduce the emigration. The recent government programs intended to accelarate the socioeconomic development of regions contributes to creation of new competitive and labor intensive manufacting facilities thus increasing the domestic production and ensuring the balanced development of the regions. As a result of these programs, 1.5 million jobs, of which 1 million is permanent, have been created, in the country. The number of officially unemployed people was 33 thousand. Furthermore, 221 thousand new jobs (177 thousand of them permanent) were created in 2017. According to the macroeconomic indicators of the country's economic and social development, the nominal income of the population reached to 47,368.8 million AZN in January-August of 2018. Per capita income amounted to 4825.3 million AZN while the average monthly salary became 540 manats in this time period (https://www.stat.gov.az /news/macroeconomy.php?page=). To summarize, the increased employment of population contributes to the rise in income and the expansion of production of high quality products and services, which consequently strengthens the economic growth rate.

3.2. Main directions of socioeconomic development of regions

With the establishment of market economy, a regional policy, the First State Program on socio-economic development of the regions of the Republic of Azerbaijan for 2004-2008, was launched to improve the socioeconomic situation in the regions. The First Program aimed to expand production of reusable and low-cost goods and servicess through processing internal resources, improve the economic performance and activity of production facilities, control the supply and demand by encouraging local entrepreneurship, increase the employment by creation of new jobs, and improve the infrastructure by attracting investments in the regions. The Second State Program (2009-2013) allocated annual oil revenue funds (billions of AZN) to projects in the regions, which served as the driving force for the restructuring and development of infrastructure in the regions. In total, 14.5 billion manat was invested in the implementation of the program over the course of 4 years. As a result of the policy, key problems, such as creation of the entrepreneurship environment in the country, sustainable development of non-oil sector, expansion of regional socioinfrastructure, job creation and employment, attraction of investments, and powerty reduction have been also addressed. Overall, the socioeconomic development policy has resulted in rapid growth of regional macroeconomic indicators over the past ten years. In particular, GDP and GDP per capita increased 3.2 and 2.8 times respectively. Non-oil GDP growth went up by 2.6 times, and average annual economic growth equaled to 12.9 percent. Strategic currency reserves increased 31 times, foreign trade turnover 6.6 times, export 9.3 times, import 4.1 times, non-oil exports 4.7 times. The latest state program, the Third State Program on Regional Development (2014-2018), also identified the regional development priorities, and carried on complex measures to diversify the economy, improve social services and infrastructure in rural areas and develop the

non-oil sector. By utlizing the existing potential, new processing facilities have been created, the social infrastructure has been improved, health, science, education, sports and cultural facilities have been reconstruced and modernized. Foreign and political factors and situation around the country neccessitated the participation in regional and international projects. To secure the regional policy and ensure long-run sustainable growth of country, Azerbaijan signed the major international contracts for Baku-Tbilisi-Ceyhan oil pipeline, Baku-Tbilisi-Erzurum Oil and Gas Pipeline, Southern Gas Corridor, Baku-Tbilisi-Kars Railway, Baku (Alya) Sea Trade Port (transportation of cargoes from Asia to Europe), Shahdeniz-2 and other. Another initiative, the "State Program on Industrial Development of Republic of Azerbaijan for 2015-2020" equally empasizes the importance and developemnt of industrial policy as integral part of regional development program. The program also stresses the importance of modernization and development of chemical industry (non-oil), expansion of export potential, improving the competitiveness of manufacturing products, expansion of production of high-tech and innovative products, creation of high-quality and environmentally friendly food products and other measures in ensuring the economic growth of country. Additionally, multifaceted facilities like Sumgait Industrial Park (chemical products, etc.), Mingachevir Industrial Park (light industry products, etc.), Garadagh Industrial Park (shipbuilding and machinery, etc.), Balakhani Industrial Park (waste management), Pirallahi Industrial Park, Neftchala Industrial District (furniture, construction products, agricultural products processing, etc.), Hajigabul Industrial Park (waggon, car spare parts, etc.), Masalli Industrial Park (furniture, construction materials production, etc.), contributes to a steady increase in non-oil sector and development of major innovative industry areas. Industrial parks and districts are crucial in strengthening economic potential, creation of new production areas, introduction of structural change as well as of in increase of employment opportunities (Mehdiyev, 2018, page 15). In summary, the Third Regional State Program has been instrumental in increasing the internal and external investment in the non-oil economy, creation of industrial parks and competitive, export-oriented production sites, improvement of business environment, expansion of the new businesses and jobs, and creation of infrastructure projects. Investments in the regions amounted to 70 billion manat in this time period. In 2018, 20 billion AZN was invested in Azerbaijan's economy, of which the non-oil sector accounted for 15.7 billion AZN. This investments significantly contributes to the economic growth of the regions as the number of new enterprises in the regions grows every year. For example, in 2017, production output was 56 million AZN in Baku, followed by 23 million AZN in Absheron economic region, 6,4 million AZN in Aran, 3.4 million AZN in Nakhchivan Economic Region, 3 million AZN in Ganja-Gazakh, 1.8 million in Lankaran, 1.6 million in Guba-Khachmaz, 1.5 million in Sheki-Zagatala, 73,000 AZN in Kalbajar-Lachin 59,000 AZN in Upper Karabakh, and 7,900 AZN in Mountainous Shirvan. In all the government programs, including "Azerbaijan 2020: Future Development Concept" and Strategic Roadmap, adopted in 2012, the development of export-oriented, competitive, areas with added value products as well as sustainable expansion of high-tech and non-oil industry have been adopted as the main directions of economic growth. The next stage is to develop regional infrastructure by establishing regional development centers, based on competitive advantages of each region. The Strategic Roadmap identifies the development of labor-intersive sites in regions as a new source of growth as labor costs in the regions are relatively lower compared to those of capital city. However, the training of highly qualified personnel and their productivity is a prerequisite. Continuous socioeconomic development of the regions depends on innovation-based economy. The increasing use of scientific and technological innovations, the predominance of high-tech areas, and the expanded production of innovative products and services play a significant role in regional development policy. Development of region is not only defined by its geographical position or natural resources, but also by the quality of governance.

It is, therefore, recommended to use modern regional management methods in the governance of regions (Nuriyev, 2007, p 427). An extensive research on regional marketing as well as the analysis of economics, the condition of products and services produced in the specific region should be conducted in preparation of The Regional Development Program (Huseynova, 2010, p. 224). Enterpreneurship plays an important role in regional economic development policy. Consequently, the cost of entrepreneurial projects in Azerbaijan amounted to 4.4 million AZN in 2003-2017. 34,553 entrepreneurs received 2.1 million AZN of preferential loans, 71.6% of which was invested to the development of agrarian industry and 28.4 percent to other entrepreneurial activity. Since the regional development is regarded as a non-oil industry growth, sustainability of this process, and creation of favorable conditions for entrepreneurial activity, doesn't burden the state budget, instead, increases the role of the private sector. The presence of entrepreneurial activity in a specific region is largely dependent on the investment activity which differs from region to region. Investment activity is the intensification of investment accumulation into the main capital of the region. Investing in imports (wheat, butter, mineral waters, rice, potatoes, medicines, cigarettes, knitwear, detergents, fertilizers, etc.), as well as tax cuts and preferential loans provides favorable conditions for the economic growth. Likewise, agriculture plays crucial role in the implementation of the regional development program. Currently, agriculture produces 5.6% of GDP, 47% of the country's population lives in rural areas and 36.3% of the labor force is employed in agriculture. However, the lack of irrigation systems and infrastructure required for livestock and agriculture is slowing down the development of these areas. In general, the restoration and construction of necessary infrastructure in the regions is being financed primarily by state funds. Nowadays, 43 agroparks, including 27 crop and 16 livestock farms operating in 28 regions play a major role in addressing food security in the country. Balanced development of regions also depends on the development of agrarian-industrial facilities in the regions. Strategic objective of every agrarian industrial facility should be the production of high-quality agricultural and food products, export of these products to the world market, and the expansion of competitive agrarian industrial products under the brand name "Made in Azerbaijan". Development and expansion of foods and areas like tomatoes, fruits, cotton, cereals, nuts, plants, viticulture, olive cultivation, beekeeping, tea making and others will bring extra cash to the country's economy, and contribute to the economic growth. Likewise, other production facilities operating in the regions, such as canning, cotton processing plants, tobacco processing, grape and livestock production that primarily rely on local resoures, can also lead to economic growth in the regions. At present, the establishment of logistics centers for procurement, purchase and sale of agricultural products (for example, in Shamkir) implements these tasks. Business Support for Family Business (ABAD), a program to support and encourage family businesses (farmers) to get access to local and foreign markets equipped with modern methods is aimed to increase the competitiveness of agricultural products and their export potential. Construction of drinking water and sanitation systems and gasification of regions with major infrastructure systems leads to improvement of social welfare of the population. Innovations in road infrastructure opens opportunities for tourism development. For example, Shahdag complex, Tufandag ski resort, Naftalan international tourism center, Nakhchivan tourist complex, five star hotels and etc. increases the country's economic potential. (http://medeniyyet.az/page/news/18396/ Azerbaycanin-iqtisadi-potensialinin-guclendirilmesinde-regionlarin-inkisaf-proqramlari.html)

4. CONCLUSION

Recent global economic downturn followed by the decline in growth rate of national economies has shifted the main focus to the discovery of the most effective ways of the utilization of natural resources and economic potential. In 2015, the decline in the currency reserves and limited financial resources neccessiated the switch from capital accumlation economy to non-

capital accumulation. Sustainable development of non-oil sector became mandatory. Since non-oil industry is becoming a major factor in expanding the economic growth through introduction of innovative and efficient measures and majority of non-oil sector sites operate in different regions of the country, socio-economic development of the regions has become one of the most pressing problems in recent years. Placement of separate production sites close to the raw materials and proportionate deployment and use of productive forces create favorable conditions for socio-economic development of the regions and are considered as successful measures in regional policy implementation. Likewise, utilization of scientific and technical potential of each region in connection with the city or region's profile, transfer of unsuitable enterprises to the other regions of the country are also effective measures. Furthermore, regional policy also addressess some social issues like creation of equal conditions for and decent living standards for population and reduction of internal social tension in the regions. As part of overall socioeconomic national strategy, regional policies aim to expand regional growth by reducing the disparities between the regions and ensuring sustainable and balanced economic growth. The Strategic Roadmap identifies the development of labor-intersive sites in regions as a new source of growth as labor costs in the regions are relatively lower compared to those of capital city. However, the training of high qualified personnel and their productivity is a prerequisite. Strategic objective of every agrarian industrial facility should be the production of high-quality agricultural and food products, export of these products to the world market, and the expansion of competitive agrarian industrial products under the brand name "Made in Azerbaijan"

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PREPARATION AND IMPLEMENTATION OF AGRICULTURAL DEVELOPMENT MASTER PLAN FOR ADMINISTRATIVE RAYON BASED ON SUSTAINABLE AND INCLUSIVE DEVELOPMENT PRINCIPLES

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ABSTRACT

Algorithmic sequence on preparation and implementation of agricultural development Master Plan for administrative rayon comprises the followings: a) preparation of the agricultural development strategic plan; b) identification of agricultural reform model; c) support or creation of the inclusive development potential; d) risk preclusion, mitigation or management; e) formation of principles of internal relations for sustainable development ensuring; f) cluster formation as institutional step for inclusive development ensuring; g) mapping of land use and consolidation plans and crop rotation schemes; h) identification of yield/productivity increase and efficient resource utilization ways. Such approach could increase welfare of rural population and productive resource utilization.

Keywords: *agriculture, cluster, inclusive development, reform, strategic plan, sustainable development*

1. INTRODUCTION

Agricultural reforms had long history and low success rates. Final conclusion on success rate of reforms could be expressed after decades only. It is a specific feature of agrarian reforms. Major important issue of reforming is existence of the Sustainable and Inclusive Master Plan (SIMPL) for identified (or known) land plots, settlements, farmers and families. The proposed approach considers agriculture and rural population as integrated system which requires long-term goals establishment and following. Annual changes of targets, crops, production plans, etc. resulting indifferent situation and losses for farmers and economy. To avoid all possible negative consequences one shall follow.

2. STEP 1 - ANALYSIS OF RESULTS OF PREVIOUS REFORMS, PROJECTS AND IMPLEMENTED MEASURES

The first stage requires wide analysis of the reasons of previous failures. That is why cost on resources, level of planned and actual results shall be analyzed and processes and current

situation shall be carefully estimated. Major resources of agriculture – land, water, energy, animals and staff qualified has to be measured/estimated to have a reliable data for strategic planning. All possible directions of productive and social investments shall be reviewed and estimated.

3. STEP 2 – MODEL DEVELOPMENT FOR PREDICTING ACTIVITY

We had developed cluster planning, agricultural production and employment as well as demographic prediction models for 2 regions of Azerbaijan. All 3 models are interconnected and could be expanded for further research and planning purposes. Major results of modelling stage are:

- Evaluation of different scenarios on economic and social development of the territory;
- Estimation of carrying capacity of each territory and demand on non-agricultural jobs;
- Development of the criteria and inclusive development targets based on available resources;
- Request on central government support;
- Other policies and projects to support rural families and farmers.

4. STEP 3 – CLASSIFICATION AND RESTRUCTURING

Resources, operations and activities shall be classified. In Azerbaijan first of all actual types of growers, investors, agricultural workers and service providers shall be recognized as an object of agricultural policy. The following groups of agricultural activity are existing today:

- Farmers;
- Investors;
- Service providers;
- Workers;
- Managers.

Each of these groups are the subject of separate policy and incentives. Other important direction of classification is ecosystem approach to settlemnt grouping and territory planning. We shall differ natural ecosystem and adjust all human activities to protect nature and ecosystem services. All activities of agricultural groups, communities and settlements population shall be planned around selected development centers by a way of minimum hazards and risks for ecosystem services and protected areas.

5. STEP 4 – RESOURCE EXPANSION AND UTILIZATION

SIMPL shall cover all resource development and utilization options. Major resources of agricultural development – land improvement, water, energy, thoroughbred animals and seed-growing facilities, staff qualified, watering systems, greenhouses, etc. shall be estimated and related investment policy implemented. Having resources, facilities and staff gives a possibility to select best technology and profitable business for subject territory and population. Such directions include crop rotation, technological and economic support by other interested groups and the Government, land productivity increase, etc. All available resources shall be used by the best manner. In addition to modern technologies we shall create the system of internal relations stimulating development and productive use of resources.

6. STEP 5 – INCLUSIVITY AS A CORNERSTONE OF AGRICULTURAL ACTIVITY

Agricultural reforms shall create new attitude to farmers and their families as a part of ecosystem. Accordingly, farmers and their families shall be entitled to cover individual demands in food, consumer goods and services at certain level. At the same time, farmers and their families shall do intrinsic actions related to agriculture only. Activities like financing, borrowing, predicting, planning, technology selection, supply, marketing, trading, insurance,

etc. are function of big farms or specialized consultancy companies and extension services.

7. STEP 6 – THE SUSTAINABLE AND INCLUSIVE MASTER PLAN (SIMPL)

SIMPL shall take into consideration all above requirements and propose Cluster initiative. Cluster shall join input suppliers, traders, processing industry, research centers, financial institutions, NGO and Government representatives to support farmers and families in certain area to realize the above goals.

8. CONSLUSION

Schematically described sequence of major stages is conditional and for illustration purposes only. Indeed such strategy development involves high-level experts and research centers. The major target of experts shall be optimal land use and animals breeding technologies. Correctly selected technology will produce high quality food and raw material which is a guarantee of stable market demand and profitability. The Government shall take care on activity of clusters formed, risk preclusion, mitigation or management. Such approach could increase welfare of rural population and productive resource utilization.

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STRATEGIZING OF THE SPATIAL DEVELOPMENT OF THE REGION BASED ON THE CONCEPT OF "SMART SPECIALIZATION"

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ABSTRACT

The purpose of the study is to determine the conceptual foundations and approaches to the strategy of spatial development of the region based on the principles of "smart specialization" considering the specifics of the resource potential and geo-economic situation. The scientific novelty of the research is connected with the development of conceptual and categorical apparatus of regional and spatial economy in the form of the author's extended interpretation, hierarchy and systematization of such concepts as "region", "space", "territory", "spatial potential of the territory", "spatial development of the region", "strategy of spatial development", "smart specialization". In the process of comparative research using the method of "tag cloud" content analysis of strategic documents of the regional level of the European Union and some regions of the Russian Federation, in the context of their application of various forms of spatial organization of the economy and the principles of "smart specialization" was carried out. It is established that various forms of spatial organization of the economy and the principles of "smart specialization" are implemented by Russian regional authorities sporadically, fragmentary and unsystematic, which adversely affects the spatial development and leads to a lack of formation and implementation of the unique competitive advantages of the territories. The results of the study can be used in the development and updating of strategic policy documents at the regional and municipal level, including the mobilization of internal resources of the regions, the formation and implementation of strategies for socio-economic, innovative and spatial development and network interaction of the regions.

Keywords: *Macroregion, Smart Specialization, Spatial Development, Strategizing*

1. INTRODUCTION

Strategizing of spatial development (as a set of conceptualization, forecasting, strategic staging, modeling, planning, design, programming, implementation and control) is a relatively new direction in the research of problems of regional policy formation, which was developed in the mid-90s of the twentieth century (Bandman, 1977; Bukhvald, Valentik, 2016; Glazychev, 2008; Granberg, Suspitsyn, Minakir et al., 2011; Kleiner, 2011; Kotlyakov et al., 2013; Zhikharevich, Pribyshin, 2014). This was due to the need to develop completely new methods and tools to manage the potential of the regions in the conditions of transformation of the economic space

in the globalization period. However, despite the existing experience of regional strategizing, many fundamental issues remain unresolved. In the context of the economic and spatial development paradigm, regions become fragments of the economic space, where, in the context of globalization and increasing competition for strategic resources and investments, international, national and regional interests are focused and collide. The process of polarization and disintegration of the economic space is growing due to the uneven distribution and concentration of economic activity at the local, subnational, country and international levels. The strategic challenges of the" new regionalization " require the development of a systematic methodology for strategic spatial development of territories, taking into account state priorities, macro-regional and interregional contexts, types of multiculturalism and prospects for the rational use of the unique internal potential of the regions.

2. TERRITORY, REGION, SPACE: EVOLUTION AND TRINITY OF CATEGORIES AND APPROACHES

The influence of the spatial factor on regional development was studied by representatives of different scientific directions (Boudeville, 1966; Enright, 1993; Glazychev, 2008; Granberg, Suspitsyn, Minakir et al., 2011; Hoover, 1971; Isard, 1960; Myrdal, 1957; Richardson, 1969; Tinbergen, 1967) and passed a long way of evolution (Figure 1).

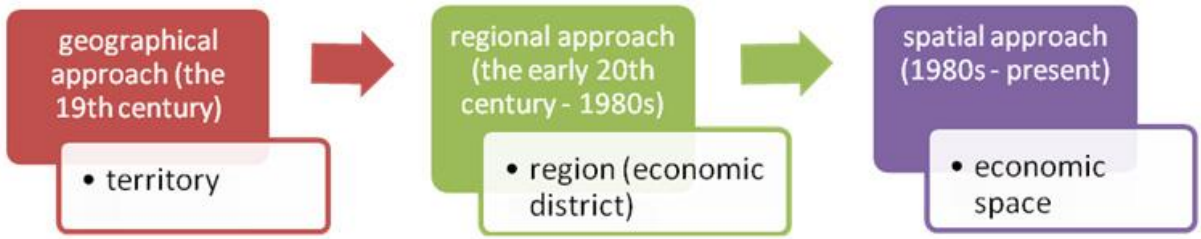


Figure 1: Evolution of Approaches and Categories in the Research of regional development

The research of above-mentioned works in a retrospective allows to claim that for economists of the 19th century not the economic space, and, mainly, the territory as the limited part of the land surface with natural and anthropogenic properties and resources was subject of the analysis (geographical approach). Flourishing at the beginning of the 20th century the theory of economic zoning and the formation of national systems of administrative-territorial and economic zoning concentrated research on the category of "region" or "district" as a territory with different specialization and features of the complex development of the economy, a peculiar geographical location, natural and human resources, which boundaries are defined in the administrative order (regional approach). At the turn of 1980-1990, attention was clearly focused on the category of "economic space". This is due to the filling and saturation of the territory with the development of various objects (settlements, industrial enterprises, transport and engineering structures), strengthening, deepening and complication of the relationship between them, the emergence of prerequisites and opportunities to manage their development (spatial approach).

3. "SMART SPECIALIZATION" IN SPATIAL DEVELOPMENT STRATEGY

3.1. Genesis and Evolution of the Concept of "Smart Specialization"

The concept of "smart specialization" was drafted by an expert group of the European Commission "Knowledge for Growth" (Foray, David and Hall, 2009) as a strategy of innovative development of regions, suggesting the most efficient use of their features and the development of competitive advantages. In the future, as an element of innovative and spatial development, it was developed in a number of works (Barca, 2009; Barca, McCann, 2011; Boschma, 2014;

Coffano, Foray, 2014; Foray, 2015; Karayannis, Grigorudis, 2016; Kutsenko, Alenkina, Kendras, 2018; McCann, 2015; McCann, Ortega-Argilés, 2013; McCann, Ortega-Argilés, 2014; OECD, 2013). These works contain the substantiation of such distinctive features of "smart specialization" as:

- use of implicit knowledge and local competencies to select development priorities;
- evidence through quantitative indicators, building on a broad empirical base;
- principles of diversification, related diversity and strong interdisciplinary connections;
- identification of global technology trends in current and potential regional specializations;
- broad understanding of social and service innovations, including in medium-and low-tech industries;
- search for the region's place in the global value chain, analysis of structurally similar territories and subsequent benchmarking;
- assessment of the potential of interregional cooperation, taking into account the relationship of smart specializations of different regions.

The legal basis for the definition of "smart specialisation" is Regulation of the European parliament and of the council of 17 December 2013 no 1303/2013, where ""smart specialisation strategy" means the national or regional innovation strategies which set priorities in order to build competitive advantage by developing and matching research and innovation own strengths to business needs in order to address emerging opportunities and market developments in a coherent manner, while avoiding duplication and fragmentation of efforts" (European Parliament, 2013). In May 2012, the European Commission developed Guide on research and innovation strategies for smart specialization (European Parliament, 2012). The Guide sets out the main activities that provide guidance for the development of research and innovation according to the strategy of "smart specialization" (RIS3). The Guide consists of six practical steps:

- analysis of innovation potential;
- initiation and management of the RIS3 process;
- development of a common vision for the future of the region;
- identification of a limited number of priorities;
- definition of the relevant "mix" of state policy, development of the road map;
- monitoring and evaluation of the implementation of regional strategies.

Thus, "smart specialization" provides for the distribution of functions by levels of management. At the (above)national level, the general conditions for the development and implementation of strategies, verification of priorities are set, common databases for analytical comparisons are formed. At the regional level, direct selection of priorities for innovation development is carried out, the development of strategies and their implementation, and corresponding coordination structures are created.

3.2. Implementation of the Concept of "Smart Specialization" in the Strategy of Spatial Development

Directions and priorities of development and implementation of the spatial potential of the territories are reflected in the regulatory and legal policy documents, both at the level of integration associations (European Perspective of Spatial Development, the Fundamental Principles of Sustainable Spatial Development of the European Continent, the Territorial Agenda of the European Union until 2020, the Scenario of Spatial Development of the European Union until 2050), states (the Concept of Development "Azerbaijan 2020: a Look into the Future", the Forecast Scheme of Territorial and Spatial Development of Kazakhstan

until 2020., Strategy of Socio-economic Development of the Russian Federation until 2020; Strategy of Spatial Development of the Russian Federation until 2025; Strategy of Innovative Development of the Russian Federation until 2020; State Program of the Russian Federation "Economic Development and Innovative Economy" until 2020), and at the level of administrative-territorial entities. We conducted a content analysis of the strategic documents of socio-economic development of the regions of the Central Federal District of the Russian Federation for compliance with the generalized features of "smart specialization" (Kutsenko, Alenkina, Kendras, 2018) using the "tag cloud" method (Table 1).

Table 1: The Results of Content Analysis of Strategic Documents of Regional Development of the Central Federal District

Region	**Principles of "smart specialization"**						
	Use of unique competitive advantages of the region	Validity of the chosen specialization	The choice of cross-sectoral priorities	A broad view of innovation	Focus on future markets and technologies	Accounting of strengths and specializations of other regions, including abroad	Synchronization between different levels of management
Belgorod region	+	+	-	-	-	-	+
Bryansk region	+	+	-	-	-	+	+
Vladimir region	+	+	-	-	-	+	+
Voronezh region	+	-	-	-	-	-	+
Ivanovo region	+	+	-	+	-	+	+
Kaluga region	+	+	+	+	+	+	-
Kostroma region	+	+	-	-	-	-	+
Kursk region	+	+	-	-	-	+	+
Lipetsk region	+	+	-	+	-	-	+
Moscow region	+	+	+	+	+	+	-
Orel region	+	+	-	-	-	+	+
Ryazan region	+	+	+	+	+	+	-
Smolensk region	+	+	-	-	-	-	+
Tambov region	+	+	-	-	-	+	+
Tver region	+	+	-	+	-	+	+
Tula region	+	+	+	+	+	+	-
Yaroslavl region	+	+	-	-	-	-	+
Moscow city	+	+	+	+	+	+	-

The results of the analysis showed that the recently developed strategies of regional development until 2035 (Kaluga region, Moscow region, Ryazan region, Tula region, Moscow city) are sufficiently consistent with the principles of "smart specialization", especially in

relation to the development of municipalities. At the same time, the strategic documents of other regions contain significant shortcomings:

- single-industry specialization instead of identification and selection of promising interdisciplinary and cross-sectoral priorities;
- interregional competition instead of interregional cooperation within the framework of national and global competition;
- focus on existing specialization instead of searching for emerging fast-growing promising industries (key enabling technologies);
- lack of synchronization between different levels of management due to the lack of a common methodological and regulatory framework;
- prioritization of the specialization “from above” instead of activating the initiative “from below” through entrepreneurial search;
- duplication of competencies and priorities instead of complementarity and synergy.

In addition to creating a common methodological and regulatory framework in order to promote the countries and regions of the EU in the development, implementation and review of the selected priorities of the strategy of "smart specialization" (RIS3) in 2011, Institute for Prospective Technological Studies (IPTS) has created Smart Specialisation Platform (S3). The tools of Smart Specialisation Platform are:

- Eye@RIS3 is online database of RIS3 priorities. The database is a map and contains information about the priorities of the regions. The purpose of the database is to give an overview of the selected priorities to find unique niches and potential partners for cooperation. The database contains 4 headings: general description, existing opportunities of the region, target markets and sectoral priorities at the EU level;
- ESIF-viewer is a tool to search for planned investments of European structural and investment funds;
- ICT Monitoring is a tool to search for planned investments of European structural and investment funds in the field of information and communication technologies;
- Regional Benchmarking – an interactive tool to identify structurally similar regions across Europe;
- EU Trade is fully interactive web-application for visualization and analysis of interregional trade flows and competitive positions of regions in Europe. The purpose of this tool is to assess regional assets and analyze the economic situation of the region as a fundamental step in the construction of the "smart specialization" strategy;
- R&I Regional Viewer is a tool that allows you to visualize and compare research and innovation investments across different funding channels and EU programs across EU regions.

In our opinion, in the Russian Federation, and possibly in the Eurasian Economic Union EAEU, such a comprehensive ICT tool is also necessary to provide an opportunity to obtain information, methodology, expertise and advice from national and regional policy makers, promotes mutual learning and international cooperation and to help regions to choose a cluster specialization by comparing their own capabilities with those of other territories, assessing their own competitiveness, determining target markets and industry priorities.

4. CONCLUSION

In the conditions of strengthening of economic integration and simultaneous increase of global challenges and threats new methodological approaches to a strategirovaniye of spatial development of territories on the basis of the concept of "smart specialization" are necessary.

Systematic purposeful application of the concept of "smart specialization "will help to ensure the transition to a network cluster model, the creation of new spatial formations of interdisciplinary and inter-sectoral nature, the formation of interregional areas of integrated sectors of the"new" and "traditional" economy, generating significant multiplicative effects and stimulating the competitiveness of the regional economy.

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CHALLENGES AND OPPORTUNITIES RELATED TO THE EMPLOYMENT OF UKRAINE WORKERS ON THE POLISH LABOR MARKET

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ABSTRACT

Research background: One of the main challenges on the job market is creating a so called employee market. A low unemployment rate and constantly decreasing number of people of productive age cause employers trouble in finding qualified workers and are faced with the challenge of creating solutions allowing subjects to recruit the right employees. This article is focused on the challenges that the Polish work environment is currently facing and possibilities that come with inflow of foreign labour.

Purpose of the article: The aim of this article is to examine the opinions of Polish employers in regards to hiring people from Ukraine and to try to answer whether the inflow of employees from beyond the eastern border can solve the problem of a lack of employees on the Polish job market. The research problem was examined by answering the following research questions: What is the readiness of Polish managers to hire citizens from Ukraine? What experience do Polish employers have in hiring citizens from Ukraine? What is the level of relations built between Polish and Ukrainian employees? What is the level of engagement and competence of Ukrainian workers?

Data and Methods: Quantitative research was carried out using the author's survey questionnaire. Research was directed at 600 responders with a response rate of 15%. During the interpretation of research tabular forms of data presentation, descriptive statistics and nonparametric statistics were used. The analysis was made using the statistical package STATISTICA.

Results and conclusions: Conducted research showed that one the factors contributing to the elimination of the lack of available labour is hiring employees from abroad, especially from Ukraine. Additionally it was found that in the case of hiring Ukrainian employees there were no significant mental or cultural differences.
Keywords: *employee market, unemployment, workers migrations*

1. INTRODUCTION

One of the main challenges facing the Polish labour market is the emergence of the so-called Employee Market. There is already a record low unemployment rate, and the ever falling number of people of productive age mean that employers are more and more often faced with difficulties in hiring qualified personnel and are faced with the challenge of creating solutions to help employers in Poland find the right personnel. One solution to the decreasing resources on the domestic labour market is the search for employees from foreign labour markets. This article focuses on the possibilities as well as the challenges linked to the hiring of Ukrainian employees.

The aim of our study was to research the opinion of Polish business owners on the hiring of Ukrainian citizens, and the presented results of the study are an attempt to diagnose the challenges in this area.

2. CAUSES OF MIGRATION - THEORETICAL BASIS

The movement of people is a wholly natural phenomenon and has existed since the beginning of time. Scientifically, one of the first researches to take up the topic of migration was E. G. Ravenstein who, in the 1880s, made an attempt to systemise empirical facts observed in data regarding migration. During his analysis of these statistical data, E. G. Ravenstein made several discoveries, including the inverse relationship of the size of the wave of migration and the distance covered by migrants, as well as the positive relationship between the intensity of migration and the rate of industrial advance, especially related to transport (Wojnowski, 2002, p. 407). This led him to formulate the "laws of migration" in which he proved that the most significant factors contributing to the movement of people are economic factors. (Kuciński, 2004, p.9). For a long time individuals as well as whole groups have migrated in search of not only better living conditions, but also safety and refuge from armed conflict, persecution and natural disasters (Walaszak, 2003, p.13). Over the years migration has taken on an international character – as an example, the fall of the USSR, Yugoslavia and Czechoslovakia and armed conflicts in Chechenya and Georgia at the end of the 20th century, as well as the armed conflict in Ukraine in the 21st century, brought about the movement of large groups of people. Currently, the most popular reason for leaving one's country is the search for a safe place to live and the building of a future in richer countries.

3. CHALLENGES FACED BY THE DOMESTIC LABOUR MARKET

Poland's entry into the European Union had a far-reaching effect on domestic labour resources. It allowed for the free movement of people over territories of its member states, and as such, many people took the decision to leave their country (Kowalska, 2013, pp. 123-146; Kaczmarczyk, Mioduszewska, Żylicz, 2010, pp. 219-253). The EU directive on the free movement of human capital guaranteed migrants the same rights as domestic citizens. The liberalisation of laws regarding foreigners and a difficult political and economic climate led to a rise in migration (Dykas, Misiak, 2014, pp.57-80; Wozniak-Jechorek, 2015, 00.129-151; Perło, 2015, pp.109-117). This opened the way for migrants to gain employment, promotions, security, continued migration or a return to their home country. For this reason, Polish citizens tend to emigrate abroad in search of more beneficial financial conditions. The Central Statistical Office estimates that over 2.5 million Polish citizens live abroad. The largest groups of Polish citizens can be found in the UK (685 000), Germany (614 000), Ireland (113 0000) and The Netherlands (109 000) (www.wyborcza.pl). The direction and scale of migration is dependent on factors including the ability to find employment and the wage offered. Additionally, large differences in the development of living standards in Western and Eastern Europe force people to make decisions on migration. Aside from this, technological advances contribute to the reduction of existing jobs and the creation of new jobs requiring a different skill set. Such a change in qualifications or a high level of qualifications has proven to be attainable for young people. Salaries offered are, however, not in line with the financial expectations of the younger generation. As such, young, highly qualified individuals emigrate in order to find employment - often less prestigious and unrelated to their field of study, but with a much higher salary (Dębkowska, Godlewska, Olszewska, Tomaszuk, Tomaszewska, 2017; Klimek, 2016). For Poland this means a loss of young, qualified people - the so-called brain drain. Older people, however, are often unwilling or unable to meet the challenge of changing their qualifications and starting a job in an area they are unfamiliar with. At the same time, the number of old people in society is ever increasing.

The proportion of people ages 50-74 in the age group 15-74 will increase in Poland from 37% in 2012 to 43% in 2013 and 50% in 2050, after which there is predicted to be a slight decrease to 46% in 2060. This change in composition of the workforce creates a range of challenges which are essential to soften the transition to an economy that makes more use of the potential of older employees, i.e. the so-called silver economy (Sobolewska-Poniedziałek, Niewiadomska, 2016, pp.73-92; Galecka-Burdziak, 2012, pp.109-126). Another element weakening human capital is a demographic dip. Women in Poland are giving birth to fewer and fewer children, and according to CSO statistics the population of Poland will have reached 35 993 069 by 2035. While the CSO does not have estimates for further years, international institutions do possess such estimates. According to Eurostat, the population of Poland will have decreased to 33 million by 2050. Neither is the UN's estimate optimistic. Halfway through the 20th century the population will fall to 32 million - in comparison to the current state this is a loss of 16% of its population. During this time the population of the European Union as a whole will rise, largely as a result of an influx of immigrants. Alongside Romania, Bulgaria and Slovakia, Poland will be one of the countries with the most rapidly decreasing populations (Gadomski, 2012). The most recent population estimate for Poland forecasts that as a result of changes in the intensity of births and deaths and as a result of definitive migration, the population of Poland in 2035 will be almost 36 million (Kostrzewa, Szałtys, 2009, p. 67). The CSO also draws attention to the fact that 2016 was the fifth year in a row which saw a decrease in the population of Poland, after a previous increase during the years 2008-2011. According to the CSO, such a situation can have two causes: the population decrease in 2016 was either caused by negative natural population growth – 6 000 fewer births than deaths were registered and, in addition to this, foreign definitive migration (indefinite leave to remain) was additive in 2016 and amounted to 1500 (Demografia w Polsce w 2016, 2017). Emigrants are mainly aged 20-34 (over 47% of emigrants are in this age group) – young people who want to start a family overseas. In 2017 the largest migrant groups were men aged 20-25 and women aged 25-29. The most recent estimates for the population of Poland forecast that as a result of changes in intensity of births and deaths and as a result of definitive migration, the population of Poland in 2035 will be almost 36 million (Kostrzewa, Szałtys, 2009, p. 67). The aforementioned situation generates an imbalance between the labour supply and the demand for employees on the Polish labour market. The fall in labour supply resulting from the aforementioned processes does not meet employers' demand for employees resulting from the increasing needs of society and the developing national economy (Kryńska, Kwiatkowski, 2013, p. 94). In the processing industry, 35.1% of firms (an increase of around 9% on the previous year) are in need of hiring qualified personnel. In general the demand in processing firms (without taking into account the required qualifications of personnel) rose from 13% in 2016 to 23.9% in 2017; trading companies also complain of a lack of employees - this problem is experienced by 24.4% of firms, in comparison to almost 15% in 2016 (www.rp.pl). The low labour supply forces employers to undertake actions aiming to find the required number of employees with the required qualifications for a given post. Therefore employers are forced to reach for foreign human capital.

4. THE INFLUX OF UKRAINIAN LABOUR FORCE IN POLAND

From the point of view of the Polish economy, Ukrainian citizens have the greatest immigration potential – this is as a result of the conflict with Russia as well as the neighbouring location with Poland, which is more economically developed. The political and military events that took place in June 2014 in the Donbass region have generated a greater number of foreigners entering Poland. Military actions brought about a rise in unemployment, a fall of 16% in GDP, a 50% rise in inflation and a devaluation of the national currency (hryvna) in the Ukraine, leading to an average monthly wage of 190 USD.

The war has harmed the national economy and those who live on the poverty line. The war has affected around 5 million people, of which over 10 000 have lost their lives (Ekspertyza ..., 2017, p. 10). Many Ukrainian men made the decision not to appear before the conscription panel, even though dodging military service carries a penalty of 2 to 5 years in prison (Pieniążek, 2017, p. 255). Flight abroad due to a fear of being drafted into the army initiates a wave of emigration, this is however not the only reason for the movement abroad of Ukrainians. Additional reasons for leaving the country are a lack of feeling of safety, persecution, lack of necessary assistance and indifference of other Ukrainian nationals living outside the easternmost regions, economic problems and joining family members already living in Poland. From January to November 2017, 60 517 foreigners were granted limited leave to remain, 644 were granted long-term resident status and 6920 were granted indefinite leave to remain. Limited leave to remain in connection with employment constituted 78% (Raport…, 2017, p. 9). Border traffic figures including traffic both leaving and entering the country in 2016 reached 20 million crossings over the Polish-Ukrainian border. Reasons for this include easy access to the labour market, cross-border trade and shopping trips as well as significantly lower costs of car registration. Visa-free travel opened the possibility of crossing the border for 235 000 Ukrainians. As stated by the Border Force, 2017 saw an increase of 12.9% in comparison to 2016. This is a result of Polish legislature which, in accordance with the relevant resolution of the European Parliament dated 6 April 2017, guaranteed citizens of Ukraine visa-free travel for tourism, business and family purposes - this excludes travel for the purposes of obtaining employment, however remains a great help for those Ukrainians who find themselves in a difficult political situation. In addition, new migration trends have appeared - the migration of young people and students, young specialists and business owners (Zniesienie ..., 2017, p.23).
Poland is often a destination country for emigrants from the East because of its economic, political and social attractiveness. European Commission Data confirm that for emigrants from beyond the eastern border the country in which they can find employment and earn a higher wage is the UK, closely followed by Poland. In 2014 alone, 355 000 immigrants gained leave to remain in our country, most – as confirmed by the European Commission – a were from the Ukraine and Belarus, who choose Poland when searching for new sources of income (247 000 Ukrainians, 74 000 Belarusians, slightly over 6 000 Moldolvians, over 2 000 citizens of China and 654 Russians entered Poland) (www.money.pl). Currently in Poland, according to the press secretary in the Office for Foreigners, Ukrainians make up 31% of all immigrants entering Poland (www.superbiz.e.pl). Over the last three years, the number of foreigners in possession of valid residency documents for our country (including limited and indefinite leave to remain) has risen by almost 90 000 people (by 61%) – from 146 000 to 234 000, whilst bearing in mind these figures do not include those residing Poland on the basis of visas (www.udsc.gov.pl). This offers the opportunity for employers to employ citizens of Ukraine to fill the gap left by the increasing emigration of Poles. As a result of the proximity of Ukraine to Poland, employers engage in cooperation with citizens of this country in order to quickly fill the gap in labour supply and ensure the continuity of business. This process requires knowledge and is conditioned by complicated and constantly changing legal regulations due to Ukraine being outside of the European Union. Problems of a psychological nature are also common: adaptation and acculturation, cooperation (Tomaszuk, 2018, pp. 237-248; Tomaszuk, 2017, pp. 232-243; Wasiluk, Daniluk, 2013), historical and cultural bias (Szydło, 2018; Szydło, 2017, pp. 263-277), motivation, integration, stereotypes (Tomaszuk, 2016, pp. 56-63; Moczydłowska, Szydło, 2016, pp. 203-222; Moczydłowska, Szydło, 2017, pp. 10-19) and language barriers.

5. CHALLENGES ASSOCIATED WITH EMPLOYMENT OF UKRAINIAN CITIZENS – ANALYSIS OF THE RESULTS

The research results presented below were aimed at diagnosing the challenges associated with employing Ukrainian citizens. The following research problems were formulated:

- What is the readiness of Polish managers to hire citizens from Ukrain?
- What experience do Polish employers have in the process of hiring Ukrainian citizens?
- What is the level of relations built between Polish and Ukrainian employees?
- What is the level of engagement and professional competence of Ukrainian employees?

The research was conducted in January 2018 by means of a questionnaire, which was carried out using the CAWI technique. The advantage of this technique is the fact that it can be applied to a large sample and in a short time, additionally the respondent feels anonymous, completes the questionnaire at any time and place, which provides him/her with the opportunity to freely answer questions (www.almares.com.pl/badania-ilosciowe). The research questionnaire was addressed to 600 employers or managers of Polish companies, that either employ or do not employ citizens of Ukraine[1]. 92 full answers were obtained (response rate at the level of 15%). Table 1 includes the characteristics of basic information about the respondents and companies they represented.

Table 1: Characteristics of the respondents
(own study based on the research carried out by the authors)

sex	Woman			man		
	39%			61%		
age	under 25	25-35	36-45	46-55	56-65	over 65
	2%	17%	48%	25%	7%	1%
company capital	private		state		foreign	
	51%%		28%		23%	
company business sector	service		production		commercial	
	41%		20%		18%	

In the light of the conducted research it can be concluded that Polish employers and managers are ready to employ foreigners, provided that employees meet the qualifications requirements – 65% of respondents declared that in the organizations they manage they note the fact of employing Ukrainian citizens. While analyzing the current state of employment of the Ukrainians in Polish entities (Figure 1) one can notice a large openness in this area – 73% of respondents declared that in the sectors they represent the Ukrainians are employed, every third researched person employs or employed Ukrainian citizens in their own company.

Figure following on the next page

[1] Mailing list shared by INE PAN in Warsaw.

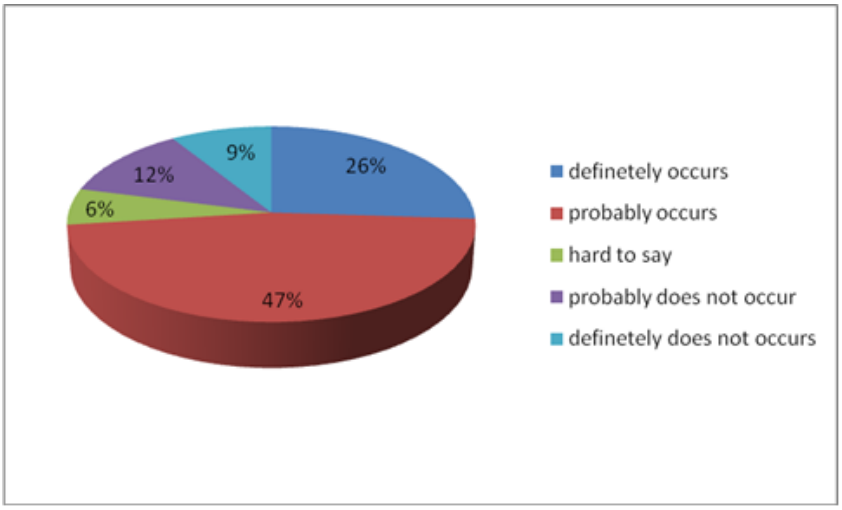


Figure 1: Employing Ukrainian workers on the Polish labor market
(own study based on the research carried out by the authors)

Reaching out to external sources, we can notice much lower declared willingness to employ Ukrainian citizens – only 39% of employers declared that "they think about employing workers from Ukraine", however there were big differences in respondents' declarations depending on the sector – the most open were production companies, slightly less – commercial ones and public sector organizations showed the lowest readiness in this aspect (www.workservice.pl). Perhaps this large discrepancy is caused by the difference in the size of human resources shortages in different markets – the largest staff shortages occur in production companies and the highest employee fluctuation occurs there. In our own studies, this type of dependence was not noticed, however the size of the sample excluded the implementation of advanced statistical analyzes. Respondents were also asked about their readiness to employ Ukrainian workers in their own enterprises. In this respect, we can see a higher level of readiness in the case of people with their own experience - the management practice works for the benefit of Ukrainian employees (Figure 2). Respondents who have already had their own experience in employing Ukrainian workers – and generally they were positive experiences – are more willing to declare their readiness to continue to employ the Ukrainians in the future than respondents who have not had such experiences.

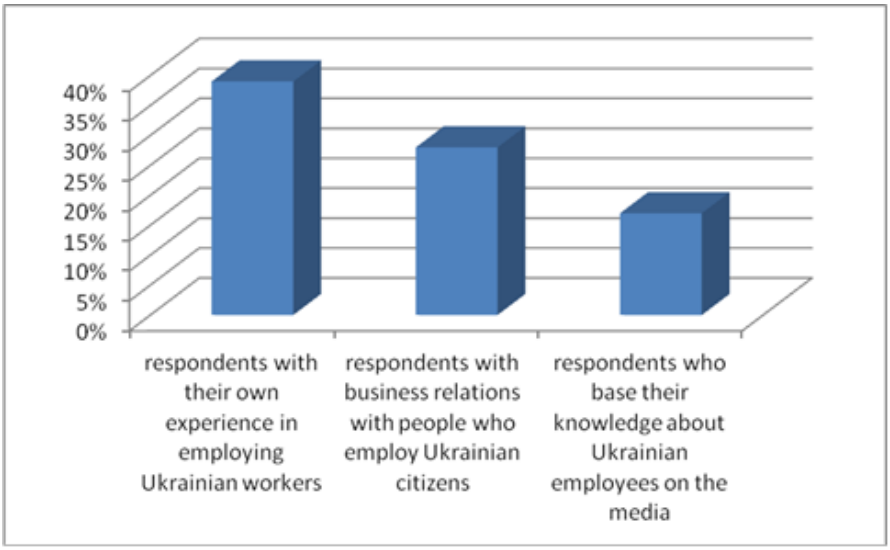


Figure 2: Readiness to employ Ukrainian workers in owned enterprises
(own study based on the research carried out by the authors)

In addition, respondents with experience in employing Ukrainian workers were asked whether they recommend employing Ukrainian workers – 90% of respondents answered in the affirmative way, no responses were strongly negative (Figure 3).

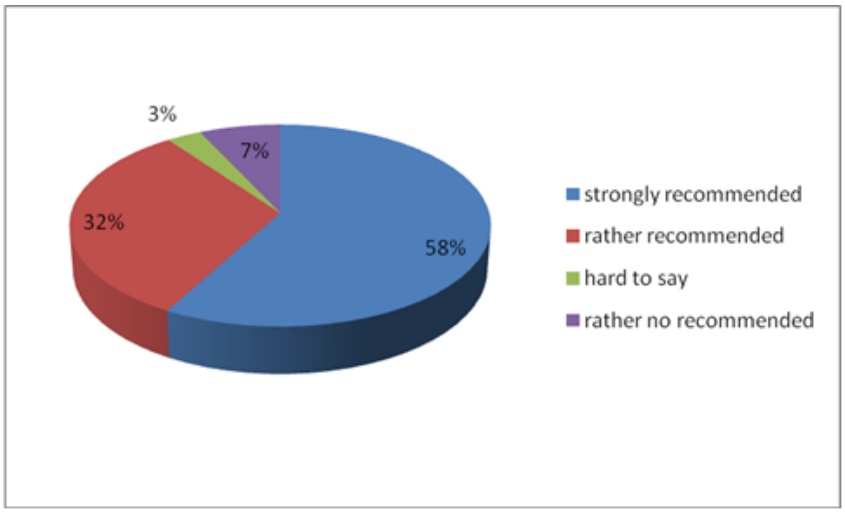


Figure 3: Rekomendation for employing Ukrainian workers
(own study based on the research carried out by the authors)

Respondents were also asked about experiences related to problems during the recruitment of Ukrainian employees – 21% of respondents did not have any problems, others considered the greatest difficulties (order by number of statements) – formal and legal factors resulting from the applicable provisions of law, difficulties in keeping employees (due to their search for better social and living conditions in Western Europe), language barrier, different mentality and work culture, and insufficient qualifications. Analyzing the strengths of Ukrainian employees (in addition to high availability), their high motivation, learning ability and high qualifications (comparable to the competence of Polish employees) can be noted in the respondents' opinions. Employing workers of other nationalities, due to cultural and mental differences, can lead to conflict situations. Therefore, respondents with experience in employing Ukrainian workers were asked if they noticed the occurence of barriers in the relations between Polish and Ukrainian employees. Exactly half think that there are no barriers to relationships, 37% notice such barriers and only 4% consider them to be significant (Figure 4).

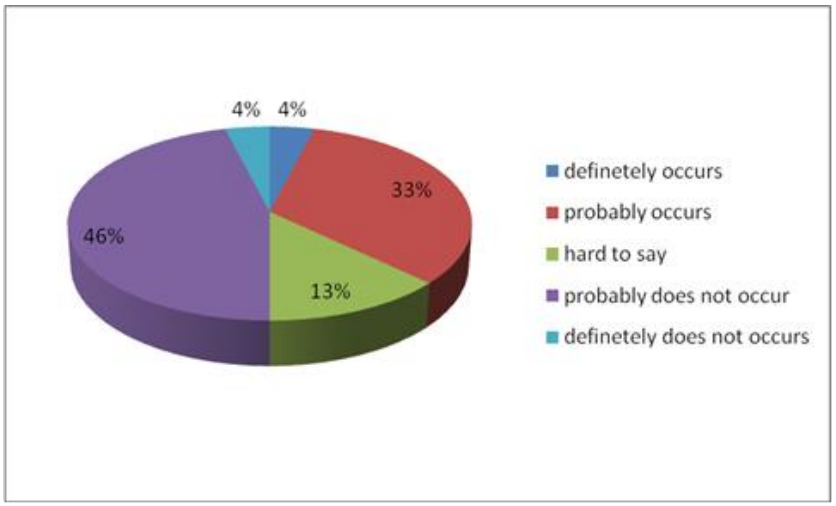


Figure 4: Occurrence of negative relations between Polish and Ukrainian employees
(own study based on the research carried out by the authors)

Analyzing the potential sources of negative relationships (on the part of Polish employees), we can notoce that the respondents most often indicated fear of losing their job, general lack of trust, demonstrating their superiority, historical past and lack of openness, which is illustrated in Table 2.

Table 2: Potential sources of negative relations on the part of Polish employees towards the Ukrainian employees (own study based on the research carried out by the authors)

Skurce	% indications
Poles' fear of losing their jobs	42
general lack of trust	38
demonstrating superiority by Poles	38
reluctance conditioned by the historical past	34
lack of openness on the part of Poles	26
sense of dissimilarity and distance towards the Ukrainians	24
perception of the Ukrainian as a conflict person	13

6. CONCLUSION

Managing an organization in the era of ever-changing environmental conditions requires the manager to possess the skill of forecasting employment for its job vacancies. The planning of human capital is the task of employers and those representing them. As Poland became a member of the EU, this process gave managers new directions of development. A high employment rate is both a cause and effect of an efficient economy. Polish businesses are more and more often faced with a shortage of employee – one of the factors leading to the elimination of this issue is the hiring of Ukrainian nationals – more and more business owners and managers and making use of this solution, which confirms the research carried out. An increasing number of businesses employs and recommends Ukrainian employees. On the one hand, the labor market forces them to do this, while on the other, this solution satisfies the needs of firms and employers searching for new sources of human resources.

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TANAP AND TAP AS PART OF AZERBAIJAN'S ENERGY STRATEGY

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ABSTRACT

Amidst the dissolution of the USSR, Azerbaijan defined two important directions of its energy strategy: 1. the provision of the energy security of Azerbaijan; 2. the contribution of Azerbaijan to the provision of the energy securities of other countries. In this regards, it was utmost important to boost the energy production in Azerbaijan, as well as developments of new opportunities in order to deliver Azerbaijan's energy resources to the international markets. On one hand, the energy resources constituted both an export-oriented commodity (the resource that one can receive benefit of its sale) and foreign policy resources (the resource that can increase the importance of Azerbaijan for other countries) for Azerbaijan. On the other hand, Azerbaijan has a potential of playing significant energy transit role for other countries thanks to the energy infrastructure that it created. Despite the various proposals of Russia and Iran, as well as the existence of the different gas purchase/sale agreement between Azerbaijan and those two countries, Azerbaijan has preferred to transport its oil and natural gas to the Western direction. The implementation of TANAP and TAP is the continuation of this policy. Actually, TANAP and TAP implies an alternative strategic success after the failure of Nabucco project. Because, main of Nabucco was the contribution to the energy security of Europe and TANAP and TAP serve the same mission.

Keywords: *Azerbaijan, energy strategy, EU, TANAP, TAP*

1. INTRODUCTION

Amidst the dissolution of the USSR, two important issues have parallelly emerged for Azerbaijan. One of them was the energy issues, other one is the Nagorno-Karabakh conflict caused from the territorial claims of Armenia towards Azerbaijan. During that period, Azerbaijan defined certain directions of its energy policy: 1. the provision of the energy security of Azerbaijan; 2. the contribution of Azerbaijan to the provision of the energy securities of other countries. In this regards, it was utmost important to boost the energy production in Azerbaijan, as well as developments of new opportunities in order to deliver Azerbaijan's energy resources to the international markets. On one hand, the energy resources constituted both an export-oriented commodity (the resource that one can receive benefit of its sale) and foreign policy resources (the resource that can increase the importance of Azerbaijan for other countries) for Azerbaijan. On the other hand, Azerbaijan has a potential of playing significant energy transit role for other countries thanks to the energy infrastructure that it created. In this context, Azerbaijan faces two significant problems. First of all, is the definition of the legal status of the Caspian Sea remain unresolved; secondly, the ongoing occupation of the territories of Azerbaijan by Armenia and the possibility of the start of new war. According to certain experts, there are interconnection between those two problems and the energy policy of Azerbaijan. In this article, we have analysed the endeavours for production of the energy resources of Azerbaijan and their delivery to international markets, as well as the energy policy of Azerbaijan in the framework of solution of the legal status of the Caspian Sea.

The author mentioned the official documents and statements of the officials in the article by considering the character of Azerbaijan's both energy policy and foreign policy in general.

2. AZERBAIJAN AND ENERGY: OFFICIAL STANCE

After Azerbaijan gained its independence again in 1991, the foreign policy, national security and military security doctrines of the country have been adopted slightly later. Although there were several uncertainties regarding Azerbaijan's both energy policy and foreign policy, as of early 1994, Azerbaijan remained loyal to its balanced foreign policy course. Unlike many countries, including its neighbours in the South Caucasus, Azerbaijan has adopted its National Security Doctrine a little bit later, in 2007. Although it was mentioned in the National Security Doctrine, the Foreign Policy Doctrine of the Republic of Azerbaijan had not been adopted yet and the Military Doctrine of the country has been adopted in 2010. Prior to that, the "Law of the Republic of Azerbaijan on National Security" has been adopted in 2004. In all adopted three documents, the essences of Azerbaijan's state approach towards the energy issues were duly mentioned. The article 17 ("ensuring the national security of the Republic of Azerbaijan in the economic area") and article 21 ("ensuring the national security of the Republic of Azerbaijan in the environmental area") of the Law of the Republic of Azerbaijan on National Security dated on 2004, touched upon the issues on natural resources. The Article 17 mentions that, in order to ensure the national security of the Republic of Azerbaijan in the economic area, following measures are taken (Law of the Republic of Azerbaijan on National Security):

- 17.2.2. the protection and consolidation of the natural resources, energy bases and transit potentials, which ensure the economic development of the country;
- 17.2.10. the integration of the Republic of Azerbaijan to the world economy through the implementation of the projects on the production and transpiration of the energy resources, as well as the operation of the transport corridor;
- 17.5. the implementation of the complex measures for the purpose of ensuring the continuous and reliable operation of the communication and energy systems… in Azerbaijan.

The National Security Doctrine of the Republic of Azerbaijan dated in 2007, has mentioned rather concrete points (The National Security Doctrine of the Republic of Azerbaijan). In the Article 1, while providing an information on national security in general, mentions that the region that Azerbaijan located in is unstable. Whereas, the rich energy resources of the Republic of Azerbaijan opens new perspectives for the development of the country, as well as makes the country an integral part of international energy supply network and the internationally significant energy source: "the development of the internationally significant transport and communication corridors and the construction of the oil and gas pipelines, which contributes to the development of the economies of both Azerbaijan and the partner countries, is a clear example of the cooperation among the countries in the region." The energy factors has been specifically highlighted in the National Security Doctrine of Azerbaijan in terms of integration into Europe and Euro-Atlantic structures and the regional development in general. The Article 4.1.2 ("Integration into Europe and Euro-Atlantic structures") has emphasized the importance of the Memorandum of Understanding on "Strategic Partnership on Energy Issues" signed between the Republic of Azerbaijan and the European Union in 2006 in terms of both the energy security of Europe and the development and modernization of Azerbaijan's energy infrastructures. The Article 4.1.5. ("Regional cooperation and bilateral relations") has particularly emphasized the ensuring significance of the energy security among the priority areas (other areas: regional security, combating the terrorism, prevention the proliferation of the weapons of mass destruction) in bilateral relations of Azerbaijan with foreign countries.

Meanwhile, the importance of three successful energy infrastructures - the Baku-Supsa, Baku-Tbilisi-Ceyhan oil export pipelines and South Caucasus Gas Pipeline (Baku-Tbilisi-Erzurum), which were realized through the energy cooperation among Azerbaijan, Georgia and Turkey and put the foundation of the vital and secure energy sources for Europe, has been mentioned as well. The National Security Doctrine of Azerbaijan has a particular chapter titled "Energy Security Policy", where it narrates that the detection and elimination of threats to the production in the oil and gas fields located in the Azerbaijani section of the Caspian basin; the construction of the oil and gas platforms; primary oil and gas pipelines and terminals is one the most important activity areas of ensuring the national security of Azerbaijan. In this regard, Azerbaijan pays great attention to creation of the energy corridor between the Caspian Sea and Black Sea and Mediterranean Sea. The Military Doctrine of Azerbaijan dated in 2010, also mentions that the global energy struggle creates risks for Azerbaijan as well (The Military Doctrine of Azerbaijan). The Article 18 of the Military Doctrine mentions that the rich oil and gas resources of Azerbaijan, as well as its geopolitical positions at the crossroads of the international trade, transport and communication lines between Europe and Asia are also risk factors. The exploration of the hydrocarbon fields in the Azerbaijani section of the Caspian Sea and their transportation to the world market, as well as active participation of Azerbaijan in the international energy projects for the development of the East-West and North-South transport corridors turned out to be a serious factor for the military security of the country and the increased the probability of being a target country for terrorist organizations. Apparently, energy factor has been frequently and enough mentioned in the official documents adopted by Azerbaijan government, which is not "eager" to openly publicize the perspectives and the risks of energy factor.

3. ENERGY POLICY OF AZERBAIJAN: PRODUCTION OF THE NATURAL RESOURCES

As a result of three years negotiations, SOCAR and AIOC has signed the "Contract of Century" or so-called "Mega Project" - "The agreement for joint development of oil in the Azeri, Chirag and Guneshli oil fields and production sharing" (or simply "The Production Sharing Agreement") on September 20, 1994 in Gulustan palace in Baku (The agreement for joint development of oil in the Azeri, Chirag and Guneshli oil fields and production sharing in the Azerbaijani sector of the Caspian Sea). Although, SOCAR was supposed to hold 30% stake in the 30-years agreement, its share decreased to 20% after SOCAR transferred 10% to LUKoil. The Agreement came into force on December 12, 1994 following the National Parliament of Azerbaijan ratified it on December 2, 1994. After the ratification of PSA, the AIOC, which was created in February 1995, was initially consisted of 11 partner companies (BP, Amoco, Unocal, Lukoil, Statoil, Exxon, TPAO, Pennzoil, McDermott, Ramco, Delta Nimir) representing six countries (Great Britain, the US, Russia, Norway, Turkey and Saudi Arabia). When SOCAR attempted to give 5% out of its 20% to Iran, it did not happen after the opposition of the Western energy companies. Thus, SOCAR has sold its 5% to US's Exxon and another 5% to Turkey's TPAO in 1995 (thus the share of TPAO in the Consortium reached up to 6.75%). Meanwhile, although LUKoil gained 10% in the "Contract of Century" and the statements of Chernomyrdin, the problems with Russia's position continued. Ministry of Foreign Affairs of Russia declared that it doesn't recognize the oil agreement between Azerbaijan and the Consortium. Russian MFA showed the legal status of the Caspian Sea as a justification and even has sent a verbal note to the UK in April 28, 1995. In the verbal note, Russia mentioned that the Caspian Sea is a shared property of the coastal countries, therefore, any activities in the Caspian should be realized due to the common decision of all coastal countries. The main aim of Russia by presenting this note was to deter the stance of BP, which as a leading company in the Consortium.

However, along with BP, the biggest companies of the US, including AMOCO was presenting in the Consortium. However, Russia did not want to deteriorate the relations with Clinton administration. Therefore, a diplomatic protest towards the UK was an example for other countries as well. Regardless of numerous pressures and protests, the Agreement have been already signed. One of the main aims of Russia and Iran in triggering the legal status of the Caspian Sea was to impede the production of hydrocarbon resources (including the cooperation on Trans-Caspian) of Azerbaijan, Kazakhstan and Turkmenistan in the Caspian. Whereas, despite all pressures Azerbaijan made a vital step by taking the risks into consideration. After the "Contract of Century", the risks of coup-d'etat and civil war emerged in Azerbaijan again in October 1994 and March 1995. However, both process doomed to failure. Japan's Itochu, which didn't participate in the first stage, has later bought the 2.45% shares of McDermott International and joined the Consortium on "Azeri-Chirag-Guneshli". Later, Itochu bought the 1.5% shares of AMOCO and augmented its shares up to 3.9%. Meanwhile, 3% and 5% shares of AMOCO has been bought by Exxon and Unocal respectively. After all those changes, the shares in the Consortium became as followings: AMOCO 17.01%, Unocal 10.04%, Exxon 8.00%, Penzoil 4.81%, BP 17.12%, Ramco 2.08%, LUKoil 10%, SOCAR 10%, Statoil 8.56%, TPAO 6.75%, Itochu 3.92% and Delta 1.68%. Whereas, in the following years, some companies sold their shares to other companies (the most sensational one was the sale of LUKoil). At the present time, the shares in the AIOC is as followings: BP (35.7828%), SOCAR (11.6461%), Chevron (11.2729%), INPEX (10.9644%), Statoil (8.5633%), ExxonMobil (8.0006%), TPAO (6.7500%), ITOCHU (4.2986%), ONGC (2.7213%) (Azeri-Chirag-Deepwater Gunashli). In the following years, new agreements have been signed for exploration of the Azerbaijan's other oil and gas fields. Overall 22 agreements - 15 agreement in the Caspian Sea, 7 in the onshore oil fields within borders of Azerbaijan - have been signed during 1994-2003. During the presidency of Ilham Aliyev, the new agreements have been added to this list. On March 16, 2016, SOCAR and Zenith Aran Oil Company signed agreement on block restoration, exploration, development and production sharing and consequently the number of Azerbaijan's oil and gas agreements signed with foreign companies reached to 32. At the moment the works are ongoing on 14 agreements and 26 companies from 20 countries are taking part in the implementation of those agreements (Oil production). Among the agreements signed after the "Contract of Century", the Agreement on "Shah Deniz" field (Norway's Statoil 26%, UK's BP 25%, SOCAR 10%, LUKAcip (Russia-Italy) 10%, Iran's NICO 10%, France's Total 10%, Turkey's TPAO 9%) signed on June 4, 1996, has of highest importance. First of all, since this field contained huge natural gas resources, it enabled Azerbaijan to a competitor to Russia and Iran in terms of natural gas export. From other hand, this project was a big project, where Iran is presented, but the US is not. The development term of project was 30 years according to the agreement (Shah Deniz). On February 27, 2009, the agreement on "Exploration, Development and Production Sharing in Absheron prospective structure" was signed. The relevant Consortium includes SOCAR (40%), France's Total (40%) and Gaz de France Suez (20%) companies. The first exploration drilling has started on January of 2011 in the framework of agreement (Absheron). In 2009, SOCAR has launched the exploration drilling in depth in the "Umid" structure of the Azerbaijani sector of the Caspian and in November 2010, the giant gas condensate field of "Umid" has been discovered. SOCAR tries to develop this field alone itself. Following the discovery of "Shah Deniz", "Absheron" and "Umid" fields, as well as launching the "Shah-Deniz II" project, Azerbaijan started to present in the energy game with natural gas along with oil. Azerbaijan's President Ilham Aliyev stated in his latest statements that Azerbaijan's proven gas reserves are 2.5 trillion cubic meters, while the estimated reserves are 4-5 trillion cubic meters (Speech by Ilham Aliyev at the ceremony to mark the 20th anniversary of the Contract of the Century and the foundation of the Southern Gas Corridor).

4. EXTRACTION OF NATURAL RESOURCES TO INTERNATIONAL MARKETS: THE TANAP AND THE TAP

The second dimension of Azerbaijan's energy policy is the extraction of the produced energy resources to the international markets. In the early 1990s, there were 7-8 options of route for transportation of Azerbaijani oil to the international energy market, however, only 5 of them were discussed (Aslanli, Hasanov, 2005, pp. 99-100):

1. Northern route: Baku-Novorossiysk;
2. Western route: Baku-Supsa;
3. Southern route: Baku-Iran;
4. Eastern route: the pipeline passing through Afghanistan and Pakistan;
5. Southern-western route: Baku-Ceyhan.

Two of them (Baku-Iran and Baku-Pakistan pipelines) have faced serious resistance since they were raised in the discussions. It is theoretically possible to transport Azerbaijani oil via Baku-Iran oil pipeline through Iranian territories to the Persian Gulf and from there to the world markets through tankers. However, all super powers, including the US rejected this proposal. The Baku-Pakistan pipeline also failed because of the security problems of the Afghanistan section of this pipeline. Therefore, as a result of negotiations between AIOC and Azerbaijani government, the number of routes for the transportation of oil was decreased to three – Baku-Novorossiysk, Baku-Supsa and Baku-Ceyhan (Baran, 2005, p. 105). After the long discussion, on October 9, 1995, official Baku decided that preliminary oil would be transported to the international markets through the Baku-Novorossiysk and Baku-Supsa pipelines. The agreements have been signed on "Baku-Novorossiysk" in Moscow on January 18, 1996 and on "Baku-Supsa pipeline" in Tbilisi on March 8, 1996. Although, one pipeline was enough for the preliminary transportation of oil, Azerbaijan had decided in the frameworks of its strategic targets to bring both pipeline on stream. Thus, both the resistance of Russia and dependence on Russia was decreased. However, the selection of the main pipeline for oil export took much longer. Azerbaijan wanted the pipeline be constructed from Baku till Turkey's Ceyhan port. However, it was not clear that which country (Iran, Armenia or Georgia) the pipeline should pass through. The "Iran" option was not accepted because of the opposition of the Western energy companies; "Armenia" option failed because of its continuing occupation of the territories of Azerbaijan (note: throughout the second half of 1990s, Azerbaijani officials has repeatedly declared that, if Armenia withdraws from the occupied territories of Azerbaijan, Baku is ready to cooperate with Armenia on international energy and transport projects.). In this case, it was decided that the construction of the Baku-Ceyhan oil pipeline would pass through Georgian territories. Baku-Ceyhan oil pipeline was extremely important for Azerbaijan from both economic and political point of view. By virtue of the realization of Baku-Ceyhan oil pipeline, the dependence of Azerbaijan and Central Asian countries on Russia in terms of oil and gas pipeline would be diminished. Secondly, the transportation of Kazakhstani and Turkmen oil through this pipeline was an additional income for Azerbaijan. Baku-Tbilisi-Ceyhan presented new opportunities for the development of trilateral cooperation model between Azerbaijan-Georgia-Turkey. Other pipeline projects in parallel to Baku-Tbilisi-Ceyhan would provide an opportunity for consolidation of relations between the Caspian states and Europe, and the serious role of the Caspian basin for Europe's energy security. The main processes on BTC was going in the second half of 1999. Particularly, thanks to the persistence of former president of Azerbaijan Haydar Aliyev and after the protests of BP and Amoco cooperation ceased, the discussions were held between the states and the Consortium. After the negotiations held during September 27 – October 13, 1999, Azerbaijan, Georgia and Turkey signed an agreement under the Bill Clinton's testimony in the OSCE's Istanbul Summit on November 19, 1999. On October 17, 2000, the Group Members of eight companies (SOCAR,

BP, Unocal, Statoil, TPAO, Ramco and Delta Hess), meanwhile AIOC members, received the title of "Main Export Pipeline Participants" (MEP) after signing the "Sponsor Group Finance and Cooperation Agreement". MEP participants signed the "Host Country Agreements" with Azerbaijan and Georgia on October 17-18, 2000. The final agreement on Baku-Ceyhan pipeline that would carry Azerbaijani oil to the world markets, have been signed in Turkey on October 19, 2000. On August 1, 2002, the "BTC Co." company, which was responsible for the construction, management of the pipeline, has been established in London and the foundation of the Baku-Tbilisi-Ceyhan oil pipeline, has been laid on September 18, 2002. The shareholders of the "BTC Co." company are followings: BP (30,10%); AzBTC (25,00%); Chevron (8.90%); Statoil (8.71%); TPAO (6.53%); ENI (5.00%); Total (5.00%), Itochu (3.40%); INPEX (2.50%), CIECO (2.50%) and ONGC (BTC) Ltd. (2.36%). The 1768 km-long BTC pipeline was put into operation in June of 2006. By the end of 2015, the BTC pipeline has delivered around 2.36 billion barrel of crude oil in total (315 million tone) (Baku-Tbilisi-Ceyhan pipeline). Kazakhstan and Turkmen oil are also included here. The Kazakhstani and Turkmen oil are also transported through the Azerbaijani railway to Georgia's Batumi port. Another pipeline that delivers Azerbaijan natural resources (precisely natural gas) to the world markets is Baku-Tbilisi-Erzurum natural gas pipeline (or South Caucasus Pipeline - SCP). On March 12, 2001, Azerbaijan and Turkey have signed an intergovernmental agreement, subsequently SOCAR and BOTAS have signed a Memorandum of Understanding for the transportation of Azerbaijani gas to Turkey. On September 29, 2001, Azerbaijan and Georgia have signed an agreement on transit and purchase of natural gas. The construction of the SCP has started on October 16, 2004; was completed on late 2006 and the gas from the Shah-Deniz field was started to pumping through this pipeline as of early 2007. Despite the various proposals of Russia and Iran, as well as the existence of the different gas purchase/sale agreement between Azerbaijan and those two countries, Azerbaijan has preferred to transport its oil and natural gas to the Western direction. The implementation of TANAP (Trans Anatolian Natural Gas Pipeline project) and TAP (Trans Adriatic Pipeline project) is the continuation of this policy. Actually, TANAP and TAP implies an alternative strategic success after the failure of Nabucco project. Because, main of Nabucco was the contribution to the energy security of Europe and TANAP and TAP serve the same mission. The first agreement on TANAP was signed on 25 October 2011 during the meeting Turkey-Azerbaijan High-Level Strategic Cooperation Council in Izmir between the two countries. However, the name of the pipeline was declared as TANAP by SOCAR Chairman Rövneg Abdullayev at the third Black Sea Energy and Economic Forum held on 17 November 2011 in Istanbul. On March 13, 2015, the TANAP Partnership Agreement was signed between the Pipelines and Petroleum Transportation Corporation (BOTAŞ) and British Petroleum (BP) regarding the distribution of shares in the Trans-Anatolian Natural Gas Pipeline Project. The signing ceremony held in Ankara was attended by Minister of Energy and Natural Resources of the Republic of Turkey Taner Yildiz, President of the State Oil Company of Azerbaijan Republic (SOCAR) Rövneg Abdullayev, BP's Regional President for Azerbaijan, Georgia and Turkey Gordon Birrell, BOTAS General Manager Mehmet Konuk, Member of the Board of Directors of TANAP Vagif Aliyev and TANAP General Manager Saltuk Düzyol. By this agreement, the partnership shares in TANAP was set as: Southern Gas Corridor Closed Joint Stock Company (SGC) - 58 percent, BOTAS - 30 percent and BP - 12 percent. On 12 June 2018, the TANAP was inaugurated at the compressor-measuring station in Eskisehir (Erdogan opens new pipeline to pump Azerbaijan gas to Europe). The ceremony was attended by the Turkish president Recep Tayyip Erdoğan, the Azerbaijani president Ilham Aliyev, the Ukrainian president Petro Poroshenko, the Serbian president Aleksandar Vučić, and the Bulgarian prime minister Boyko Borisov, as also by the head of SOCAR Abdullayev, Turkish minister of energy and natural resources Berat Albayrak, and the chief executive officer of BP Bob Dudley.

The TAP is a greenfield development consisting of the design, construction, and operation of natural gas pipeline starting in Greece at the Greek-Turkish border connecting TANAP crossing Greece, Albania and the Adriatic Sea and terminates in Italy connecting to natural gas network of Snam Rete Gas (Trans Adriatic Pipeline). TAP was selected as the shortest and most direct way to export gas from Azerbaijan to European markets. The Intergovernmental Agreement on TAP project was signed among Albania, Italy and Greece in February 2013 (Greece, Italy and Albania sign a tri-lateral intergovernmental agreement, demonstrating their full support for TAP). Although, the problems concerning the legal status of the Caspian Sea are still ongoing, however, the realization of Trans-Caspian pipeline would strongly contribute to this concept as well (Aslanli, 2017, pp. 27-51). Despite the signing of the Convention on the legal status of the Caspian Sea at the V Summit of the Heads of the Caspian littoral States in Aktau, Kazakhstan, on August 12, 2018, all problems related to the Trans-Caspian cooperation have not been resolved. In this context, the relations between the European Union and Azerbaijan as of 2000 played a greater role. The energy factor was the most-focused issue during the visits of Azerbaijani officials to European capitals, as well as during the visit of EU officials to Azerbaijan. Actually, the energy factor has even helped to mitigate the risks of deterioration of relations between Azerbaijan and the EU, including the European states because of the certain political problems (notably due to criticism on human rights). Lately, Azerbaijan has invested a part of its income received from the oil and gas revenues in the energy sectors of other countries. SOCAR owns assets, refineries, pipelines, terminals, ports, trading companies, petrol stations in Georgia, Turkey, Switzerland, UAE, Ukraine, Romania and other countries. The 66% of DESFA – Greece's national gas distribution company – has been purchased by SOCAR.

5. CONSLUSION

To sum up, today the energy policy of Azerbaijan is successfully realized in the framework of targets defined 25 years ago. Although, changing political authorities has criticized the previous governments on certain issues, however, the consistency in the energy policies is noteworthy factor. Today, by virtue of these policies Azerbaijan can ensure its energy security and plays an important role in ensuring the energy security of other countries. The energy factor constitutes the essence of Azerbaijan-Georgia-Turkey relations and meanwhile, plays a vital role in the bilateral relations between Azerbaijan and the EU's leading countries, including the Eastern European countries. Actually, Azerbaijan also experienced several problems while wanted to realize its energy strategy. Among them, resistance of Russia and Iran, as well as domestic instability were the most influential one. The withdrawal of the Russian military bases from Azerbaijan during the Elchibey administration helped Haydar Aliyev easily to conduct balanced foreign policy course and an independent energy policy successfully. During Haydar Aliyev administration, Azerbaijan always took into consideration the "Russian factor", but he has persistently continued its pro-Western energy policy. Along with the successful implementation of BTC, SCP, Baku-Supsa, the realization of TANAP also prove that policy.

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SOCIO-ECONOMIC PROBLEMS OF THE NON-OIL SECTOR IN MODERN CONDITION

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ABSTRACT
The basic directions of economic policy, implementing by the government of Azerbaijan , specific weight of forcasted income of non-oil sector in GDP, maintaining sustainable economic growth due to the increase in non-oil sector etc. on the background of unstable economic situation in the world have been researched in the article. The strengthening of achievements, and provision of the stability in the economy will be achieved by expanding the non-oil sector of the economy and its rapid development on the basis of the purposes spesified in the Development Consept " Azerbaijan 2020: Look into the future" pointed out in the article.
Keywords: *economic regulation, economic reforms, infrastructure, non-oil sector, socio-economic development*

1. INTRODUCTION

There is a need in realisation of a group of priorities for a more efficient use of the potential of the non-oil sector in Azerbaijan. Azerbaijan economy is experiencing a period of diversification in modern condition. Diversification means expansion of product types. At the same time, the term diversification is used for specify development peculiarities and directions of the national economy, grouping companies and unions by character of their activity. For example, one of the main directions of sustainable economic development is diversification of economy and various production spheres. Modern economic and technical condition of manufacturing industry requires strengthening diversification by all means. With this aim, it is important to use experience gained at the international level. The followings need to be implemented by using this experience: 1) creating a developed market infrastructure; 2) establishing state financial institutions supporting diversification of economy; 3) development of a system of economic motivation of the non-oil sector and 4) adoption of state indicative plans (programs) for diversification of the national economy and for development of the non-oil sector of the industry. The Roadmap for the national economy and main sectors of the economy approved by President Ilham Aliyev shows that two important economic development directions – ensuring substantial increase of demand to products of national producers in domestic market and expansion to foreign markets should be accepted as important priorities. From this point of view, complex and fast development of industry, agriculture, tourism, ICT and other sectors, efficient use of the potential of various sectors of the economy, expansion of production network of national goods that meet high standards, increasing types of export goods, increasing non-oil export and diversification of its export geography, ensuring access to new foreign goods markets are the main elements of acceleration of non-oil sector development (6;p.126-127).

2. REDUCTION OF THE OIL DEPENDENCE AND DIVERSIFICATION OF AZERBAIJAN ECONOMY

It is important to note that most of the big energy projects have been finalised or are under implementation. Large-scale projects have already started in the non-oil sector and processes of reducing dependence of economic development of the country on oil is observed. The process of diversification of Azerbaijan economy, increasing shares of the private sector and service sphere in GDP, accelerating development in industrial fields, including oil and gas mashinery, oil chemistry, metallurgy, machine-building, production of construction materials, agrarian sector and production of agricultural goods, increasing the role of new economic sectors – ICT, tourism and space industry, diversification of the structure of foreign trade turnover continue. Agriculture, tourism, ICT, manufacturing industry are considered as priority sectors in development of the non-oil sector in Azerbaijan. International financial institutions specifically note the importance of agriculture and tourism among these sectors. Thus, about 44 percent of employed population of the country is employed in agriculture. That is why, continuous state programs, reforms and attracting new technologies are being conducted. Asian Development Bank closely cooperating with Azerbaijan considers agriculture and tourism as leading fields in the non-oil sector of the country. The Bank considers that improving infrastructure in regions, subsidies to agricultural producers and maintaining tax concessions for them supports development of agriculture sector, which has big potential in Azerbaijan. According to calculations of the Bank, full utilisation of tourism potential of the country will lead to increase of the non-oil GDP. Thus, rich tourism potential existing in Azerbaijan and fast development of tourism infrastructure in recent years promises large income for the country in this field of the non-oil sector. Non-oil products, including electric machinery and equipment, their spare parts, chemistry products, construction materials, final weaving products, etc. currently produced in Azerbaijan are exported to various locations. With the aim of diversification and creating basis for non-oil sector development, billions of dollars were invested within development programs to suppoting small and medium size entrepreneurship, allocation of soft loans by the state to people in this business, allocation of subsities to agriculture, reconstruction of transport and communication infrastructure throughout the country. These investments gave fast return and led to large activation in the non-oil sector. With the aim of realisation of measures envisaged for economic diversification, the “State Programme for Social and Economic Development of Regions of the Republic of Azerbaijan in 2014-2018”, the “State Programme for Poverty Reduction and Sustainable Development in the Republic of Azerbaijan for 2018-2015”, the “State Programme on the Reliable Food Supply of Population in the Republic of Azerbaijan for 2008-2015” and other programmes were approved by relevant orders and decrees of the President. These programs have been successfully implemented. Government of Azerbaijan has implemented a thorough policy from 2008, when the global economic crisis began, and has succeded in minimizing negative effect of economic crisis on national economy by using necessary means and impact mechanisms. However, the drop in global prices of oil starting from 2015 and changing macroeconomic factors lead to the necessary rise of economic reforms to a qualitatively new level.(5, p 360). The main goal set in this time was to put in action the existing potential in the non-oil sector and to implement economic reforms for ensuring dynamic growth. With this aim, the Strategic Roadmap was approved by the Decree of the President Ilham Aliyev dated 6 December 2016 for flexible adaptation to the processes observed in the non-oil sector, as well as supporting the post-oil economic development model for application of new challenges and opportunities facing the industry. Strategic roadmaps set social and economic development strategy and action plan for 2016-2020, long-term vision by 2025 and targets for a period after 2025. These strategic road maps are a conceptual document that identifies future prospects of Azerbaijan's development on a profound scientific basis.

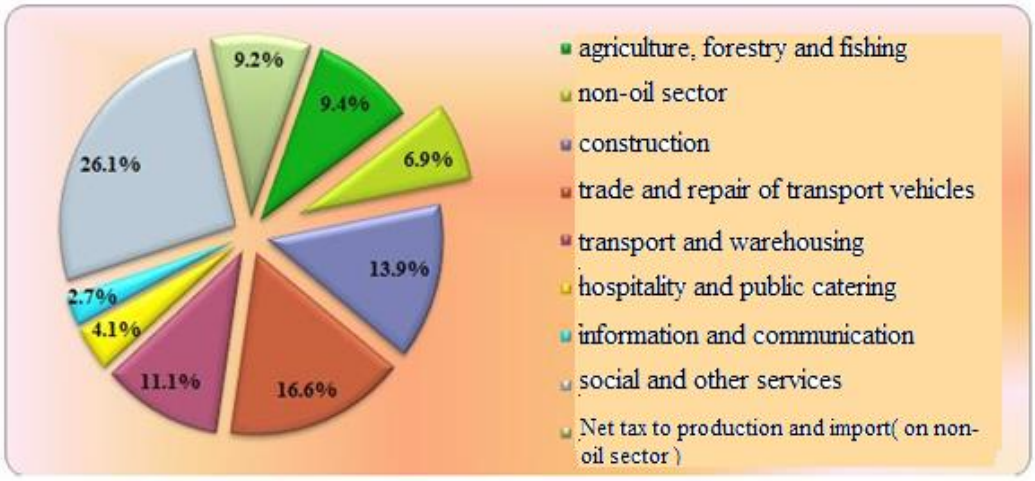
On the approved roadmap short-, medium- and long-term perspectives have been reflected for the overall national economy and 11 sectors. As a result of the implementation of the Strategic Roadmap, the structure of the industry will be improved, the non-oil industry will become one of the key driving forces of economic growth, shares of heavy industry and machine building in industry and employment will increase, the overall economic potential will be made ready for implementation of goals set for the post-2020 period, i.e. the optimal utilization of available resources, as well as the introduction of efficient production methods in enterprises will start. At the same time, financial and macroeconomic coordination will be ensured, mechanisms will be created for the provision of export incentives from the state budget to those engaged in economic activity, investment and export of non-oil products. The development of the non-oil sector is one of the key factors for strengthening the country's economic potential. As a result, successful state programs and measures taken in recent years have resulted in sustainable development of the non-oil sector, further improvement of entrepreneurship, increased investment and creation of new businesses and jobs.

3. PRIORITIES OF NON-OIL SECTOR DEVELOPMENT OF AZERBAIJAN

One of the priorities of the policy of diversification of the economy is the implementation of a regional development strategy. In this regard, the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018 has been successfully implemented and implementation of other major projects under this programme will contribute to the sustainable development of the non-oil sector and social services and social infrastructure will be further improved. At present, there are some declines in the economy of the republic, but this is primarily a matter of the sharp decline in oil prices in the world markets and the decline in its production. The results are positive in most major sectors of the non-oil sector of the economy. As there are serious improvements in non-oil industry, agricultural production, transport, information and communication services, retail trade, etc., it point to successful reforms being carried out. The importance of economic reforms in Azerbaijan has already been officially announced by management of the World's two largest financial institutions – the International Monetary Fund and the World Bank. This means that as a result of the ongoing social and economic reforms, dependence on oil industry will be minimized in the short run. At present, Azerbaijan is aiming for more confident progression in this path and for completing the post-oil period reforms within the shortest timeframe. At present, the main goal of reforms is to ensure that our state budget revenues are ensured by the non-oil sector over the next few years. After this, the change in oil prices in the world markets will not have any significance.
3,1327.2 million manat of added value was created in the non-oil sector of the economy in January-September of 2017, out of which 56.5% fell to share of social and other services, trade, repair of vehicles and construction sectors.

Figure following on the next page

Figure 1: Breakdown of added value created in the non-oil sector of Azerbaijan by sectors



In January-September 2017, the value added in the non-oil sector of the country's economy increased by 2.5% compared to the same period of the previous year. The share of added value created in the non-oil sector in GDP was 62.6%. The most positive effect on GDP was made by the non-oil sector sub-sectors like transport and warehousing, trade and repair of transport vehicles. The growth rate of the added value created in the non-oil sector was higher than the corresponding period of the previous year. 2.8% growth was in agriculture, forestry and fishing compared to the corresponding period of 2016, 1.5% in construction, 2.1% in trade and repair of transport vehicles, 5.8% in transport and warehousing, 3.2% in hospitality and public catering, 6.2% in the field of information and communication and 1% in social and other services. Recently, industrial zones have been set up to support business activity in the industrial sector and to increase employment in the industry, the necessary infrastructure built for efficient operation of entrepreneurs in industrial parks and industrial sites, which are important for industrial development, preferential regime is applied, and interest of entrepreneurs in industrial zones is increasing. At present, 5 industrial parks and 4 industrial sites have been established in the country, specializing in chemical, recycling, shipbuilding, light industry, pharmacy and other industries. Application of investment promotion mechanisms for production of export-oriented products and incentives to attracting investments give their yields. To date, 251 entrepreneurs have been issued 283 investment promotion documents, which allowed them to invest more than 2.5 billion AZN (manats) in local production and create up to 19,000 new jobs, out of which 141 enterprises with an investment value of more than 1 billion AZN (manats) are already operational. In order to ensure the development of the non-oil sector in Azerbaijan, activities need to be continued for improving the necessary structural, institutional and cultural bases, i.e. for developing commodity and money markets, preparing or engaging specialists in important specialties of non-oil sectors, forming clusters of entrepreneurs and an effective administrative system and so on. One of the directions of the state policy in the field of non-oil sector development is the creation of 79 favorable conditions for the financing of investments in the non-oil sector. One of the factors hindering the development of the non-oil sector today is high interest rates in the country. Expansion of funding sources and reduction of interest rates in the future will be of great importance for the development of the non-oil sector. It is necessary to expand the financing of the non-oil sector development in the country through preferential loans (2, p. 220). One of the key factors affecting efficiency in the non-oil sector is the development of infrastructure in the country. Development of infrastructure determines the speed and value of material, financial and information flows in the country. As the speed of the mentioned streams in the country increases and the value decreases, competitiveness of the national economy, including non-oil sectors, increases.

From this point of view, development of transport, communication, warehouse and other infrastructure sectors is one of the key factors that determine the development of the manufacturing industry and agriculture. Another aspect of increasing productivity in the non-oil sector is related to direct subsidization of their activities and provision of tax concessions. In recent years, the level of taxes has significantly decreased in Azerbaijan. Thus, the profit tax is reduced from 27 to 20 percent and social security allocations from 33 percent to about 25.66 percent. At present, Azerbaijan has limited opportunities to stimulate the development of the non-oil sector through reducing tax rates. It is crucial to create an effective stimulus mechanism to increase the investment attractiveness of the non-oil sector and ensure productivity in these fields. This mechanism should operate until non-oil fields have the opportunity to operate effectively in the free market. At present, such a mechanism is being created for agriculture sector. This sector was exempted from all taxes excluding land tax, provided with seeds, fertilizers and direct financial aid on preferential terms. At the same time, there is a need to improve the mechanism of government support to the development of manufacturing industries, especially export-orientes sectors. In addition, in order to increase the technical and economical level of local production through the purchase of foreign advanced technologies in the country's processing industry or the purchase of foreign enterprises, it would be expedient to compensate a portion of the costs of companies in these areas on the account of the state. At present, achieving high results in our country is linked to increasing competitiveness in the non-oil sector and ensuring high and sustainable economic growth. According to us, there are opportunities and ways for the Azerbaijani economy to increase its competitiveness in circumstances of global influences, provided that a steady increase is ensured for variety of export-oriented non-oil sector products. Azerbaijan exports are located in the outer periphery of commodities, and the distance to the nearest commodity in the current export basket is very large. Therefore, “natural” or “organic” diversification of the economy of Azerbaijan is very difficult. However, under the notions of "natural diversification of the economy" or "organic diversification" in Azerbaijan, there are still prospects for finding effective ways for export potential, which are not few:

- first of all, the country's natural resources, rich underground and on-the-ground resources, workforce and intellectual resources and other factors are sufficient;
- secondly, the potential of non-oil sector sectors with strong potentials should be used effectively and their export orientation should be more deeply identified (chemistry and petrochemistry, metallurgy, oil and gas machinery, agriculture, etc.)
- thirdly, the country's export sector diversification strategy should be optimized, global competition criteria should be taken into account, adequate measures should be identified, etc. (3; p.119-136)

"Azerbaijan 2020: Look into the Future" Development Concept set the target of achieving per capita non-oil exports volume of one thousand dollars by 2020. At present time, the state's approach to the private sector, the non-oil sector and the banking sector with systematic state support mechanisms and the formation of a relatively sustainable economic policy brings to the idea that, accelerating the development of various real economic sectors, diversification of ways to increase their export potential will intensify in coming years. Unfortunately, effective opportunities in this direction have not yet been thoroughly studied and the significance of this activity scheme for entrepreneurship, the process of educating businesses, including the banking sector, have not been widely promoted. Thus, each manat invested in the transport and communications sector creates an additional GDP of 4.5 manats. Each manat invested in the construction sector generates an additional GDP of 4.7 manats. The "multiplication factor" of the increase in the loan amount to the agricultural sector is about 4, etc.

In short, diversification of non-oil sector lending and financing sources is characterized as an important way to increase export potential of this sector.

4. CONCLUSION

Expansion of the influence of globalization and increase of negative effects of financial and economic crises have led to the emergence of new criteria and trends in global economy. It is also possible to claim that the trend of close development of the national economy has come to an end. From this point of view, having a diverse export potential acs as an important and strategic condition for each country. If there is a shortage of natural resources in any country or a lack of national resources, it should overcome many complex tasks in these processes in order to continue competing globally. Countries with relatively reach national and natural resources should evaluate these benefits objectively and valuedly and provide a systematic approach to the production of products and the export of products within national interests for the rational use of them. Stability of exports of commodities and products not reflecting criteria of sustainability in the global competitive environment is not possible in global commodity markets. Implementation of a range of positive strategic measures state programs in this regard suggests that the measures to form more effective, productive and effective ways of using the export potential of the non-oil sector will intensify in the near future.

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VALUE CHAIN FOR THE DEVELOPMENT OF THE EVORA REGION. THE CASE OF THE CHICKPEA PRODUCT

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ABSTRACT

The objective of this study was to perform an analysis of the chickpea value chain, considering the actors, their relationships and functions, as well as the factors that affect their competitiveness. The technique of panels and field studies was used. In this research, experts from the municipalities of Mocorito Angostura and Salvador Alvarado participated in the state of Sinaloa, Mexico. It was found that there is little relationship between the research and the producers; since there are no policies that promote the integration of the value chain and its organization. In addition, there is limited commercial promotion in international markets, where the marketing of Garbanzo is the most vulnerable link. The producers sell their production to intermediaries and these in turn to importers from different countries and it is these intermediaries who appropriate most of the utility offered by this type of product. The structuring between the supply of inputs and the final market is not the most appropriate. Power relations are hierarchical, few purchasing actors have power, information and their relationship with their suppliers. There are no horizontal links at the producer level, which does not allow improving the negotiating capacity and the organization, so it is urgent to reorder the value chain so that the producer is one of the main actors in capturing the value obtained in the market and in this way increase its profitability and competitiveness.

Keywords*: Value chain, Competitiveness, Markets, Chickpea product, Profitability*

1. INTRODUCTION

In Mexico, globalization requires entering into new mechanisms to improve competitiveness in primary production that allow for: a relevant and continuous supply (in volume and quality) to satisfy aggregate demand; increase productivity; improve post-harvest processes; reduce production costs; and improve the organization of the sector. (Peña, 2008). Agriculture is a relatively small sector in Mexico, and continues to fall with respect to the total economy with about 3.7% of the Gross Domestic Product (GDP) according to preliminary figures of the INEGI of 2014. However, this figure alone minimizes the economic and social importance of the sector. Agriculture provides employment for 13% of the population, representing some 3.3 million farmers and 4.6 million wage and unpaid family workers. Of even greater relevance for territorial development is the fact that approximately 24% of the total population lives in rural areas (Ramirez, 2016). In Mexico, 150,000 hectares of chickpea are planted, of which 80% are large white grain for human consumption, almost entirely destined for the export market, Sinaloa being the state with the highest production, particularly in the Évora region. Worldwide, Mexico ranks second as an exporter of chickpeas and third in production. (Perera, 2012). Despite its importance in the national economy, agriculture is fragmented, that is to say, agriculture is not linked to the value chain, it is totally dispersed and far from what happens not only in the national market of the food industry but in the global market; as well as limited access to distribution channels; insufficient infrastructure to articulate agricultural production; a little profitable production, which does not generate added value; it constitutes the main problem of competitiveness in primary production in Mexico; If we add to these facts the need for public policies, aimed at reducing the uncertainty regarding agricultural activities, the problem is even greater. Within this framework, the incorporation of the chickpea producers to the value chain has been proposed, as a strategy that can generate competitive advantages for

this sector that today is fragmented and disarticulated of markets, reason why rural producers are the of most value chains. If they are helped to take advantage of market opportunities, get fair agreements and obtain higher quality products, it will be possible to improve the performance of the value chain, increase rural incomes and employment and stimulate economic growth in rural areas. Consequently, if the great comparative advantages of agricultural production and the development of competitive advantages derived from factors such as the generation of value added to production are not enhanced, Sinaloa will lose market value and lead to a lower economic output than other regions. In that sense, in the Évora Region the situation is even more serious, it can be said that the primary sector of the economy faces serious challenges, since it is one of the activities with the highest risks in terms of investments, because on the one hand it has to face climatological problems, insecurity, producers are isolated from the sources of technology and are only using empirical methods transmitted from generation to generation, resulting in limited knowledge, therefore it is urgent to identify the elements that must be considered for generate added value and contribute to increase their competitiveness.

2. METHODOLOGY

The methodology used has a qualitative approach and is descriptive in nature, which led to observation and rapprochement with chickpea producers in the Évora region to later use the framing of the chickpea product value chain under the panel technique of work that is described by stages or sections categorized by processes, objects or subjects (chickpea producers).

2.1. Work panels

To build the characteristics of the chickpea value chain, the panel technique was used. The panels were formed by groups of experts from the state of Sinaloa in the most productive municipalities located in the Évora region (Angostura, Mocorito and Salvador Alvarado), to achieve the characterization of the production system, its technological level and scales within a range of productive capacity. In these groups, knowledgeable about the chickpea product value chain participated. The first fieldwork session consisted of an orientation on the fundamentals, principles and concepts around the value chain methodology in which the participants defined the first guidelines in relation to the analysis of the chain and the factors that define competitiveness. Using a consensus building process, each panel established a dialogue with the chickpea producers, in order to collect the related information from the production, as well as technical parameters and marketing systems for a base year. In such a way that the information was agreed in consensus by the panelists. Subsequently, feedback was received and strategies and recommendations were built. the assistants were representatives of the value chain of several municipalities as suppliers of inputs, producers representatives of different zones, two of the main processors in the chickpea industry, representatives of SAGARPA, UNPEG and Non-Governmental Organizations. Once the information was captured and processed and in order to ensure the validity and representativeness of the data obtained, the results were validated by the panelists.The validation was carried out through a consensus process, in which the participants of the original panel were summoned again. In this stage, the results were presented with the intention of verifying that the information was complete and correct, in addition to checking whether this information reflected the situation of the value chain. In the same way, it was verified that the panelists agreed that the prospective analysis adequately reflected their expectations on the trends of the sector. The validation process is an indispensable requirement for the publication and dissemination of results (Zavala-Pineda et al., 2012). The Chickpea value chain was modeled with the information given by the group of experts participating in two panels.

2.2. Field surveys

Fifteen surveys were conducted targeting key informants of the chain, which are part of the chickpea product system, or the National Union of Garbanzo Producers and Exporters (UNPEG) in the Évora region made up of the municipalities of Mocorito, Angostura and Salvador Alvarado. The surveys were formed with qualitative questions, which were transformed using a scale of 1 to 5 for a quantitative analysis. The questions asked were for the purpose of generating the variables described below. Conceptual map of the value chain of Garbanzo. To obtain the map of the value chain, the following levels were analyzed: Actors and functions. The agents and the functions that each of them carries out were identified through the questions asked and information search of the Garbanzo Product System. Relations and horizontal links. The interactions between agents or actors and their level of organization were described. Primary information of the International market. Relevant information of the international market, consumption and attributes of the products that are offered were analyzed. Critical support services. Information was collected related to financial services related to access to credit. Primary information of the International market. Relevant information of the international market, consumption and attributes of the products that are offered were analyzed. Critical support services. Information was collected related to financial services related to access to credit. Technical assistance services. Information was presented regarding the technical advisory service to producers. Quality management services. Instruments of a regulatory nature were sought for the transformation of products. Business Intelligence. An analysis was made with the purpose of knowing about the main competitors in the world as well as the external demand of this product in the world properties. Logistics and storage. We sought to identify the actors that participate in this area.

3. CURRENT PANORAMA OF AGRICULTURE IN SINALOA

Mexico has a territory of 198 million hectares, of which 145 million are dedicated to agricultural activity, of these, 26 million are declared as farmland and 115 million are grazing lands, and the area with forest vegetation and forests occupy 45.5 million hectares (Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food -SAGARPA-, 2007, 2013). The Mexican agricultural sector together with the food industry has a participation of 8.4 percent of the Gross Domestic Product (GDP) and employs 13.7 percent of the economically active population, with 6.7 million people. The main chickpea producing countries (Cicer arietinum L.) are Turkey, India, Pakistan and Mexico, which provide 80 to 90% of the 7 million tons of world production. In addition, Turkey, Mexico, Australia, Syria and the United States, in that order of importance, supply between 90 and 95% of the export market (Claridades Agropecuarias, 1997). In Mexico, 150,000 ha of chickpea are planted, of which 20% correspond to small grain and coffee, called 'swine' or 'fodder', and 80% are large white grain for human consumption, almost entirely destined for the market export. Worldwide, Mexico ranks second as an exporter of chickpeas and third in production. The area planted in 2006 was 118,490 Ha. With a production of 162,382 tons which was destined to the international market due to its high quality; it is undeniable that one of the main producers of food in the world is Mexico, since it has a great variety of physical and technological factors that make it develop capacities that give it preponderance in the world. The primary sector of the economy in Sinaloa plays an important role since for several periods contributes contributing to the growth of its economy and provides a variety of inputs to the food industry role that played since the fifties and from the decade of the 70 begins to suffer a serious decline.

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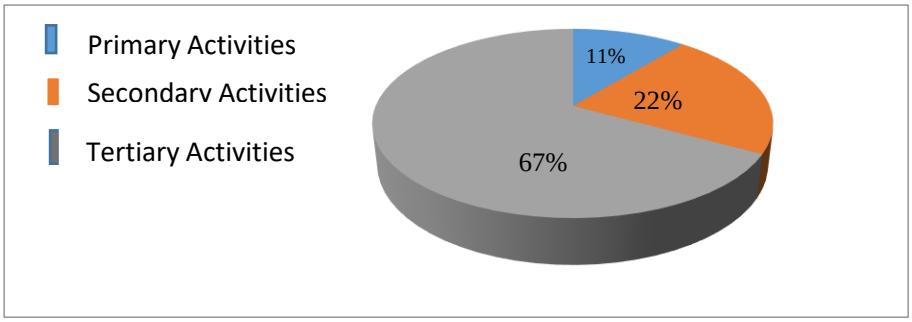


Figure 1: Main Sectors of Economic Activity in Sinaloa. Source: Own elaboration, based on INEGI. System of National Accounts of Mexico 2014.

It should be noted that one of the crops in which Sinaloa can be competitive is represented by the same chickpea that is mostly produced in the northwest of Mexico, particularly in the Évora Region and which is the object of study of the present investigation. When analyzing the chickpea production report for Sinaloa in 2015, (Amarillas, 2016), it records that the state GDP was 290 thousand 580 million dollars, of which, the primary activities had a contribution of 11.47% represented by 33 thousand 332 mdd, while secondary activities (industrial) were recorded at 21.44% of GDP and corresponds to a total of 62 thousand 289 million dollars. In addition, it is recognized that the tertiary activities (commerce and services) with an amount of 194 thousand dollars, reflected in a 67.09%. The experience curve developed by producers, particularly from the state of Sinaloa, gives us an indicator to identify all the strengths in this field, increasing the chances of competing successfully in international markets against our main competitors such as Turkey and Australia. According to Mario Barreiro Perera the care that both producers and marketers have had in maintaining the quality of the product, the high yields that are obtained, the high mechanization in both irrigation and seasonal conditions, as well as the close link between the productive sector and research, which has allowed today 95% of the cultivated area of chickpea is made with varieties generated in our country, are some of the successes that deserve to be mentioned, (Perera, 2012). As mentioned earlier, even when Sinaloa producers strive to achieve good results, which they have achieved and the chickpea is a clear effort, one of the constraints that hinder good performance is the lack of funding coupled with little aggregation of value and the limited capacity to organize in associations that allow to walk towards the added value of the agricultural production of which the chickpea is no stranger. Derived from the above, the great challenge faced by producers is the search for alternatives and solutions to overcome this aspect since the international chickpea market is a strong and expanding market.

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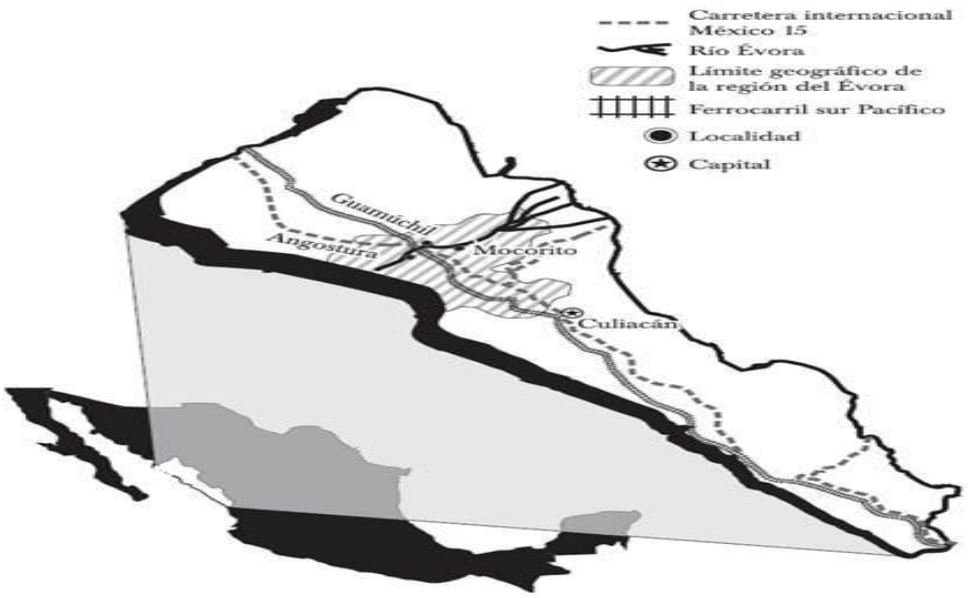


Figure 2: Map of the Évora Region: Regional modernization and centrality in the case of Guamúchil, Sinaloa, Mexico (1940-1960) (Chávez J, 2016, p. 1)

On the other hand, the case of the Évora Region, the situation is even more serious, it can be affirmed that the primary sector of Évora economy faces serious challenges, since it is one of the activities with the highest investment risks, because one side has to face climate-related problems, insecurity, the costs of inputs, market prices, marketing, financing coupled with the small capacity of small producers to organize themselves and generate greater added value to their production. Likewise, agriculture is not linked to the value chain; limited access to distribution channels; insufficient infrastructure to articulate agricultural production; a production that is not profitable, that is, it does not generate added value. However, the Évora Region has a wide variety of soils, which allows it to have a range of products subject to exploitation and important yields. Among these crops that provide good yields to the producer, we can mention the chickpea that, in addition to having acceptable yields, is considered to be the one with the highest quality worldwide. Thus, in terms of markets, it is no longer limited to a few, but according to an interview with Dr. Tomas Sánchez, president of the National Union of Garbanzo Producers and Exporters (UNPEG), it was previously thought only of Spain, Italy and Portugal as destinations, today, as they say in the Northwest region, "you can have 30 different points where to direct it". Also, the sectors of the market have been expanded, not only covering the large white chickpea, but also the one that can be industrialized in can or flour. The main leading states in the production of this legume are Sinaloa Sonora, Michoacán, Jalisco and Baja California, standing out for their quality and levels of production, the first of them especially in the Évora region located in the central-northern region of the state in the northwest of Mexico, and it is precisely there where the present investigation has its origin is here where the largest volume is obtained that is destined to the international markets mainly to Spain, Turkey and Algeria, since the per capita consumption in Mexico is 800 grams. "In the national market when a lot comes to consume about 10 percent of production, most of it is exported." In this environment, it can be said that our country, and particularly the state of Sinaloa in the Évora region, have before us the great problem of finding strategies that allow not only to produce high quality varieties, but to organize themselves in different schemes with the Firm purpose of adding value to the production of garbanzo. That is, the fundamental problem of this type of producers is that, to date, they have not been able to generate organizational schemes that allow them to pass from an agricultural to an agro-industrial economy that allows them to add value to their product.

This will also increase the price and generate an economic spill for producers, appropriate distribution channels and capitalize the regional economy by raising the quality of life of its inhabitants, this is the main problem and challenge to overcome by not only the Producers, but of government and higher education institutions who, when forming collaboration schemes, can achieve the above mentioned, it is necessary to generate added value.

4. CONCLUSIONS

The rural areas of the Évora region have valuable agricultural and human resources not yet used, which means an area of opportunity to improve the value chains of strategic products such as chickpeas; and thus face, the obstacles to unlocking the economic potential and generating employment; In this way, the value chains focused on the farmer / producer can help the rural population to leave subsistence agriculture and obtain the most lucrative profits and improve their competitive level and of course aspire to raise their quality of life. Agriculture to start contributing more to economic development requires more work in research and development, but there are no effective programs to achieve it. On the supply side, research institutes and universities do not have established programs for technology transfer that present flattering results. Therefore, there is no real link between those who are supposed to generate knowledge and those who demand it, that is, there are no programs that bring advances in research and development to the field. The above, coupled with ignorance of markets and marketing channels, high input costs as well as the low capacity of small producers to organize and generate associative schemes that allow in the medium and long term to add more value to their production; they make it more difficult for this activity to be linked to the value chain and to develop a brand of its own that will position Sinaloa's agricultural production in international markets. Therefore, it is necessary to make clear the concept of added value and value chain, therefore, we will understand value aggregation. To understand the concept of added value widely, we must emphasize some definitions that scholars have made of the subject, so we have to use this terminology (Máximo, 2014) illustrates us by referring to the Oxford Dictionary (s.f.), arguing that the concept of added value that approaches the economic, indicating that the added value is "the amount by which the value of a product increases in each stage of its production, excluding the initial costs". This definition includes as important aspects the monetary value of a product (or service) and the production process. On the other hand, from the previous paragraph it can be said that it is also taken up by the Food and Agriculture Organization of the United Nations (FAO) (2004) in a definition that, in spite of its conceptual inaccuracy with regard to the calculation of the added value, rescues two other relevant factors, the quality of the product and the consumer's perception and disposition of purchase: therefore, it can be said that "the added value comes from the difference between what it costs to put a product of certain characteristics in the market and what the customer is willing to pay for it, or what it perceives as value ". In response to the new trends in global agri-food markets and the growing demand for differentiated high-value products, from industries and consumers, was born in France in 1960 in the hands of a group of academics an instrument to improve coordination and distribution of agricultural products. The value chain is based on disaggregating in an orderly and coordinated manner the different activities of the company, in order to observe the activities that add value and observe its cost structure, to optimize them if possible and, look for ways to understand them within of competitive lace. The value chain seeks to unravel the competitive advantages of the company to enhance or rethink them; it is understood that a poorly ordered value chain hinders and obstructs the generation of competitive advantages. The term value chain may be associated with the study of relevant strategic activities to understand the behavior of costs and sources of differentiation, that is, analyze each of the components of the chain independently, identifying key points in which to earn competitiveness, to then put resources into action and generate sufficient capacities to

compete. Two useful definitions are those of Fabre (Fabre, 1994). Fabre defines the value chain as "the set of economic agents (or fractions of agents) that directly contribute to the production, processing and distribution, up to the consumer market, of the same product". It is recognized that the approach refers to the set of operations of production, processing, storage, distribution and marketing of inputs and products, including support services, also, the purpose is to formulate value-added strategies to increase the competitiveness of the chickpea of the Évora Region in the state of Sinaloa, allowing organizations to have a competitive product in the markets, developing value chains and contributing to the positioning of the product in question. The purpose on the other hand is to identify the elements that must be considered to generate added value in the chickpea product and what kind of strategies contribute to its generation in order to increase its competitiveness in this way. It is clear that it is important for the different processes to address the search for elements that add value to different goods and services and that this is retained by those who carry it out in order to create greater income opportunities, but also that this is shared among those involved in its creation, contributing thus to a higher quality of life and the development of economic and social. It is important from my point of view to consider that for agriculture to start contributing more to economic development requires more work in research and development, but there are no effective programs to achieve it. On the supply side, research institutes and universities do not have established programs for technology transfer that present flattering results. Therefore, there is no real link between those who are supposed to generate knowledge and those who demand it, that is, there are no programs that bring advances in research and development to the field. The above, coupled with ignorance of markets and marketing channels, high input costs as well as the low capacity of small producers to organize and generate associative schemes that allow in the medium and long term to add more value to their production; they make it more difficult for this activity to be linked to the value chain and to develop a brand of its own that will position Sinaloa's agricultural production in international markets. Likewise, the purpose is to formulate value added strategies to increase the competitiveness of the chickpea of the Évora Region in the state of Sinaloa, allowing organizations to have a competitive product in the markets, developing value chains and contributing to the positioning of the product in mention. Thus, the purpose on the other hand is to identify the elements that must be considered to generate added value in the chickpea product and what kind of strategies contribute to its generation to increase its competitiveness. It is worth recalling and insisting that in this context of globalization, new trends are required in the global agri-food markets, this leads to facing new challenges in the agricultural sector. In Mexico, globalization requires entering into new mechanisms to improve competitiveness in primary production that allow for: a relevant supply, in volume and quality appropriate to the demand in the markets; increase productivity; improve post-harvest processes; reduce production costs; and improve the organization of the sector (Peña, 2008). Likewise, an agriculture like Sinaloa that is not linked to the value chain, that is, that is totally dispersed and far from what happens not only in the national market of the food industry but in the global market; as well as limited access to distribution channels; insufficient infrastructure to articulate agricultural production; a little profitable production, does not generate added value; urgently requires changes to address what constitutes the main problem of competitiveness in primary production in Mexico and is an important part of this research Finally, if we consider that in the coming decades one of the most important challenges for the agri-food systems of the world, especially for developing countries, will be to ensure sufficient food supply for their population, this will lead to facing new challenges in the agricultural sector and one of the most important options to achieve success is the development of value chains and the aggregation of this to achieve the required competitiveness and aspire to better levels of wellbeing for the population within the framework of regional development.

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INTEGRATION POTENTIAL IMPLEMENTATION MODELS

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ABSTRACT

One of the trends in the development of the modern world economy is the active integration processes. The conclusion of regional integration agreements is dictated by the desire of the participating countries to create favorable conditions for the implementation of the policy of expanded reproduction, improvement of quality and ensuring the competitiveness of domestic products. There are the following models for implementing the integration potential of countries.

1. *The development of backbone industries of the participating countries. The task of the integration association is the coordination of the choice of the backbone sectors of the economy, the joint development of which will create an additional economic effect.*
2. *The joint development of mutually complementary branches of national economies in which there is production cooperation or there are potential opportunities for the formation of production chains.*
3. *Joint development of industries using the competitive advantages of the countries of the integration association. This goal is most relevant in the interaction of countries with different levels of development.*
4. *Development of industries of specialization based on the competitive advantages of the countries of the integration association. In the case when a country has a set of competitive advantages, sufficient saturation with the products of its market and the markets of the partner countries, then by agreement of the parties, the country's specialization in a particular production can be formed.*
5. *Joint development of import-substituting industries. The goal of the integration association is to identify and agree on the list of industries and sectors with high potential for import substitution, in the development of which the countries of the association are interested in reducing economic dependence on foreign markets.*
6. *Development of infrastructure for the expansion of mutual and foreign trade.*

Keywords: *economic integration, import-substituting industries, infrastructure projects, integration potential, specialization*

1. INTRODUCTION

One of the trends in the development of the modern world economy is the active integration processes taking place in it. The establishment of regional agreements is dictated by the desire of member countries to achieve certain economic benefits as a result of integration, including the creation of favorable conditions for implementing the policy of expanded reproduction, accelerating scientific and technological progress, improving quality and ensuring the competitiveness of domestic products and developing infrastructure.

The benefits of creating integration are higher, the more significant the reduction of tariffs in mutual trade will be; the deeper the differences between participating countries in the availability of productive resources and in other factors creating comparative advantages; the lower the barriers to the development of intraregional trade in relation to barriers that limit trade with third countries. In integration associations of developed countries, the share of intra-block trade is significant (for example, in the EU - 61%, NAFTA - 55%). Increased integration has a positive impact on intraregional trade in developing countries as well. For small economies, this effect can be enhanced by gaining access to large (pooled) markets. Thus, the formation of an integration cooperation strategy depends on the economic characteristics of the integrating countries, as well as on the goals that the countries creating the integration union are striving to achieve. The models of realization of the integration potential can be based on the achievement of an "economy of scale", a supplement effect, the development of infrastructure for the expansion of mutual and foreign trade.

2. REALIZATION OF THE INTEGRATION POTENTIAL MODELS BASED ON "ECONOMY OF SCALE"

Integration partner countries seek to take advantage of the "economy of scale", which implies lower costs as production increases, allows for increased market size, reduced transaction costs, and created a new combination of production factors (pro-competitive effect) (Schiff, 2003, pp. 33-34).These effects are most pronounced in the development of structure-forming and import-substituting sectors of the integrating countries.

2.1. The development of structure-forming industries

Structure-forming are understood to be the industries with the largest share in the GDP structure of countries whose production and sales of products or services have a significant impact on the state and development of economies. A prerequisite for the development of integration cooperation in this model is the presence of structure-forming sectors that are identical for all countries of the integration association, whose joint development will create an additional economic effect. For many developing economies, mainly in the African and Asian regions, agriculture remains the backbone industry, forming the bulk of the total national product and ensuring the inflow of a significant part of foreign exchange earnings. In this regard, the priority task for the countries of integration associations is the harmonization of national policies in the field of regulating industrial and agricultural development, the implementation of relevant programs and the implementation of projects aimed at increasing the potential in this area. Thus, the countries of the South Asian Association for Regional Cooperation (SAARC) are implementing a project initiated by the government of Nepal to introduce an agricultural products irrigation system. The main objective of this project is to create favorable conditions for land owners, thereby stimulating their entrepreneurial activity. The countries of the Economic Community of Central African States (ECCAS) adopted a program of regional food security, which includes the coordinated development of agriculture in the partner countries. A classic example of the backbone industry is energy, pouring out the priority direction for the development of relations between the member countries of the Shanghai Cooperation Organization (SCO). In the field of energy: the importance and relevance of establishing cooperation in the development of oil and gas fields and the construction of oil and gas pipelines is stated; "pilot projects", target groups and special working groups on the fuel and energy complex have been created (Aris, 2013, pp. 6-8). It is planned to create the Unified Energy System of the Central Asian countries, bringing together producers, consumers and suppliers of energy resources. One of the first projects in 2003 was the Kensiyak-Atyrau (China-Kazakhstan) oil pipeline, the purpose of which was to ensure the transportation of Kazakh oil to China, as well as its export to world markets.

The implementation of the next three pipelines led to the creation of the Kazakhstan-China Pipeline joint company, which was founded by Kaztransoil JSC and the China National Corporation for Oil and Gas Exploration and Development. In 2009, the Turkmenistan-China pipeline was commissioned, and the construction of a mega-project, the East-West gas pipeline, worth more than $ 2 billion, began (Alimov, 2018, p. 118). The ECOWAS countries (Economic Community of West African States) in 2004 began construction of the Nigeria-Togo-Benin-Ghana gas pipeline (West Africa Gas Pipeline), which is of particular importance to both participating countries and for the whole community. Implementation of projects for the construction of gas and oil pipelines will create the opportunity to deliver energy from Nigeria to Benin, Togo and Ghana. This subregional network will provide clean and affordable energy to the growing markets of West African countries, and will promote the development of economic integration of the association. Also in January 2005, the West African Power Pool (WAPP) program was approved, which envisages the construction of new power plants and power lines. This program aims to ensure uninterrupted supply of competitively priced energy resources as the basis for the growth of the economies of the partner countries and their competitiveness. The project also aims to promote the growth of trade (electricity) between ECOWAS countries and the flow of foreign investment.

2.2. The development of priority and import-substitutingindustries

Under import-substituting means the industry, the share of products in the import of each country of the integration association is high. Countries can combine efforts and resources to organize and develop the production of similar competitive domestic products. An example of this model is the development in the ANZCERTA countries (Australia and New Zealand) of livestock industries, in particular cattle and sheep. In order to avoid rivalry in world markets, the countries signed agreements on the implementation of a harmonized policy in the agricultural sectors, providing for coordination of the parties' actions regarding measures of state support for agricultural producers, as well as cooperation in the export of agricultural products to third countries. At the same time, the joint development of import-substituting industries is most clearly revealed in the integration associations of developing countries or countries with economies in transition. Such countries often face problems with the balance of payments, since the share of imported goods in the domestic market is significant. In such a situation, complicated by problems of unemployment and capital outflows, from the point of view of long-term development, it becomes rational to stimulate the creation and development of national production and reduce the share of foreign products in the consumption structure. In 2009, the Bolivarian Alliance for the Peoples of Our America (ALBA) countries, Nicaragua, Venezuela, Dominica, Ecuador, Bolivia and Honduras organized a joint national food industry enterprise in the framework of the food security program of the countries of our America. The new company received an initial investment of $ 49 million from the integration fund ALBA created during the global financial crisis in 2008. ALBA countries have signed agreements on the formation of mixed enterprises, which contribute to the technical equipment of the national enterprise and personnel training. The countries also agreed on joint investments in rural infrastructure and a joint policy on regional food distribution (Suggett, 2009).

3. MODELS OF REALIZATION OF THE INTEGRATION POTENTIAL, INVOLVING THE DEVELOPMENT OF COOPERATION BETWEEN COUNTRIES

With the development of regional economic integration, after a while, a situation arises in which combining only product markets becomes an insufficient basis for the competitive development of the participating countries. The potential of static integration effects, including the "scale effect", decreases. The close interrelation of partners in the sphere of industrial cooperation and the provision of national markets with mutual supply conditions stimulate the liberalization of

movement across national borders not only of goods, but also of other factors of production, including capital, labor, technology (effect of addition).

3.1. Joint development of complementary branches of national economies

Complementary are considered to be industries in which there is industrial cooperation or there are potential opportunities for the formation of production chains. Prerequisites for the creation of integration can be stable cooperative ties between economic entities of states, the presence of joint production of goods and services, as well as the specialization of integrating countries in the production of components or performing work at certain stages of the technological cycle. An example is the cooperation of Brazil and Argentina in the framework of MERCOSUR in the production of vehicles. Guided by a signed agreement, these countries jointly produce trucks and cars, while the assembly is carried out in Argentina using components from Brazil. Finished products are sold mainly in the domestic community market. Thus, according to the signed agreement, Brazil is committed to import 1.5 million Argentinean vehicles annually (Cobb, 2016). Partner countries can combine their efforts by harnessing each other's competitive advantages. This form of interaction is widely used in the interaction of countries with different levels of development, as is the case in NAFTA. Currently, NAFTA implements numerous projects in the fields of engineering, construction materials, energy, agriculture, where investments and technologies are supplied to the USA and Canada, and Mexico is the labor force. One of the leading industries in Mexico is currently the automotive industry. So, Mexico is the eighth country in the world in the production of cars and the fourth - in exports. More than 70% of exported products are sold in the markets of the NAFTA partner countries. There are 3 automobile plants of the Ford company, 3 of the Chrysler companies and 4 of General Motors located on the territory of Mexico (PwC, 2014).

3.2. The development of industries of specialization based on the competitive advantages of the countries of the integration Association

In the case when a country within the framework of an integration association has a set of competitive advantages sufficient for independent production of finished products, for saturating its market with it, as well as for the markets of partner countries and for exporting these products to the external market, then as part of an integration association to form a specialization of the country in a particular production. Specialization allows to optimize the use of available resources, to obtain economies of scale in the production, and also saves the country from the task of maintaining the development of all industries. The task of the integration association is the coordinated decision-making on the possibility of specialization in the production of certain types of products or sectors of those countries that can provide the integration association market with better, cheaper and more competitive products than the partner countries.An example of the development of industries of specialization based on the competitive advantages of the countries of the integration association is the European Union, where the following situation is observed: Germany, Italy, France, the United Kingdom specialize in the production of engineering, electrical and automobile products; on food - Italy, Spain, Greece; in the production of meat and dairy products - Denmark and the Netherlands; in the production of clothing, footwear and household appliances - Italy, Spain and Germany; in crop production and agricultural equipment manufacturing - the Netherlands; fish products - Denmark; in timber production - Finland; on coal mining - Poland and Germany; in aviation and pharmaceuticals - France, Germany, United Kingdom (Price, 1999).Thus, the development of the participating countries occurs as a result of "selective" competition within the framework of the integration bloc, to which foreign competitors from a limited number of countries (partner countries of the union) are allowed.

4. MODELS OF REALIZATION OF THE INTEGRATION POTENTIAL, INVOLVING THE DEVELOPMENT OF INFRASTRUCTURE FOR THE EXPANSION OF MUTUAL AND FOREIGN TRADE

As part of the construction and implementation of the strategy of integration cooperation, special attention is paid to the development of infrastructure. First of all, countries are making efforts to develop transport infrastructure, since the growing volumes of mutual trade in goods and services, as well as the movement of labor between integrating countries, require a corresponding increase in the capacity of international transport corridors along freight and passenger routes. An example of cooperation of the Asian region in the development of transport infrastructure is the implementation of the project "New Silk Road", which aims to connect the economies of China and the EU with a network of sea and land routes across the countries of the Eurasian Economic Union. To this aim, China has created the Silk Road Development Fund in the amount of $ 40 billion, as well as the Asian Infrastructure Investment Bank, which began operating in 2016 (Scriba, 2013). Within the framework of the project, cooperation of the governments of the countries and institutional investors is expected. The estimated land project "One Belt, One Road", estimated at $ 6.7 billion, will include the construction of roads and railways, pipelines and telecommunications networks passing through China, Central Asia and the Middle East, Russia, Belarus and the EU (Zhiltsov, 2015, p. 82). Of particular relevance is the development of information and communication infrastructure, connecting integrating countries into a single information space and creating new opportunities for cross-country interaction. To this model can also be attributed joint actions for information support, as well as for the promotion of products of an integration association to international markets. Thus, in the EU, the partnership in the field of public services is called the Public Value Service. It is represented by three components: non-market services (school education, social security), state obligations (security, justice) and services of general economic importance - communications, energy, transport, utilities. One of the largest infrastructure development programs in the EU framework is the Trans-European Networks (TEN) project, which combines energy (TEN-E), transport (TEN-T) and telecommunication (eTEN) projects (Baldwin, 1997). The role of this program is to increase the efficiency and competitiveness of the economies of European countries. Also, with the aim of stimulating research, enhancing innovation, supporting employment, the European Commission initiated a research program involving the implementation of projects in the fields of manufacturing, construction, and the automotive industry. Thus, in 2008, the international project "Joint Technical Initiatives" was launched to support research in nanoelectronics (ENIAK) and the development of onboard information systems (ARTEMIS). An example of cooperation between the countries of the European Union, Northern Europe, the Baltic States and Russia is the international project "Northern Dimension" in the framework of the Eastern Partnership. It envisages the development of interaction among countries in the following areas: public health and social welfare (NDPHS), transport and logistics (NDPTL), environmental activities (NDEP), culture (NDPC). The largest joint energy project was the Nord Stream project, which envisages the construction of a main pipeline between Russia and Germany under the Baltic Sea. This investment project is being implemented with the participation of Russian Gazprom (51%); German companies "E.ON" and "Wintershall" (15.5% each); French "GDF Suez" and Dutch "Gasunie" (9% each) (Klinova, 2012, p. 101). In 2000, the decision of the European Commission granted the project the status of the trans-European network TEN. Within the framework of G-20, it is planned to launch the Global Infrastructure Initiative, whose activities will be aimed at improving the efficiency and quality of the infrastructure being created. The program provides for the creation of a Global Infrastructure Center for the formation of cooperation between the governments of countries, institutional investors, including small and

medium enterprises, national, regional and multilateral development banks and other stakeholders in order to implement infrastructure projects.

5. CONSLUSION

To achieve the integration goal, an integration cooperation strategy is defined that determines the formation of the institutional, financial, organizational and other mechanisms necessary for the realization of the integration potential. With the development of integration processes and the achievement of goals, the strategy of integration cooperation may change. It may include new industries and areas of economic development of mutual interest. A decision may also be taken on the transition to more advanced stages of integration interaction, through which the necessary conditions and new forms of interaction between countries are being created that meet the goals and objectives set. The models of realization of the integration potential are based on achieving the "economy of scale", the effect of addition, the development of infrastructure for the expansion of mutual and foreign trade. At the same time, the main principle that countries are guided in creating the conditions for the implementation of the strategy of integration cooperation is economic feasibility. This does not imply the elimination of all barriers and the total harmonization of legislation regulating the economy, but the creation of favorable conditions for cooperation in areas relevant to the chosen strategy. Within the framework of these conditions, it becomes possible to implement specific interaction mechanisms in integrating sectors, which are aimed at the practical implementation of the strategy and the achievement of an integration economic effect.

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ASSESSMENT OF THE IMPACT OF TOURISM SECTOR ON THE ECONOMY OF AZERBAIJAN, KAZAKHSTAN AND IRAN USING INPUT-OUTPUT MODELS

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ABSTRACT

Tourism sector accounts for roughly 30 percent of global trade in services. It is known that Azerbaijan, Kazakhstan, and Iran are oil rich countries. In recent years because of the oil price went down, it compelled these countries to develop the non-oil-gas sector. The tourism sector has assumed great importance among the non-oil-gas sectors. The tourism sector is of great importance by the standpoint of accelerating the social-economic and cultural development, increasing the employment level by producing the products in the branches of the service sector, providing with foreign direct investment and currency inflows. Because tourism is included in the composition of some economic activity types, especially service fields it affords the specific difficulties to evaluate its direct and indirect effects on the country`s economy like the separate sector. We consider that Input-Output tables reflecting the inter-industrial relations and the models being worked out on these tables are very useful for conducting these types of analyses. In this study, the investments assigned to the tourism and its direct and indirect impacts to the other fields and outputs and employment level of these fields have been evaluated by means of models established on basis of Input-Output tables. Analysis of the results of simulations made with models gives the opportunity to define the efficiency of investments assigned to the tourism sector with respect to the other industries on each of the three countries separately. Afterward, the comparative analysis of the results of the models has been carried out.

Keywords: *Employment, Input-output model, investments, multiplier, tourism*

1. INTRODUCTION

One of the most significant economic sectors in the world is tourism sector. In 2017, tourism revenues in the world have been 1 trillion 317 billion 169 million US dollars. According to the UN World Tourism Organization, the number of people traveling around the world in 2017 has reached 722 million. This ratio has been the highest growth rate since 2010 in the last seven years (UNEWTO, 2018). According to the World Tourism and Travel Council, the share of the tourism sector in global GDP is 10,4%. The number of employees in this sector is 313 million and constitutes 9.9% of the total employment in the world (WTTC, 2018). The fall in oil prices in the wold market has forced some oil countries to focus on the non-oil industries, particularly on the tourism sector. Azerbaijan, Kazakhstan, and Iran, in comparison with many countries, have significantly rich sources of historical, cultural and natural beauties.

At the same time, culinary culture and hospitality attract the attention of those involved in international tourism activities. Based on the results of the input-output simulation models of Azerbaijan, Kazakhstan and Iran, the following studies were carried out:

- The multiplicative effects of the change (1 million US dollars invested in the tourism sector for these countries) in the final product on the total output and on the level of employment (creation of new jobs) have been identified, their comparative analysis has been made and their advantages have been found;
- Effects of changes in the value-added norm (in the tourism sector) on the impact of economic activity reciprocally on price and inflation levels have been investigated;
- The multiplier effect of the 1% change in the final product in the tourism industry on the final product and total output of the economic activity has been identified and comparative analysis and its advantages have been conducted.

In order to solve the issues raised, Leonitef's input-output analysis method and optimization method with linear programming have been used.

2. INPUT-OUTPUT METHOD

In the Western literature, intersectoral balance tables, called input-output tables, are widely used in the modeling of inter-sectoral interactions. The table of intersectoral balance has been compiled in the USSR for the first time in the world. The input-output tables are the result of the development of the balance method of analysis and planning. The mathematical model of intersectoral balance was developed by Wassily Leontief (Hasanli,2011, p-8). The national economy of each country in the world has a complex system operating on the background of inter-sectoral relationships. The method of analyzing intersectoral relationships helps in solving the problem of combining micro and macroeconomic models in the study of economic processes. Input-output models developed on the basis of input-output tables are of great importance in the analysis and forecasting of inter-sectoral relations of the national economy. Most of the statistics collected in this table are data on intermediate product flows. Note that the input-output tables are considered a mirror of the economy. Input-output models are one of the methods used to study the reciprocal relationships between industrial sectors of the economy at the international, national or regional level. . Input-output analysis is a method used to calculate the required output level of industries in an economy in order to fully meet the demand for the products produced. That is, the output of an industry can be an input of one or more industries or even itself. In short, the output of an industry depends on the required input of other industries and the necessary inputs of an industry partially affect the output levels of other industries. (Erdogan, 2004, p-327). The United Nations (UN) regularly develops the methodology for the creation of “Input-output” tables suitable for today's market and proposes that the amendments to be made in the Member States should also be taken into account. (Руководства по составлению таблич затрат-выпускаи их анализу, 2000, p. 304). The end of the past century after the 90s years "input-output" tables to be created on the basis of the rules of our country's social-economic system more comprehensive "Social Accounting matrices" (SAM) has been prepared. SAM is part of the System of National Accounts (SNA) and is created by state statistical institutions in a number of countries. The General Equilibrium Model (GEM), established on the basis of SAM, has an excellent structure. At present, GEM models are used in more than 100 countries around the world to analyze and anticipate the country's socio-economic indicators (including the estimate of different tax revenues of the state budget). The creation and implementation of GEM is based on Leontief’s "Input-Output" model. A number of studies have been conducted in Azerbaijan based on the "Input-output" tables. After the declaration of the independence of the Republic of Azerbaijan, the first studies on the economy of Azerbaijan were carried out by Yadulla Hasanli (Hasanli,2011), Imanov and

others (2006), Hasanli and Suleymanov (2007) with the help of the "Input-Output" tables (2006). However, these studies were carried out only on data for 2006 on 25 economic activities. With the input and output model the number of jobs increased in Azerbaijan has been examined by Abbasov and others (2007). In another study, comparative analyzes were made with the "Equilibrium Prices" model approach based on sectoral balance tables for the production and distribution of goods and services in the Azerbaijani economy in 2001 and 2006 (2010). Hasanli and Salihova (2017) examined the tourism sector's relationship with other sectors of the economy. Similar studies have also been made for the Republic of Kazakhstan. Thus, Hasanli and others have made a comparative analysis with the input-output model of the economies of Azerbaijan and Kazakhstan (2011). Then Bayzakov and others analyzed the input-output table for the years 2000-2011 (2014). Özdil and Turdaliyeva made a comparative analysis of the economies of Turkey and Kazakhstan with the input-output analysis approach and defined the sectors where the two countries could contribute to economic cooperation and trade in the benefit of the two countries if converted into cost advantages for both Turkey and Kazakhstan (2014). Many studies have been done with the input-output analysis approach for different sectors of the Turkish economy. Çakır and Bostan (2000), Dilber (2007), Sarıışık and others (2011), they investigated the effects of tourism on the Turkish economy. Hasanli and Salihova (2018) conducted a comparative analysis of the tourism sector of Azerbaijan, Kazakhstan and Turkey by using the input-output model. A similar study was conducted by Y. Hasanli and N. Moghsoudi (2011)(Moghsoudi N.,2011) for Iran.

3. THEORY AND METHODOLOGY

To achieve this goal, the Leontief input-output model (Leontief, 1979) and methodology recommended by the UN (2000) were taken as the basis. The input-output model makes it possible to determine the overall impact of various economic indicators (e.g. the final product) on other indicators (e.g. volume of commodity production, value added, level of employment, etc.). The Sectorial Input-Output table is composed of three parts:

- I part shows the mutual interconnections of sectors (rows indicates the intermediate goods, and the columns shows quantities of goods and services received from other industry sectors to perform their own production about to be intermediate consumption expenditures) (Calculation of GDP by production method);
- II part shows the components of the final product (consumption, investment, public expenditures, exports, imports) (Calculation of GDP by expenditure method);
- III part reflects the components of Value Added (wages, profit, depreciation, interest etc.), in other words, the calculation of GDP by income (Hasanli, 2011, p-17)

The input-output model of W. Leontief (Leontief, 1979) is as follows:

$$X = \mathrm{A}X + Y \qquad \text{or} \qquad X = (\mathrm{E} - \mathrm{A})^{-1}Y \quad (1)$$

Here, E- unit matrix, A- direct cost matrix. X- the total output of goods, Y – volume of final products. Inverse matrix $(\mathrm{E} - \mathrm{A})^{-1}$ - is a total cost matrix. If we denote $(\mathrm{E} - \mathrm{A})^{-1} = B$, we'll get $X = \mathrm{B}Y$. B- is a total cost matrix, also it is called Leontief matrix.

The following equation is used to determine the effect of any i-sector of the economy on the total output amount in the final product itself ($\Delta Y = (0, \dots 0, \Delta \mathrm{y_i}, 0, \dots, 0)$) and in other sectors ($\Delta X = \Delta \mathrm{x_i}, \dots \Delta \mathrm{x_{i-1}}, \Delta \mathrm{x_i}, \Delta \mathrm{x_{i+1}}, \dots, \Delta \mathrm{x_n}$):

$$\Delta X = \mathrm{B}\Delta Y \quad (2)$$

The following equation is used to determine the impact of the change in the value-added of any i-sector of the economy on the price level in itself ($\Delta Y = (0, \dots 0, \Delta v_i, 0, \dots, 0)$) and in other sectors ($\Delta P = \Delta p_i, \dots \Delta p_{i-1}, \Delta p_i, \Delta p_{i+1}, \dots, \Delta p_n$):

$$\Delta P = B^T \Delta v \qquad (3)$$

Here, the ΔP shows -price level, $the\ \Delta v - value - added\ ratio$, B is the transpose of the total expense matrix.

The effectiveness of the total output amount on the employment can be determined by the following equation:

$$\Delta L = t\Delta X \quad \text{or} \quad \Delta L = tB\Delta Y \qquad (4)$$

Here, ΔY- indicates upcoming changes in employment (ΔL) as a result of the change in final product, t- is the direct labor density coefficient, in other words, the labor force needed to output a unit in each sector (person-hour, person-day, person-year).

4. EMIRICAL ESTIMATION IN THE CASE OF AZERBAIJAN, KAZAKHSTAN AND IRAN

In this study, according to the report published by the statistical institutions the "input-output" simulations models for the 15 sectors of Azerbaijan economy (ARDSK, 2006) (ARDSK, 2006), 29 sectors of Kazakhstan economy (ASRK, 2007) and 91 sectors of Iran economy based on the "input-output" tables were carried out.

Table 1: The results of the simulation model of Azerbaijan, Kazakhstan and Iran "input-output" (effect of $ 1 million increase of final product in tourism sector on output amount and employment, 1 $ = 1.7 AZN, 1$=368.3 KZT and 1$=42105 İRR).

Countries/Sectors	Effect on output quantity		Effect on employment Person/year	
	Directly	Multiplicator	Directly	Total
	Tourism industry	Across the country	Tourism industry	Across the country
Azerbaijan	1,3	1,81	309	391
Kazakhstan	1,4	1,98	143	248
Iran	1.13	1.60	1959	2239

As can be seen from Table 1, the effect of the increase of the $ 1 million of the final product (Y) in the tourism sector in each of the three countries varies according to the country. The reason for the increase in the final product more multiplier effect (1,98) in the tourism sector in Kazakhstan that this effect is in Azerbaijan (1,81) and in Iran (1.60) in comparison with Kazakhstan, the indirect relationship with other sectors of the economy of the tourism sector can be interpreted as being weak. As a result of the same amount investment in the tourism sector in all three countries, the consequences have found that direct tourism sector will create the 391 workplaces (person-years) in Azerbaijan, in Iran and Kazakhstan respectively 248 and 2239 workplaces. Appropriate values obtained for Iran are higher than in comparison with Azerbaijan and Kazakhstan, and this stems from being low labor productivity and costs in Iran (by US dollar) compared to these two countries.

As mentioned above the number of business places to be more with the account of interest in Kazakhstan is due to the tourism sector and its products are used more than in Iran and Azerbaijan in other sectors of the economy.

Table 2: The results of the "Equilibrium Prices" simulation model of Azerbaijan, Kazakhstan and Iran (The effect of 1% increase in the value added of tourism sector on the price level of other sectors of the economy).

Countries/Sectors	Effect on price level,%	
	In tourism industry directly	Across the country
Azerbaijan	1,293	0,063
Kazakhstan	1,404	0,134
Iran	0,113	0,001

As can be seen from Table 2, the 1% increase in the value added in the tourism sector in Kazakhstan affects more the price level (inflation). Considering that Azerbaijan, Kazakhstan and Iran are petroleum countries, if the value added and or price level in the petroleum sector change, let's look at the simulation results in order to determine the effect of price changes on the price level (inflation) in the country through the "Equilibrium Prices" model.

Table 3: The results of the "Equilibrium Prices" simulation model of Azerbaijan, Kazakhstan and Iran.

Countries/Sectors	Effect on price level,%	
	Direct to oil industry	Across the country
Azerbaijan	1,0064	0,4100
Kazakhstan	1,170	0,272
Iran	1,0003	0,155

As can be seen from Table 3, the increase in the value added rate in the oil sector causes the price level (inflation) in Azerbaijan to be more affected than in Kazakhstan and in Iran. This result can be interpreted as the dependence of the Azerbaijan economy on the oil sector. In addition, the increase in the value added in the oil sector is due to the fact that the price increase in its sector is less than in Kazakhstan, because oil prices in Azerbaijan are under state control.

Table 4: The results of the "input-output" simulation of Azerbaijan, Kazakhstan and Iran (Effect of 1% increase in final product (Y) on output quantity in tourism sector).

	Multiplicator		The effect of total output amount,%		Effect on the total final product quantity,%
Countries/ Sectors	In tourism industry	Across the country	In direct tourism industry	Across the country	
Azerbaijan	1.261	1,963	0.332	0.006	0.005
Kazakhstan	0.259	1,084	0.539	0.021	0.020
Iran	1.164	1.624	0.079	1.035	0.009

According to the simulation results obtained from Table 4, the high rate of multiplier ratios of Kazakhstan both on the country and on the sector shows that the interactions of the tourism sector with other sectors of the economy are stronger than other countries and have a sustainable economy. This result is also proof that Kazakhstan is less dependent on oil than in Azerbaijan and Iran.

5. SUMMARY

It is seen that the tourism sector started to increase its activity within the national economies starting from 2000 in the world. The impact of the tourism sector on the country's economies is increasing in parallel with the acceleration of globalization and people's view of tourism as an indispensable part of welfare and living standards. An increase in the final demand of the tourism sector leads to an increase in the production of both the sector and other related sectors. As a result of the analysis from the simulation models, The reason for the increase in the final product more multiplier effect in the tourism sector in Kazakhstan, in other countries in comparison with Kazakhstan, the indirect relationship with other sectors of the economy of the tourism sector can be interpreted as being weak. As a result of the same amount growth (1 mln US dollars) of the final product, the consequences have found that direct tourism sector will create more workplaces in Iran. This is due to the low labor productivity and costs in Iran compared to the other two countries. The number of business places to be more with the account of interest in Kazakhstan is due to the tourism sector and its products are used more in other sectors of the economy. The increase in the value added rate in tourism sector by 1% affects the level of price (inflation) in Kazakhstan both in the sector and in the country. Since the Azerbaijani economy is more dependent on petroleum, the increase in the value added rate in the oil sector causes the price level in Azerbaijan to be more affected than Kazakhstan and Iran. The increase in the value added in the oil sector is due to the fact that the price increase in its sector is less than in Kazakhstan, because oil prices in Azerbaijan and Iran are under state control. Considering the results, investment in the tourism sector in all three countries has a positive impact on the country's economy and other sectors of the economy. Thus, as the amount of capital to be included in the tourism sector increases, tourism revenues will increase. Intensive promotion and investment activities should be carried out in order to get a share from these increased revenues. In order to maintain these activities in a healthy and effective manner, economic sectors participating in tourism activities should be supported and correct economic policies should be followed.

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APPENDIX

Appendix 1: Results of the "input-output" simulation models of Azerbaijan

Sectors	Code	Change of the final product, Thousand AZN	Multiplier	Change in the number of employees, person-years	Change of final product,%	Change of total output,%	Change of total employment,%
Agriculture, hunting and forestry products	1		0.0	24.2		0.0006	0.0002
Fishing Products	2		0.0	0.0		0.0002	0.0001
Mining industry	3		0.1	0.4		0.0006	0.0001
Processing industry	4		0.2	11.8		0.0002	0.0006
Electricity, gas and water	5		0.0	2.8		0.0006	0.0007
Construction works	6		0.1	12.2		0.0002	0.0006
Trade services	7		0.0	11.1		0.0006	0.0002
Tourism	8,9,11	1700	1.3	309	1.0	0.00008	0.0001
Financial intermediation, insurance and pension services	10		0.0	0.5		0.0004	0.0004
Education services	12		0.0	1.1		0.0000	0.0001
Healthcare and social services	13		0.0	0.3		0.0000	0.0001
Public adminstration and defence, compulsory social insurance services	14		0.0	13.7		0.0005	0.0006
Communal and other services	15		0.0	3.3		0.0003	0.0003
TOTAL		1700	1.8	391	0.001	0.0011	0.0010

Appendix 2: Results of the "input-output" simulation models of Kazakhstan

Sectors	Code	Change of final product, thousand tenge	Employment, person-year	Change of added value,%	Price change, %	Change of final product,%	Change of total output level,%
Agriculture, hunting and forestry	1		37		0.065		0.004
Fishing	2		0		0.001		0.005
Coal and lignite, extraction of peat	3		0		0.004		0.015
Row oil and natural gas extraction	4		0		0.055		0.009
Metal ore mining	5		1		0.016		0.021
Other mining and quarrying industries	6		0		0.004		0.031
Processing of agricultural products	7		2		0.065		0.005
Textiles industry	8		1		0.004		0.035
leather, leather products and footwear manufacturing	9		0		0.000		0.005
Wood and wood products production	10		0		0.013		0.127
Paper and paperboard production, printing	11		0		0.011		0.030
Coke, refined petroleum products and nuclear fuel production	12		0		0.037		0.049
Chemical industry	13		1		0.013		0.043
Rubber and plastics production	14		1		0.023		0.072
Production of other non-metal mineral products	15		2		0.030		0.068
Metallurgy and metal processing	16		2		0.083		0.023
Machinery and equipment repair, spare parts manufacturing	17		1		0.026		0.021
Other manufacturing industries	18		0		0.002		0.013
Production and distribution of electricity, gas and water	19		3		0.029		0.037
Construction	20		1		0.008		0.002
Trade and repair of household goods	21		47		0.034		0.126
Tourism	22,23,26	368300	143	1.0	1.404	1.0	0.002
Post and telecommunications	24		2		0.029		0.045
Financial industry	25		2		0.028		0.011
Education	27		0		0.000		0.000
Healthcare and social services	28		0		0.000		0.000
Other utlity and social services	29		1		0.002		0.004
Total		368300	248	0,70	0.134	0.042	0.048

Appendix 3: Results of the "input-output" simulation models of Iran

Products	Code	Change of final product,	Employment, person-year	Change of total employment %	Change of the mixed value	Change in price level,%	Final product change,%	Total output change,%
Products of agriculture & horticulture	1		5	0.0004		0.000		0.071
Gardening products	2		0	0.0001		0.000		0.016
Live animals and animal products	3		1	0.0003		0.000		0.046
Honey, cocoons & other products of bees and silk-worms	4		0	0.0001		0.000		0.014
Forestry and logging products	5		4	0.0059		0.000		1.106
Fish and other fishing products	6		0	0.0003		0.000		0.044
Coal and lignite; peat	7		3	0.0054		0.000		1.039
Crude petroleum & natural gas	8		2	0.0007		0.000		0.123
Iron ores and concentrates	9		8	0.0066		0.000		1.277
Copper, ores and concentrates	10		2	0.0042		0.000		0.801
Stone, sand and clay	11		4	0.0050		0.001		1.210
Other minerals	12		1	0.0041		0.000		0.852
Electricity & electricity distribution services	13		4	0.0048		0.004		0.802
water distribution services & Water	14		2	0.0023		0.001		0.370
Natural gas & gas distribution services	15		3	0.0036		0.000		0.587
Animal and vegetable oils and fats	16		0	0.0007		0.001		0.135
Other food products & beverages	17		0	0.0003		0.000		0.059
Tobacco products	18		0	0.0000		0.000		0.004
Yarns & textiles	19		3	0.0007		0.000		0.119
Wearing apparel	20		10	0.0012		0.000		0.214
Footwear & parts thereof & other leather products	21		1	0.0011		0.000		0.198
Products of wood, cork, straw and plaiting materials	22		3	0.0059		0.000		1.208
Related & matter Pulp, paper and paper products; printed articles	23		4	0.0108		0.000		1.695
Coke oven products; refined petroleum products; nuclear fuel	24		8	0.0095		0.000		1.664
Chemical materials & products	25		2	0.0031		0.000		0.588
Rubber & plastics products	26		5	0.0062		0.000		1.126
Glass & glass products	27		1	0.0017		0.000		0.543
Other non-metallic mineral products	28		3	0.0041		0.001		0.960
Furniture	29		0	0.0001		0.001		0.025
thereof products & steel & Basic iron	30		10	0.0044		0.001		0.845
Other metals	31		1	0.0042		0.001		0.792
Metal products	32		5	0.0021		0.001		0.442
General-purpose machinery	33		3	0.0050		0.001		0.904
Special-purpose machinery	34		0	0.0001		0.001		0.020
parts thereof & Domestic appliances	35		0	0.0005		0.001		0.101
Office, accounting & computing machinery	36		1	0.0006		0.000		0.101
Electrical machinery & apparatus	37		2	0.0016		0.000		0.300
Radio, television and communication equipment & apparatus	38		2	0.0085		0.001		1.511
Medical and surgical equipment & orthopaedic appliances	39		0	0.0001		0.000		0.020
Optical and precision instruments ,watches & clocks	40		2	0.0045		0.001		0.829
Motor vehicles, trailers and semi-trailers,bodies, parts and accessories thereof	41		1	0.0010		0.001		0.174
Other transport accessories & equipment & parts thereof	42		10	0.0163		0.001		2.853
Jewellery and other manufactured n.e.c	43		6	0.0025		0.000		0.398
Residential buildings	44		1	0.0001		0.000		0.078
Wholesale & retail trade services	46		11	0.0013		0.000		0.244
Lodging services	47		4	0.0170		0.000		2.981
Food & beverage serving services	48		10	0.0032		0.000		0.566
Tourism (45,49,50,53,54,55,62,88,89,90)		42105	1959	0.1408	1	0.115	1	7.885
Road transport services of freight	51		3	0.0024		0.001		0.499
Transport services via pipeline	52		1	0.0041		0.003		0.715
Postal & telecommunications services	56		3	0.0032		0.000		0.374
Banking services	57		30	0.0034		0.000		0.622
Other finantioal intermediations & auxiliary to financial intermediations	58		7	0.0028		0.000		0.517
Insurance and pension services	59		16	0.0127		0.000		2.199
Renting services involving own residential property	60		0	0.0000		0.000		0.000
Renting or leasing services involving rented or leased residential property	61		0	0.0000		0.003		0.001
basis Real estate services on a fee or contract	63		4	0.0081		0.000		0.624
machinery and Leasing or rental services concerning other household appliances & equipment without operator	64		2	0.0036		0.000		1.443
Research and development services	65		7	0.0087		0.000		0.641
Computer and related services	66		5	0.0103		0.000		1.469
Professional, scientific and technical services except computer , research and development services	67		2	0.0025		0.001		1.932
Agricultural, hunting, forestry, fishing and mining services	68		29	0.0115		0.000		0.435
Maintenance and repair services	69		0	0.0000		0.001		2.029
News agency services	70		1	0.0000		0.000		0.000
Public administration	71		0	0.0000		0.000		0.005
Military and civil defence services	72		0	0.0001		0.000		0.003
Police and fire protection services	73		0	0.0000		0.000		0.015
Compulsory social security services	74		0	0.0000		0.000		0.000
Governmental primary education services	75		0	0.0000		0.002		0.000
Privat primary education services	76		0	0.0000		0.000		0.000
Governmental general,technical and vocational secondary education services	77		0	0.0000		0.002		0.000

Privat general,technical and vocational secondary education services	78		0	0.0000		0.000		0.000
Governmental higher education services	79		0	0.0000		0.000		0.000
Privat higher education services	80		6	0.0023		0.001		0.002
Education and training services	81		0	0.0000		0.000		0.405
Hospital services	82		2	0.0002		0.000		0.001
Medical and dental services	83		0	0.0000		0.000		0.039
Other human health services	84		0	0.0023		0.000		0.000
Veterinary services	85		0	0.0000		0.001		0.397
Social services	86		0	0.0000		0.001		0.000
Religious services	87		4	0.0081		0.000		0.000
Other services	91		1	0.0024		0.001		0.430
Total		42105	2239	0.0095	0.029	0.003	0.039	1.035

PROBLEMS IN THE ENSURING MACRO-ECONOMIC STABILITY, FISCAL POLICY, PROVISION AND IMPROVEMENT OF ITS ACCOUNTING AND ANALYTICAL CHALLENGES IN THE REPUBLIC OF AZERBAIJAN

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ABSTRACT

The article considers concept of budgetary policy and explains the main forms of this policy by demonstrating its positive and negative effects on the state's fiscal system. Particular attention is given to analysis of main objectives of budget-tax or tax-budget policy, which is more commonly used in the Republic of Azerbaijan and the ways to achieve the effectiveness of budget system. Further, the paper notes the importance of applying SWOT analysis method in order to identify the strengths and weaknesses of the state, as well as its possibilities and threats. At the end, by investigating the given data on the state budget of Azerbaijan Republic, the author summarizes SWOT analysis, and constracts a table that combines the strengths and weaknesses of the fiscal policy, and also demonstrates the opportunities and threats facing the Republic of Azerbaijan.

Keywords: *Sustainable development, stability, fiscal policy, financial globalization, fiscal sustainability, tax-budget policy*

1. INTRODUCTION

As is well known, macro-level financial policy is divided into two: fiscal and monetary policies. Monetary policy pertains to money-credit policy, and fiscal policy is an actions plan that captures all the revenues and expenditures of the state (budget summary). The budget policy is an integral part of fiscal policy. However, in some literatures, financial policy implies only fiscal policy. On the other hand, western literature considers finance of enterprises and financial markets as a financial concept. Issues related to fiscal policy are studied within a public (or state) financial context. According to I.I. Mislyayeva, budgetary policy is determined effort implemented by the state party to manage the key development parameters of budget revenues and expenditures, including public debt. Group of scientists state that the purpose of the budget policy is to achieve sustainable and effective economic growth by optimizing tax collection and rational planning of budget expenditures. In some western literatures, the budget policy is understood as the main directions of the budget's revenue and expenditure policies. Here, the main direction of expenditure policy is being socially- and investment-oriented. At the same time, the substantive part of revenue policy is tax policy. The concept of budget-tax or tax-budget policy is more commonly used in the Republic of Azerbaijan, as well as in the CIS countries in general. This is primarily due to the fact that the budget policy (in the CIS countries, the budgetary policy is primarily understood as budget expenditures) in the CIS countries is determined only by the Ministry of Finance and the tax policy is determined by the Ministry of Taxes (or Tax Inspection). In the economic theory, there are two widespread forms of budgetary policy:

1. expansionist (incentive) - elimination of the periodic crisis by reduction of taxes or increase of budget expenditures,
2. restrictionist (restrictive)- restriction of the periodic growth of economy due to the securitization of budget expenditures or tax increases.

The positive results of the expansionist policy are the elimination of the cyclical crisis in a short-term, and the negative consequences are the increase in budget deficit and inflation, and tax burden on enterprises. The positive effects of restrictionist policy are the reduction in the budget deficit, the decline in inflation and tax burden on businesses, and the negative consequences are the increase in short-term unemployment and the threat of stagnation for long-run. Fiscal capacity refers to detecting and directing to the relevant destination of necessary funding in order to solve socio-economic problems facing the state in conditions of fiscal sustainability for medium- and long-term. At the same time, the difference between the current costs and possible costs should not lead to a decrease in the creditworthiness of the public sector. This explanation indicates that fiscal capacity is focused on identifying additional funding in the budget sector. The concept of fiscal capacity itself is not considered as a new concept. Fiscal capacity can be achieved as a result of the following measures : [1]

- by increasing revenue volumes, through expanding tax base, optimizing tax burden, raising tax rates,
- as a resul of grants reduction received from abroad and the volume of public debt,
- through privatization of state property,
- at the expense of increasing the efficiency of tax collection coefficient and expenses, as a result of the fiscal decentralization,
- through cutting back unproductive expenditures.

2. THE ESSENCE OF FISCAL SUSTAINABILITY

The essence of the more fiscal sustainability conception, that have been a lot of discussed lately, is the equal use of revenues from oil or other natural resources (in a percent expression) for a long-term period. In the countries such as the Russian Federation, Kazakhstan and Azerbaijan, the concept, as a rule, is defined on the basis of specified form- the principle of unchanged real expenditures (or revenues). The main indicator used is the percentage ratio of revenues from oil to non-oil GDP and the non-oil budget deficit. Oil is taken conditionally. In this case, the indicator of percentage ratio could also be used on funds received from copper and other natural resources. There should be key criteria for the effectiveness of the budget system. The issue discussed cannot be the definition of criteria for only the efficient use of resources. The key criteria are the protection of fiscal discipline, proper allocation of resources in accordance with the targets set (allocation efficiency), economic efficiency of expenditures financed by the state budget and other budgetary systems. In other words, the effectiveness of budget system, on the one hand, is considered as a proper use of revenues from natural resource, and on the other hand, it refers to debt sustainability, long-term financing of retirement costs, improving the financial performance of state-owned enterprises, and the effect of tax regimes. Experience of Azerbaijan. It is known that the fiscal sustainability of the country demonstrates the volume of all government revenues. On this basis, firstly, it is necessary to clarify the oil components in the context of the summary budget. This category includes three elements of the state budget, the State Oil Fund's revenues and loans to the energy sector. These are the following [2].

State budget:

- SOCAR's taxes paid to state budget
- AIOC's taxes paid to state budget
- Transfers of SOFAZ to the state budget

State Oil Fund:

- SOFAZ's revenues.

3. MAIN DIRECTIONS OF FISCAL POLICY OF THE REPUBLIC OF AZERBAIJAN

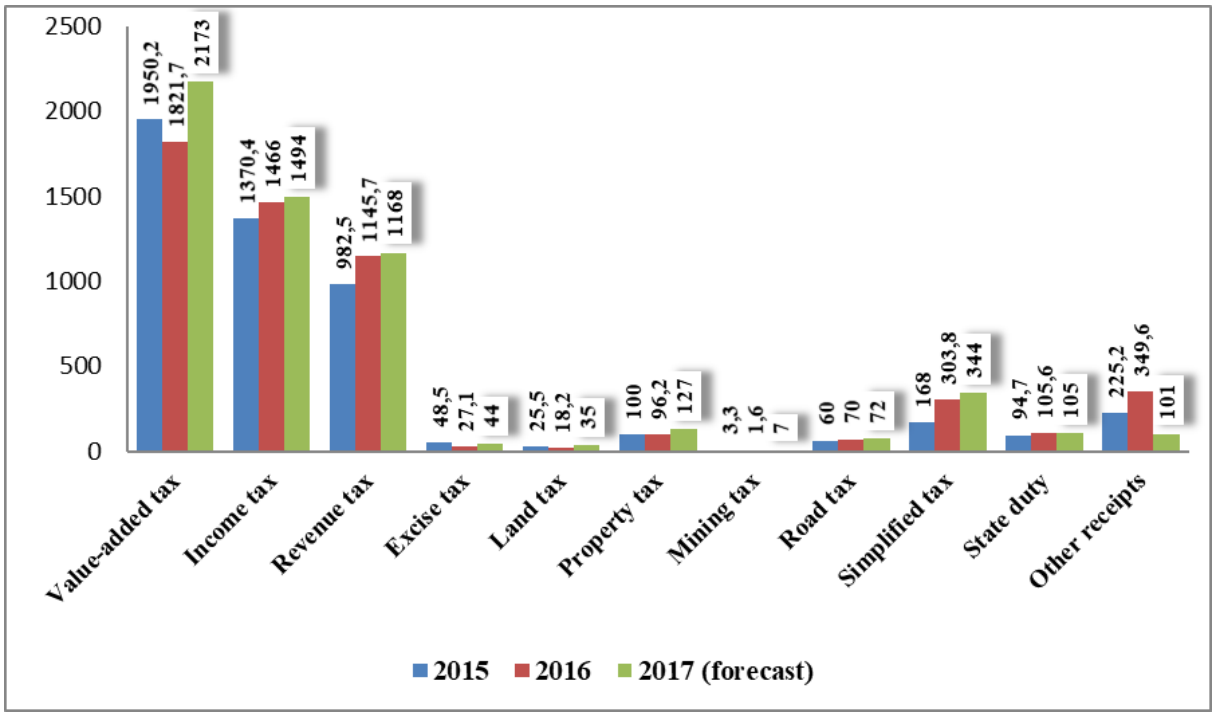
The main directions of the country's budget (including tax) policy over the past few years are as follows:

- Macroeconomic indicators guiding the budget and tax policy in accordance with the macroeconomic environment emerged in the country in 2003-2009 reflects the determination of additional income sources to the state budget, expenditure priorities, maximum utilization of funds, increasing the direct participation and impact on management of economy, ensuring its flexibility, development of entrepreneurship, strengthening of financial discipline and transparency, avoidance of inflation, improving the application of targeted social assistance, raising living standards of the population, increasing their income and employment levels, poverty reduction, development of entrepreneurship and regions, as well as, creating financial opportunities for other state measures.
- The main objective of the budget and tax policy is to ensure that the state budget is used to improve the material well-being of the population, increase incomes and employment levels, manage the country 's economy, maximize efficient use of revenues in the medium- and long-term perspective, where the high profitability of the oil sector is achieved, strengthen financial discipline and ensuring transparency, as well as to provide sustainable development of the non - oil sector, increase the role of the state budget in the regulation of the economy, maintain the stable macroeconomic situation in the country, to achieve the possible reduction of financial, economic crises and inflation pressure, and make it the main financial source and economic instrument for stimulating its dynamic development[4].
- Another key purpose of the policy is to improve the state budget expenditures, to ensure that the growth rate of current expenditures does not exceed the growth rate of the non - oil sector of the economy, to promote perspective development along with current work, to ensure establishment of competitive economy and infrastructures, to increase the share of domestic resources in the investments attracted to the economy, and to afford the transition to the distribution of funds through medium-term programs. Minimizing tax discounts, expanding taxpayer circle, and continue efforts in order to reduce tax rates, in accordance with the international practice, are also among the main priorities.
- Complex macroeconomic measures have been taken to ensure economic growth in 2003-2010, to increase financial guarantee of state program for elimination of poverty and economic growth, to develope entrepreneurship, which is of particular importance to the regions, stimulate the export-oriented product production, as well as to meet the population's demand for food products at the expense of local sources through the development of the agriculture sector.

In 2016, The Ministry of Taxes contributed 7.15 billion manats to the state budget, while the forecast was estimated at 7.10 billion manats. During the reporting period, 77.05 percent of the taxes included to the budget was through non-oil sector and 22.95 percent- oil sector [4]. Compared to the same period of 2015, the total amount of tax revenues to the budget from non-oil sector increased by 7.5 percent (377 million manats). If we analyze the performance of tax revenues on payments in 2016, we can see that total tax revenues are mainly formed by VAT and income tax. Also, the increase in other payments, especially in revenue tax, had also affected the general tax receipts.

Figure following on the next page

Figure 1: Non-oil tax receipts, mln. manats



It is possible to observe the decrease in transfers from the AR Oil Fund in the structure of budget revenues for 2016. While the share of transfers from the Oil Fund in the budget revenues in 2015 was 47.4 percent, in 2016 this figure dropped by 3.9 percent and was 43.5 percent. In 2016, 65.9% of state budget expenditures were directed to current expenditures, 24.1% to capital expenditures, and 10.0% to the services related with state debt and liabilities. Also, 35.2% of these expenditures were directed to the financing of social expenditures, i.e. labor payment fund, pensions and social benefits, medicines and food costs and this is 10.1 % more, in comparison with the same spendings in 2015. The total volume of the state budget deficit is 241.2 million manats.

Figure 2: The structure of state budget revenues in 2016

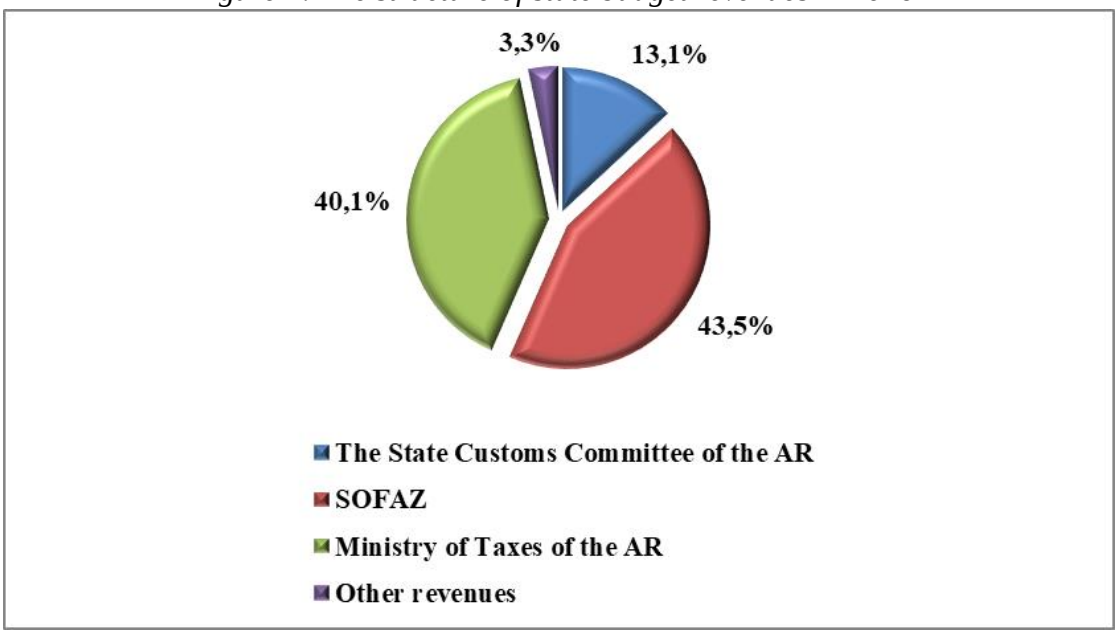
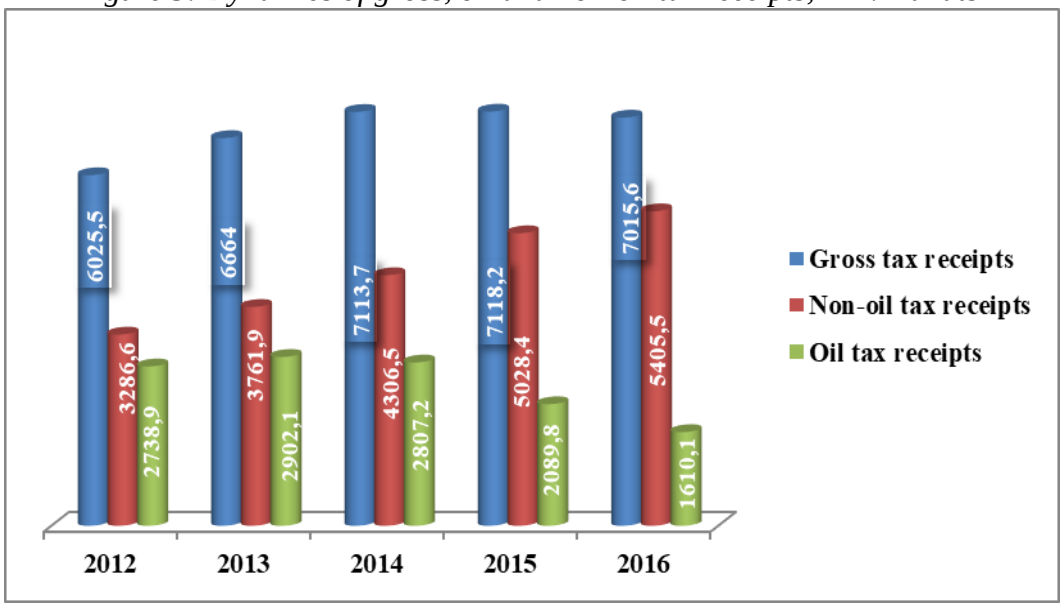


Figure 3 demonstrates the structure of tax revenues by oil and non-oil sector in tax payments to the state budget during the years of 2012-2016. Here we can see clearly that the volume of tax revenues by non-oil sector is steadily growing. Although, revenues from oil and non-oil sector in total tax revenues amounted to approximately the same volume in 2012, there was a significant increase in non-oil sector revenues in 2016.

Figure 3: Dynamics of gross, oil and non-oil tax receipts, mln. manats



4. FORMATION STEPS OF TAX SYSTEM IN THE BUDGET ORGANIZATION PROCESS OF AR

4.1. SWOT analysis of fiscal policy

Several concepts and methods currently applied in fiscal policies have been taken from the private sector. One of these methods is SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. The purpose of applying this method is to identify the strengths and weaknesses of organization, as well as its possibilities and threats. SWOT is divided into internal (strengths and weaknesses) and external (opportunities and threats) blocks. The streigths of Azerbaijan's fiscal policy are a low level of tax rates, the level of public debt, including external debt, budget deficit and tax burden being below the limit accepted in international experience, as well as, significant increase in the share of direct taxes in recent years, and existance of a specific body (Chamber of Accounts) that can audit the budget. At the same time, significant dependance on oil revenues (including the transfers from State Oil Fund), insufficient funding of social insurance deductions to meet SSPF costs, increase in external debt per capita, raising the debt limit by 3 times, predicting the overall budget deficit at the rate of 10% of GDP can be regarded as weaknesses of Azerbaijan’s fiscal policy. The opportunities facing the fiscal policy of Azerbaijan are the expansion of the tax base through development of the real sector, especially the non-oil sector, as well as coordination of budget expenditures with socio-economic targets and increase in effectiveness of expenditures as a result of application of the targeted program budget conception. The threats facing the fiscal policy of Azerbaijan are the SOFAZ’s transfers to compensate significant budget losses as a result of sharp fluctuations in crude oil prices on the world market, credits, subsidies, loans and dotations to state-owned enterprises suffered during the global financial crisis and increase in the budget deficit and expenditures with this regard. The following table summarizes SWOT analysis, that combines the strengths and weaknesses of the fiscal policy, as well as the opportunities and threats facing the Republic of Azerbaijan.

Table 1: SWOT analysis summary

	Opportunities	**Threats**
Strengths	Extension of the tax base for the medium- and long-term period as a result of full or partial exemption of taxes for non-oil sector	Making amendments within the expenditure items of functional and economic classification without exceeding the limit of existing budget expenditures, in order to reduce the likelihood of transfering funds from the budget to the state-owned enterprises suffered during world financial crises
Weaknesses	It is possible to take advantage of the opportunity of long-term use of oil revenues as a result of applying the principle of non-exchangeable real revenue (or expenditure), used as one of the main forms of fiscal sustainability. At the same time, this condition would reduce the dependence of the state budget on oil.	The "golden rule", defined by the legislation for maintaning the overall budget and public debt limit at a normal level (for making changes every year) - defining the limits of deficit and debt for a long-term period.

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STATISTICAL STUDY OF INTERNATIONAL MIGRATION OF POPULATION AND LABOR RESOURCES

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ABSTRACT
In this article, based on the latest data obtained from the UN, the Organization for Economic Co-operation and Development (OECD) and the State Statistical Committee of the Republic of Azerbaijan, the current state of the international migration of population and labor resources worldwide is statistically investigated, the issues related to the profiles and trends of international migration of population and labor resources, the value and benefits of labor migration, the age and sex of migrants, the social implications of emigration, and the regulation of migration are analyzed, and the influence degree of key factors impacting on the formation of migration flows is evaluated by the way of creating an econometric model with the help of SPSS software package on the basis of statistical data.
Keywords: *analytical analysis, international migration, econometric model, statistical analysis*

1. INTRODUCTION

The process of international migration of population and labor is one of the topical issues of the contemporary world. So, in the modern world, migration is a multifaceted process that affects all aspects of society. Migration has become a large-scale social process rather than the unstable displacement of population due to the reasons such as military and religious conflicts, as well as search for new jobs. Why do we need a statistical study of migration? In fact, the growth rate of migration directly influences the population size, its demographic characteristics, its national and religious composition, the quantity and quality of labor resources, the formation of labor market, as well as the living standards of the family members of migrants in their native countries. Moreover, migration is considered to be one of the most complex elements of international economic relations as the object and the observation unit is human, and has economic, demographic, social, psychological impact on both donor and recipient countries. The economic consequences of migration are reflected in the fact that migrants are active participants in the labor market and migrants' money transfer in many countries is a crucial factor for the growth of income of population and the development of these countries. If there is no reliable information on migration (especially if its volume is significant), it is difficult to predict the population size (Statistics on international migration,2011, p 11). One of the most important issues in the study of migration processes is the consideration of problems with respect to labor resources flow. The essence of the international migration of the labor force consists of the movement (migration) of labor resources from one country to another in order to make a more favorable employment in the country. Labor migration is an objective process that is inherent in the market economy. Migration is also an objective process like capital flow between countries, expansion of foreign economic relations, international economic integration, etc. In accordance with market laws, labor resources seek a place of application to gain the maximum profit. Such a place is usually standing outside of the homeland and so, they have to change their permanent residence. Unlike other economic resources, labor resources are both objects and subjects of international economic relations.

2. LITERATURE REVIEW

I.V. Ivakhnyuk (Ivakhnyuk ,2011, pp. 29-36) states that the international migration of the population can be one of the most important sources of economic growth or the cause of the socio-economic crisis in any country. In recent years there have been considerable changes in use and structure of the migration flows. M.B. Denisenko, V.A. Iontsev and B.S. Khorev (Denisenko, Iontsev , Khorev,1989, p 96)show that so far, it has not been possible to establish a single methodological approach in order to describe migration processes. S.V. Ryazantsev, V.A. Iontsev, L.B Karacurina *et al.* (Rybakovsky L.L., Iontsev V.A., Karachurina L.B. et al. ,2001)consider that existing theories have independently developed, that is, they describe only some aspects of migration. However, these theories play a major role in understanding the essence of modern migration processes and their impact on the labor markets. Different opinions have been suggested about the identification and classification of the factors affecting the population migration. P. E. Prokhorov and N.D. Epstein (Prokhorov , Epstein ,2016, pp 9-18) claim that some researchers divide factors affecting migration into attractive or pushing, economic or non-economic, objective or subjective factors. For example, the well-known scientist V.I. Perevedentsev (Perevedentsev,1975, pp 107-108) divided the factors affecting the migration of the population into natural and public / social factors and showed that these factors had emerged from the territorial differences, which are considered to be substantial for living standards. In his opinion, natural factors affecting population migration are the territorial differences in natural conditions and social factors are the territorial differences in a social environment. In this sesnse, he classified natural factors into six subgroups such as orographic, landscape, hydrological, geological, climatic and zoogeographic. Other researchers pay particular attention to push and pull factors ("pull-push") as factors affecting migration.O.D.Vorobeva (Vorobeva ,2003) notes if people leave their region for going to the region with high living standards (as a result of the combination of natural and economic conditions), this called a pull factor. Moscvyn believes that in recent years, labor migration has been shaped by the influence of demographic factors. (Prokhorov , Epstein ,2016, pp 9-18)

3. STATISTICAL ANALYSIS OF DYNAMICS OF THE INTERNATIONAL MIGRATION OF POPULATION AND WORKING ENVIRONMENT

There is a need for data on quantitative indicators of migration to assess the influence of migration on the current situation and predict future effects. Migration has always existed, but over the past 20 years it has been subject to quantitative and qualitative changes. Analysis of the UN data shows that in recent years, the number of international migrants worldwide has increased year over year. So, the number of international migrants has increased to 173 million in 2000, 191 million in 2005, and 220 million in 2010. In 2015 compared to 2000, the number of international migrants and refugees reached 248 million increasing by 71 million or 43.3 percent, to le. At the same time, for 15 years their share in the world population has grown from 2.8% to 3.3%. In 2017, the number of international migrants was 258 million. According to the UN experts, the world population will continue to grow in the medium term perspective and in 2050 the total number of population will reach 9.7 billion people. If the proportion of international migrants remains constant in the world population, then by 2050, the number of migrants worldwide will reach 321 million (Efendiyev , Veliyev, 2018, pp.92-98). Countries with high socio-economic development status (especially, USA, Australia, Canada, all Western European states, as well as states with high incomes from oil and gas sales and countries with rapid economic growth (Saudi Arabia, Kuwait, United Arab Emirates , Qatar, etc.) act as the geographical centers of immigration. Geographical analyses show that 60% of all international migrants live in Asia and Europe. In 2017, 79.6 million of international migrants were in Asia, 77.9 million in Europe, 57.7 million in North America, and 24.7 million in Africa, 9.5 million people lived in Latin America and the Caribbean, and 8.4 million in Oceania (Figure 1).

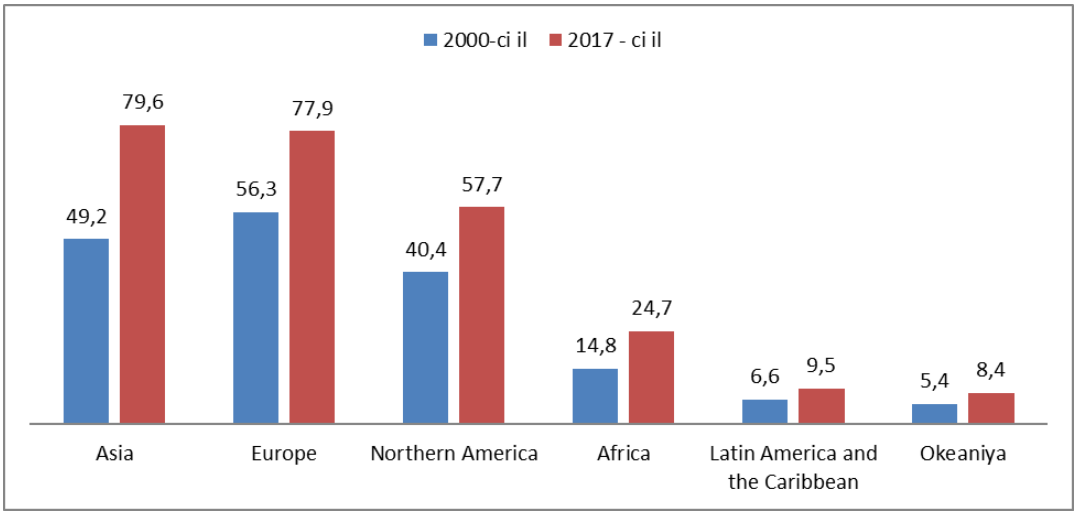


Figure 1: The number of international migrants in the destination region in 2000 and 2017 (millions) (Authors)

In 2017 compared to 2000, the number of international migrants increased by 30.4 million or 61.8% in Asia, by 21.6 million or 38.4% in Europe, 17.3 million or 42.8 % in North America, 9.9 million or 66.9% in Africa, 2.9 million or 43.9% in Latin America and the Caribbean, and 3 million or 2.5 times in Oceania. Almost half of all international migrants worldwide are females. Thus, in 2000, 49,3% of international migrants were females, and in 2017 this figure was 48,4%. In 2017, the median age of international migrants was 39,2 years. (United Nations, 2017)

Table 1: Females among international migrants and median age of international migrants in 2000 and 2017

Major area, region, country or area of destination	**Number of international migrants** (thousands)		**International migrants as percentage of total population**		**Females among international migrants** (percentage)		**Median age of international migrants** (years)	
	2000	**2017**	**2000**	**2017**	**2000**	**2017**	**2000**	**2017**
World	172,604	257,715	2.8	3.4	49.3	48.4	38.0	39.2
More developed regions	103,418	145,984	8.7	11.6	51.1	51.8	40.0	43.4
Less developed regions	69,186	111,732	1.4	1.8	46.6	43.9	34.8	34.3
Least developed countries	10,073	14,442	1.5	1.4	50.0	50.4	26.9	29.7
Less developed regions, excl. least developed countries	59,155	97,331	1.4	1.8	46.0	42.9	36.2	34.9
High-income countries	100,405	164,847	9.6	14.1	49.0	47.7	38.5	40.6
Middle-income countries	64,042	81,440	1.4	1.4	49.6	49.3	38.5	37.3
Low-income countries	7,733	10,915	1.8	1.6	50.5	50.9	27.1	29.8

In 2017, 165 million international migrants or 64% settled in high-income countries, 81 million or 32% in middle-income countries, 12 million or 4% in low-income countries. For comparison, it should be noted that in 2000 the level of these indicators was 58%, 37% and 5%, respectively.

The main direction of the international migration flow is the developed country, especially the US. According to Statistics from the United Nations Department of Social and Economic Affairs (UN DESA), one out of every 5 people who left their homeland for some reason, lives in the United States. In 2017, the flow grew stronger and the number of migrants in the United States reached 49, 8 million, which is about 19% of all migrants. According to the number of international migrants, Russia is among the world's first four countries. In 2017, Russia is in the fourth place after the United States, Germany and Saudi Arabia. Nearly 12 million migrants live in Germany, Saudi Arabia and Russia. The Central Bank of Russia states that the volume of personal money transfers by physical persons from Russia in 2017 amounted to $ 21.7 billion. In recent years, the United Kingdom, United Arab Emirates, France, Canada and other countries are among the countries that host international migrants. In 2017, the vast majority of migrants - more than 17 million are from India. The second place has been taken by about 13 million Mexicans. Approximately 6-11 million migrants are from China, Bangladesh, Ukraine, Syria, Pakistan and Russia (United Nations 2017). Migration processes are the main factor of social transformation and development in both the host and native countries. Labor force migration holds a leading position in the system of migration processes and expressed as labor migration in the economic literature. It is difficult to keep accurate records of the international labor migration, because it is hard to determine the exact number of illegal migrants, although it is easy to calculate the number and composition of those who legally migrate to live and work in another country. The total number of migrants is always determined by certain predictability. According to the reports of the Organization for Economic Co-operation and Development (OECD) dated November 23, 2018, the number of immigrants in the status of workforce has been as follows: (http://www.OECD.org/statistics.)

Table 2: Number of migrant workers (in person) in 2017

Country of birth	Africa	Asia	Europe	North America	Oceania	South and Central America and Caribbean	Other and unknown places of birth
Country of residence							
Total	6818912	123104319	411752656	206218467	13502307	81449068	9458015
United States	838702	7832188	5430467	186644155	255816	16166069	594
Japon	5069	107936078	27148	39973	8061	193467	14987
Germany	138180	851113	60313453	27600	…	36850	6754757
Mexico	809	9877	44678	112192	631	62499999	174452
Italy	407470	188783	47990827	67993	18035	219451	….
France	2745341	432843	44750979	48500	5566	85148	….
United Kingdom	762639	1475357	44733176	193341	156705	323921	39240
Turkey	4349	71893	47469578	10744	1905	…..	18958
Spain	372120	79300	33645080	19880	3660	724940	3160
Poland	1998	9723	30737739	5799	324	1026	531957
Canada	277535	1887280	2288160	18791915	50150	587195	19245
Australia	166062	1043202	2099093	70573	10658135	74569	745140
Netherlands	218503	323993	11804617	13381	7032	292274	73615
Greece	50957	83830	9080035	31021	20032	6210	1113
Portugal	332393	15689	8273269	10391	856	66917	…
Czech Republic	1787	20690	8369031	1983	296	1446	176482
Hunqary	1775	10927	8487581	2493	212	1015	6
Other countries.	493223	832183	46207745	126533	2313891	168571	904311

As you can see from the table, there are 852.3 million migrant workers worldwide. 217.2 million or 25.5% of these migrants have lived in the United States, 108.2 million or 12.7% in Japan, 68.1 million or 8.0% in Germany, 62.8 million or 7.4% in Mexico, 48.9 million or 5.7% in Italy, 48.0 million or 5.6% in France, 47.7 million or 5.6% In the United Kingdom, 47.6 million or 5.6% in Turkey, 203.7 million or 23.9% in Spain, Poland, Canada, Australia, the Netherlands, Greece, Portugal, the Czech Republic, Hungary and other countries. About 6.8 million or 0.8% of migrant workers in the world were born in Africa, 123.1 million or 14.4% in Asia, 411 million or 48.3% in Europe, 206.2 million or 24.2% in North America, 13.5 million or 1.6% in Oceania, 81.4 million or 9.6% in South and Central America and the Caribbean, 9.5 million and 1.1% other and unknown places. By affecting native countries of migrants in different ways, labor migration results in the decrease of labor force, as well as migrants' money transfer to their family members. In 2016, the amount of money transfer by international migrants to their family members was $ 601 billion. This amount is twice as much as the overall amount of foreign financial aid provided all over the world and is equivalent to the total amount of foreign investment. The migration process of the labor force in every state is an important source of foreign currency inputs to the country.

4. STATISTICAL ANALYSIS OF THE INTERNATIONAL MIGRATION OF POPULATION IN THE REPUBLIC OF AZERBAIJAN

4.1 Statistical analysis of the international migration of population in the Republic of Azerbaijan

With regard to the transition to the innovative development direction of the Republic of Azerbaijan and its regions, migration flow management has become one of the important duties of socioeconomic development. In 2005, the number of emigrants who leave for permanent residence from the country was 2000, and in 2017 this number was 3100. On the contrary, the number of emigrants leaving Azerbaijan to live permanently has decreased: in 2005 the number of Azerbaijani migrants was 2900, but in 2017 this figure was 1900. However, despite the fact that the number of people leaving Azerbaijan for permanent residence in 2005 - 2014 declined from year to year (72.4% decrease in 2017 compared to 2005), 2015 - 2017, its dynamics has increased in comparison with 2014 by 2 times in 2015, compared to 2015 by 6.3% in 2016, compared to 2016, by 11.8% in 2017. The analysis of sex and age composition of emigrants leaving the Republic of Azerbaijan in 2009-2017 shows that the number of women dominates. 55% of emigrants in 2009, 55.6% in 2010, 52.0% in 2012, 51.8% in 2012, 60.9% in 2013, 57.6% in 2014, 59.2% in 2015, 52.2% in 2016 and 70% in 2017 are women. The majority of emigrants (about 82%) are between 25-29 and 30-34, and most of them (59 %) are from urban areas. The main reason for this is the fact that men who leave the country have not left the registration in their permanent residence (Report on the Study of the Situation of the Wives and Other Family Members of Azerbaijani Migrants working and living outside the borders of Azerbaijan, 2013, p.18). Most of those who left Azerbaijan for permanent residence in recent years are Russians who migrate to Russia. The number of emigrants leaving for Kazakhstan and Turkey is significantly high, and thousands of our compatriots live and work in the United States and Western Europe. At the same time, businessmen from different countries of the world (US, Turkey, Russia, etc.) come to Azerbaijan to work and live. The following official information provided by the State Statistical Committee of the Republic of Azerbaijan reaffirms the abovementioned figures: (http: // www. stat.gov).

Table following on the next page

Table 3: Distribution of migrants coming to Azerbaijan and leaving Azerbaijan for permanent residence in the years 2014-2017 (person)

	Immigrants who came to settle permanently in Azerbaijan				**Emigrants who left Azerbaijan to settle permanently in another country**			
	2014	2015	2016	2017	2014	2015	2016	2017
Total	1859	2649	3233	3073	795	1557	1711	1901
United States of America	7	3	9	5	12	20	28	29
Germany	16	12	8	10	33	17	22	25
Belarus	4	5	14	13	11	52	61	68
Estonia	-	-	-	1	-	1	2	1
Georgia	490	782	1134	830	13	17	27	31
İran	106	144	145	103	-	-	-	-
Israel	8	3	6	3	8	3	10	8
Kazakhstan	81	103	132	157	99	482	502	474
Kyrgyzstan	16	33	46	51	8	10	12	22
Latvia	2	2	2	-	1	1	2	1
Lithuania	2	6	3	3	1	-	-	-
Moldova	5	13	18	22	7	9	12	19
Uzbekistan	68	95	116	136	33	20	23	31
Pakistan	22	30	19	22	-	-	-	-
Russian Federation	623	930	910	988	443	782	816	920
Tajikistan	9	8	7	11	-	-	-	-
Turkey	160	164	214	288	39	66	97	101
Turkmenistan	48	50	124	115	16	17	19	28
Ukraine	72	99	126	149	35	22	29	102
to other foreign countries	120	167	200	166	36	38	49	41
CIS countries	926	1336	1493	1642	652	1394	1474	1664
Other foreign countries	933	1313	1740	1431	143	163	237	237

As it is seen from the table, 988 out of the 3073 migrants or 32.1% who came to Azerbaijan for permanent residence in 2017 were from Russia, 830 migrants or 27% from Georgia, 288 migrants or 9.4% from Turkey, 157 migrants or 5, 1% from Kazakhstan, 149 migrants or 4.8% from Ukraine and 21.6% from Iran, Uzbekistan, Turkmenistan and other foreign countries. In total, 1642 migrants or 53.4% of migrants came from CIS countries and 1431 migrants or 46.6% came from other foreign countries. The Russian Federation is a major destination country for migrants from Azerbaijan. 443 out of 795 migrants or 55.7%, who left Azerbaijan in 2014, 50.2% or 782 out of 1557 migrants in 2015, 48.4% or 816 out of 1711 in 2016, went to Russia to live permanently. In 2017, 920 people or 48.4% of 1901 migrants left Azerbaijan for permanent residence in Russia, 474 or 24.9% in Kazakhstan, 101 people or 5.3% in Turkey, 102 people or 5.4% in Ukraine, 304 or 16% in the US, Germany, Belarus, Georgia and other foreign countries. In total, 1664 or 87.5% of migrants went to CIS countries and 237 or 12.5% went to other countries.

4.2. Econometric analysis of fundamental factors affecting population migration in the Republic of Azerbaijan

The correlation and regression method is of great importance in assessing the impact of the factors affecting the migration flow and determining its direction. Based on the statistical data provided by the State Statistical Committee of the Republic of Azerbaijan on the number of migrants, unemployment rate and average monthly nominal wage in 2008-2017, we compiled Table 5 for correlation - regression analysis and econometric modeling with the help of the SPSS software package:

Table 4: The number of people leaving the Republic of Azerbaijan, the number of unemployed and average monthly wage in 2008 – 2017

Years	Number of migrants from Azerbaijan (thousands)	Number of the unemployed (thousands)	Nominal_salary (manats)
2008	2,5	262,2	268,0
2009	1,4	260,2	298,0
2010	0,8	258,3	325,0
2011	0,5	250,9	356,6
2012	0,2	243,1	391,4
2013	0,8	236,6	419,0
2014	0,8	237,8	442,1
2015	1,6	243,7	462,0
2016	1,7	252,8	494,3
2017	1,9	251,7	525,0

Based on the correlation and regression analysis conducted with the help of the SPSS software package, the following results have been achieved:

Table 5: Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.659[a]	.434	.272	6.09652	1.105

a. Predictors: (Constant), unemployed_number, nominal_salary
b. Dependent Variable: number_of_migrants

The correlation coefficient (R) 0, 659 indicates that there is a significant relationship between the number of people leaving the country and the unemployment rate and the average monthly nominal wage. The value of the calculated determinant (R square) is equal to 0.434, indicating that 43.4% of the variation is related to the model, and 56.6% are related to non-model factors in migration processes.

Table 6: Coefficients [a]

Model	Unstandardized Coefficients		Standar-dized Coeffi-cients			95.0% Confidence Interval for B		Collinearity Statistics	
1	B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Tole-rance	VIF
(Constant)	-159.074	74.290		-2.141	.070	-334.742	16.595		
Nominal _salary	.004	.003	.469	1.365	.215	-.003	.011	.685	1.460
Unemployed _number	.062	.027	.795	2.315	.054	-.001	.126	.685	1.460

a. Dependent Variable: number_of_migrant

The following econometric model has been established as the equation of the relationship between the number of people leaving the country ($\bar{y}$) and the unemployment level (x_1) and average monthly nominal wage (x_2): $\bar{y}$ = -159,074 +0,062 x_1+0,004 x_2 This shows that the increase in the number of unemployed in the country by one thousand means the increase in the number of people leaving the country by 62. The decrease in the average monthly nominal wage by one manat causes the increase in the number of people leaving the country by four. Thus, the correlation-regression analysis finds that other social, economic, ethnic, historical factors, along with the above-mentioned factors affect migration flows in the country.

5. CONSLUSION

In the Article, only statistical analysis based on official statistics (except for illegal migration) proves that the magnitude and intensity of international migration of the population and labor resources has increased in the recent years. The main direction of the international migration flow is the developed countries, especially the US. There have been some changes in the origins and composition of migrants in different periods of history. Such changes are shaped by the position, opportunities of both donor and recipient countries in the modern world, as well as historically existing ethnic, geographical and historical relations between countries. Researches show that three-quarters of international migrants are migrant workers. Since labor migration is directly related to the country's labor potential formation and development issues, it has a decisive impact on the socio-economic progress of the society. Labor migration influences migrants' native countries in various forms, and largely causes to the decrease in labor force, as well as migrants' money transfer to their family members. Although the number of people coming to Azerbaijan for permanent residence has been increasing year by year and there is a decline in the dynamics of the number of people who migrate from Azerbaijan to live permanently in another country year by year, their number has grown again. Increase in the number of people leaving the country has been affected by impressive and pushing factors. The significant factors change depending on the destination country. For example, these factors for Russia are the common language, personal relations and visa-free regime. The attractive factors regarding Turkey can be the lingual, cultural, social and historical similarities between two countries. Pushing factors include economic factors, high unemployment, average wages, as well as the Upper-Karabakh conflict, the migration of acquaintances or relatives, and the desire to improve the financial situation. In addition, migration is influenced by social and ethnic factors.

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TRANSFORMATION OF FUNCTIONS OF THE STRATEGIC RESERVES OF RAW MATERIALS IN THE CONDITIONS OF ECONOMIC INSTABILITY

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ABSTRACT

In order to ensure national security, uninterrupted functioning of the economy, market regulation and price stabilization, practically all countries of the world have created strategic reserves of raw materials. To finance the costs of maintaining and increasing strategic reserves of raw materials, it is advisable to attract funds from the public through the issuance of new financial assets secured by state-controlled stocks of raw materials. For example, receipts giving the right to receive a certain amount equal to the value of the "basket of goods". The value of the asset should be determined on the basis of the range and volume of goods included in the stabilization reserves, as well as their market prices. Being provided with strategic reserves such financial assets can be used to protect cash savings from inflation. The proposed asset will be particularly attractive in a crisis with a limited choice of reliable instruments for investment. In addition, the expansion of government procurement of raw materials in a crisis situation will provide support for certain sectors of the economy. The funds raised can also be used to take measures to ensure the stability of a new financial asset. This will reduce the financial burden on the state budget for the formation of strategic reserves. The introduction of our proposed system will improve the efficiency of commodity price regulation in national economies, significantly expanding the countries' ability to conduct joint commodity interventions to influence price movements in international commodity markets.

Keywords: *commodity interventions, price regulation, state strategic reserves*

1. INTRODUCTION

In order to ensure national security, strategic reserves have been created by almost all countries of the world. Stocks of raw materials, food and fuel were initially formed in case of unforeseen critical situations, such as wars or natural disasters. However, over time, the assignment of strategic reserves has changed somewhat. In modern conditions, state-controlled reserves are a tool to ensure the smooth functioning of the economy, market regulation, price stabilization. Many economists have considered the possibility of stabilizing at the expense of material and commodity reserves in the financial sphere (both at the level of individual countries and globally). So, F. Hayek proposed to create conditions for the introduction into circulation on the basis of the commodity basket of additional monetary units emitted by private business structures. According to the draft scientist, any organization should have the right to issue its own banknotes. The stability of the new currencies was planned to ensure due to their binding to the commodity basket. Each issuer could determine for itself the optimal basket of goods. The purchasing power of the monetary unit was supposed to be maintained at a constant level in relation to the selected commodity basket. The regulation was supposed to be carried out by means of carrying out commodity and currency interventions, as well as adjustments of the

credit policy conducted by issuing companies (banks). It is obvious that the most reliable and not subject to depreciation of banknotes produced by private companies could be in demand (Hayek, 1996). In the mid-fifties of the last century, the economic community was presented with the theory that raw materials stocks should have become the guarantee for the release of the national currency. According to the concept of the scientist, the multi-commodity standard system was to ensure the accumulation of stocks of raw materials and the stability of the national currency. The issue of money in the economy of the country was to be limited to a fixed number of warehouse warrants for a certain amount of stored stocks of raw materials. The plan envisaged the formation of a commodity basket of twenty-five products. It was assumed that the money will be issued only under the full range of products. At the same time, the total price of the basket should have remained fixed, despite possible fluctuations in prices for certain types of raw materials (Graham, 1945). The main provisions of the concept of B. Graham were criticized by many scholars of various economic schools. Firstly, it is controversial to conclude that by regulating the amount of money in circulation it is possible to maintain a constant price level of the product basket. Secondly, the additional issue of cash for government purchases of commodities in an economic downturn can contribute to a significant increase in the level of inflation in the national economy. However, this theory was further developed at the end of the last century. So, J. Soros proposed to introduce into circulation an international currency provided with buffer stocks of crude oil (Soros, 1996). B. Lietar considered the possibility of creating a world currency based on a standard set of constantly renewable inventories created for the normal functioning of national economies, price stabilization, and food security. It was supposed to include various types of metals, oil, grain crops and other raw materials into such a basket (Lietar, 2007). However, these approaches were criticized by modern economists. Emission of currency secured by tangible assets will be limited. Consequently, the money supply of such a currency may not be enough to service trade and capital flows, both at the international level and at the level of national economies. Currency issuance must meet the cash needs of the community. But if this condition is observed, the very fact of its material security may be questioned. Moreover, such a currency will be subject to depreciation, as any national. Therefore, in later works, supporters of the multi-commodity standard more often considered the possibility of creating currencies for which a single commodity or commodity basket could become a value equivalent (no material support was provided for). For example, P. Kuznetsov in his work considered the possibility of creating a supranational currency, the equivalent of the value of which was to become kilowatt-hour (Kuznetsov, 1997, p.4). V. Buralchkov, on the basis of the analysis carried out, concluded that the purchasing power of a supranational currency (artificial monetary indicator) should be determined by the price dynamics for the main international trade goods (Burlachkov, 2012, p.151-154). We believe that in modern conditions, limiting the issue of money by tangible assets is not relevant, since it reduces the effectiveness of financial regulation. However, stabilization reserves created both at the level of the state and private companies can serve as material support for issuing a new financial asset with a limited scope of application. This asset can be a tool for attracting financial resources for servicing and increasing stabilization reserves, as well as a means of protecting savings from inflation.

2. WAYS TO IMPROVE THE EFFECTIVENESS OF THE SYSTEM OF STABILIZATION RESERVES AT THE STATE LEVEL

2.1. Experience in the formation of stabilization reserves

Managing stabilization reserves requires qualified solutions. Ensuring stability in the national economy depends to a large extent on the availability in the strategic stocks of the necessary volumes of goods of a certain nomenclature. At present, the formation of stabilization reserves is carried out taking into account many factors.

The main criterion for the volume of created reserves is consumption over a certain period of time. For example, the EU countries can provide their national economies with oil and oil products for three months at the expense of strategic reserves. In Japan, oil reserves are maintained at the level of 90-100 days of consumption. Countries dependent on imports form stocks of raw materials, taking into account supplies from abroad. For example, in China, oil reserves by 2020 are planned to increase to the level of three months. It should be noted that in recent years, the policy of individual states on the formation of commodity stocks has changed, which somewhat changes the classical view of the main purpose of strategic reserves. Many countries, net exporters create reserves of products supplied by them abroad. Therefore, China accumulates significant reserves of rare earth metals. Significant strategic reserves of oil produced by OPEC countries. Malaysia, Jordan and Russia have begun the creation of state reserves of hydrocarbons. This trend is to a certain extent explainable by the desire of exporting countries to consolidate the dominant position in international commodity markets. In addition, the expediency of such a reservation is because it is not profitable for the supplier companies to reduce the extraction of metals and hydrocarbons in an unfavorable situation with world prices for raw materials. Ensuring the ability to store goods in anticipation of price increases on international exchanges is very important for exporters of raw materials. Currently, various sources of financing are used to create strategic reserves. Reservations can be made directly by the state. In this case, the main costs of creating and maintaining stocks are made at the expense of the country's budget. Such stocks are used in the event of a threat of violation of economic stability or a decrease in the standard of living of the population. For example, government reserves can be used to assist strategically important sectors of a country's economy with a low level of profitability. Information on the volume and range of stabilization stocks, as a rule, were not disclosed. However, it is more expedient to use the state reserve as a tool for stabilizing the domestic market, for which it is necessary to publish information on state stocks in the open press. As is known, information is a regulatory factor, as it affects the expectations of economic entities. The creation of strategic reserves is also carried out at the expense of private companies. In many countries of the world, in addition to the state, commercial reserves have been created. At the same time, law on enterprises imposes obligations on the establishment and maintenance of stabilization reserves. This makes it possible to avoid excessive budget expenditures. Commercial reserves mainly serve to ensure the continuous operation of organizations of individual sectors of the economy and the stabilization of commodity markets. However, a commercial backup system has certain disadvantages. First, it makes it difficult for the state to monitor compliance with the requirements for the volume and quality of renewable reserves. To solve this problem, in some countries, operating organizations (state-controlled) have been established, under whose management stocks of private companies are received. Secondly, the costs of enterprises associated with the reservation can be significant, which worsens the business environment. In some countries, in addition to state and commercial reserves, intervention commodity funds have also been established, which are usually managed at the level of sectorial departments. For example, the Russian Interventional Grain Fund was established under the Ministry of Agriculture of the Russian Federation. Such funds currently operate in the camps of the European Union, the United States, China, etc. The main purpose of their operation is to stabilize prices in the domestic markets by conducting commodity interventions. Thus, to ensure economic stability in the country, state and commercial stocks are used, as well as intervention funds, which together form a single reservation system. This allows a certain degree of diversification of costs for the creation and accumulation of strategic reserves.

2.2. Improving the system of stabilization reserves

We believe that in modern conditions state-controlled inventories can serve not only as a means of ensuring the economic stability of countries, but also as a tool for attracting financial resources. In order to attract free funds of the population and business based on strategic reserves, new financial assets can be created and put into circulation. In essence, such an asset will be a receipt giving the right to receive in exchange for it a certain amount equal to the value of the "basket of goods". The value of the asset should be determined because of the range and volume of goods included in the stabilization reserves, as well as their market prices. Accordingly, the price of the product receipt will be calculated according to the following formula:

$$C = \sum_{i=1}^{n} V_i \times P_i$$

where
C – the value of the commodity basket;
V – the volume of goods by position;
P – the price of the goods.

This tool should be attractive as a means of protecting money from inflation, since the increase in its value is due to the increase in prices for the goods that make up the basket. As you know, essential goods and raw materials are becoming more expensive than other products. Moreover, even with a significant reduction in prices on the international markets for metals, fuel and agricultural products, the prices of raw materials in national economies decrease less significantly. It should also be borne in mind that the basket is a more reliable security than every product that is part of it, because the reduction in prices for some consumer products will be compensated by the rise in prices for others. Thus, under the provision of stabilization reserves controlled by state structures, three types of new financial assets can be issued: the state commodity receipt (SCR), the commercial commodity receipt (CCR) and the receipt of the intervention fund (RIF). Accordingly, commodity baskets, based on which the value of each type of asset must be calculated, must correspond to the assortment and volume of state reserves, commercial reserves and stocks of intervention funds. Money that goes to the budget when placing SCRs can be used to build and maintain strategic reserves of raw materials. A new source of funding for expenditures required to manage government reserves will appear. Release in free circulation of CCR will reduce business costs for the formation and maintenance of stabilization stocks, controlled by the state. At present, reserves created by private companies are often used by organizations as collateral for loans. However, loans, as you know, need to be returned, and at the same time pay interest. Therefore, it is more profitable for enterprises to attract funds through the placement of CCR. In addition, export-oriented enterprises of individual sectors of the economy with the help of such an asset may receive other benefits. As is known, in the context of global crises, consumption of raw materials is decreasing globally, which often leads to a significant reduction in prices in international commodity markets. Thus, in 1986, oil prices dropped to a record level of $ 10 per barrel. Preservation of wells in order to reduce oil production and the subsequent restoration of production capacity to ensure the pre-crisis level of exports requires significant costs. Therefore, Russian companies were forced to supply oil abroad at low prices, which significantly reduced the profitability of enterprises. In such a situation, it is more expedient to reduce exports, creating additional reserves. The increase in reserves will provide an opportunity for additional release of CCR. In a crisis, this asset will be in demand, since it is during such periods that it is most difficult to protect savings

from impairment. Thus, the main costs of increasing reserves will be financed from the attracted financial resources. In the future, with the restoration of favorable pricing conditions in international markets, the level of reserves may be reduced. The stocks of raw materials created by the intervention funds can be rationally used to raise funds through the placement of RIF. The money raised should be used not only to maintain and further increase stocks of raw materials, but also to modernize individual sectors of national economies. For example, in Russia, many enterprises in the agricultural sector and the extractive industry need to upgrade their fixed assets. Increasing the reserves of raw materials is most appropriate in an economic downturn. First, it will allow to purchase raw materials at lower prices. In the future, on the rise of the economy, due to the created reserves, it is possible to satisfy the increased demand and maintain control over prices. Secondly, the purchase of raw materials will help support the extractive industries and agriculture. Thirdly, in a crisis, such an asset as a commodity receipt will be in demand from the public and business structures as a means of protecting savings from inflation. At the same time, it will be possible to avoid an increase in inflationary pressure on the national economy, since no additional issue of cash will be required. The funds involved in building up reserves of raw materials have already been issued and are in the possession of individuals and legal entities. Of course, the creation of excess reserves in national economies is not rational. However, given the growth in consumption in the world, it should be recognized that many countries at the present stage should continue to increase their strategic reserves of various types of raw materials in order to ensure national security and increase resistance to external shocks. At present, Japan, China, India, South Korea, New Zealand, and some EU countries are pursuing a policy aimed at increasing the oil reserves of various types of metals. Thus, under the provision of strategic reserves, new financial assets can be created, with the help of which it will be possible to protect cash savings from inflation, as well as to attract free funds of the population and business. This system of measures will reduce the burden of non-state budget, as well as create more comfortable conditions for the development of business of private companies, ensuring the formation of commercial reserves.

3. PROBLEMS AND PROSPECTS OF THE FORMATION OF THE INTERNATIONAL SYSTEM OF STABILIZATION RESERVES

It should be noted that the use of strategic stocks as a regulatory tool is not limited to national economies. As you know, with the help of stabilization reserves, you can influence the volatility of international commodity markets. Currently, there is no unified approach to the formation of strategic reserves of raw materials in the world, but within the framework of the activities of international organizations and agreements between countries, efforts are being made to develop a unified policy in the field of strategic raw materials management. Thus, the Food and Agriculture Organization of the United Nations FAO (FAO UN) has developed standards for carryover grain reserves to ensure food security at the level of individual states. According to the recommendations of the FAO UN, grain stocks should be at least 17% of its annual consumption. In order to reduce dependence on hydrocarbon imports, the International Energy Agency (IEA) has established reserves of extracted oil. According to the agreement on the international energy program, the countries that are part of the IEA, have undertaken to maintain oil reserves at least 90 days of its annual imports. IEA member states have repeatedly held joint commodity interventions aimed at stabilizing international oil markets. Strategic stocks were printed during the hostilities in the Persian Gulf in 1991, due to the hurricane Katrina - in 2005, due to the armed conflict in Libya - in 2011. Coordinated actions helped contain oil prices in the national economies of the IEA member countries, but also globally. Of course, it is much more difficult to manage the price dynamics of world markets for raw materials through commodity interventions than national ones. Nevertheless, attempts to create mechanisms for multilateral regulation of commodity markets through the use of stabilization stocks have been

repeatedly made at the global level. So, in 50-60 years. In the past century, several international commodity agreements were concluded for certain types of raw materials that provided for the creation of buffer stocks in order to stabilize prices. However, in the 80-90 years. almost all of them stopped their action. In 1976, within the framework of the UN Conference on Trade and Development, an "Integration Program for Commodities" was developed, the main goal of which was to stabilize international markets, as well as to regulate world prices for agricultural products and certain types of metals. To achieve this goal, the Common Fund for Commodities was established, of which 104 states became members. At the expense of the fund it was supposed to carry out commodity interventions, realizing raw materials from the created reserves or buying surplus, thus affecting the dynamics of market prices. However, the reluctance of many developed countries to participate in the financing of this program did not allow to achieve the desired results. FAO UN experts have repeatedly stated the need to create a unified system for the reservation of grain crops to reduce the severity of the food security problem on a global scale. It should be borne in mind that not all countries can find resources for stockpiling sufficient to ensure food security. It is especially difficult to solve this problem in third world countries. Of course, for the poorest countries, funds from public organizations, such as the International Monetary Fund (IMF), can be raised. As is known, the Buffer Stock Crediting Fund has been established with the IMF to assist countries creating strategic reserves. Moreover, since 1985, loans from the funds of this fund have not been provided. At present, it is advisable to form an international system of strategic stocks of raw materials for conducting large-scale commodity interventions. This will make it possible to more effectively influence the dynamics of international markets and thereby level the negative influence of the external environment on national economies. At the same time, a commodity receipt, the issuer of which will be a supranational structure, may acquire the status of a financial asset in demand at the world level. Through the issuance and placement of such a financial asset, it is possible to raise funds to create a single fund of stocks of food raw materials necessary for the implementation of commodity interventions to influence the price dynamics of international markets. In addition, an asset will be created to protect public funds from inflation. Investing in such funds will be beneficial, as the raw materials will be the basis for creating a tool to protect against the depreciation of state foreign exchange reserves. As is well known, in the conditions of instability in the global financial sphere, the preservation of capital is one of the main problems not only of the population and business, but also of the states. Such an asset as a commodity receipt, the security of which will be highly liquid stocks of raw materials, may be no less attractive than reserve currencies. Thus, problems of lack of funds to finance programs related to the stabilization of price movements in international commodity markets, as well as protection of foreign exchange reserves of countries from impairment in the context of global monetary and financial instability will be solved.

4. CONCLUSION

Given the continuing instability of the globalizing economy and the global monetary and financial system, in fact there is no effective means capable of protecting savings from impairment. Therefore, a commodity receipt, secured by highly liquid stocks of raw materials, will enjoy special confidence as a tool to preserve savings at all levels. Such an asset is more reliable than reserve currencies, stocks of companies, government bonds, gold and other precious metals. The acquisition of commodity receipts will be particularly beneficial in times of crisis, while limiting the number of reliable instruments for investment. In addition, it is precisely in a crisis that the expansion of raw material purchases, both at the state level and at the expense of international organizations, will provide support for the extractive industry and agriculture. The funds raised should be used not only to increase and maintain strategic reserves, but also to conduct interventions to ensure the stability of a new financial asset. Thus, through

the implementation of agreed commodity and currency interventions at the level of states and the international structure, it is possible to carry out effective regulation of the dynamics of prices for raw materials on international markets, as well as within national economies.

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TOURISM MARKETING OF THE CULTURAL HERITAGE IN THE CHOSEN SLOVAKIAN AREA

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ABSTRACT

The paper focuses on the communication strategy proposal for the tourism development in the chosen Slovak National Museum at the given castle, Slovakia. Using the BCG matrix, we analysed the portfolio of the cultural events, education programs and specialized events offered by the museum. In generally, we used qualitative research with focus on the interview method for obtaining the data in the period 2016-2017. All these public events are strongly connected with the castle history and its environment generated by forest stands with historical admixture of sweet chestnut and yew trees by introduction from the 16th century. The main outputs of this paper lie in the proposal of the individual marketing communication tools to increase the interest of the general public in the cultural heritage of the given area, popularization of the museum activities and to attract lager number of tourists.

Keywords: *BCG matrix, communication, marketing, strategy, tourism*

1. INTRODUCTION

The development of a society, as also the new information technologies, bring changes to each area of our lives and the marketing and marketing communication as well should adapt to these changes (Labská et al., 2009; Oancea, 2015). The tourist trade is a phenomenon, which still grow. Over the past 50 years, the tourist trade has recorded a strong increase whereby the arrivals of international tourist trade overcame first time in history the limit of one billion travellers. The UNWTO (World Tourism Organization) prediction says that the global participation on the tourist trade will reach the level of 1.6 billion tourists by the 2020. The Europe will probably remain as the most visited destination of the global tourist trade. The travelling within the domestic region will apparently play the key role in the international tourist trade. The family vacations will stay as an important product on the market, it will grow the interest in vacations for pensioners and singles. The education, whistle-stop tour or visit of relatives will belong to the most powerful incentives[1]. At the present, the trends in tourist trade in Slovakia notice an increase in recovery of traditions, rich folklore, rustic creativeness, discover of the spirit development, relax and entertainment, experiences and gastronomy. The core motive is to get to know the new experiences, new places, nature, countries, but also habits and traditions, in particular. The interaction of a modern lifestyle with something what is still authentic a have not went through rapid globalization is what the tourists mostly attract. The possibilities of individual museums, historic sights and culture organisations are influenced in area of marketing by the whole marketing of a country as a touristic destination as well as with

[1] www.sacr.sk

marketing of an individual counties, regions, towns where they occur (Mruškovič et al., 2005; Tölkes, 2018). The guarantee of the biggest share on the marketplace and the identification of its needs is the immediate goal and the marketing conception in cultural area (Dolnicar, Ring, 2014). It seeks to keep up or increase the number of visitors and to ensure the satisfaction of the focus group by the most effective way. However, the single numbers of visitors cannot override the aspect of the quality (Kesner, 2005). The Slovak museums, galleries and historic sights did a visible progress in the way of communication with the public. From this point of view, they have contributed to the tourism development in the country what has also a beneficial influence on economic indicators. It is the research area which is not devoted appropriate attention in Slovakia for instance Štefko et al. (2015). We take attention on a specialized museum with the scope of the whole country. Slovak national museum - the Museum on the castle realizes several events, programmes and activities they provide within the mentioned marketing philosophy. The article is focused on the assessment of individual activities of the museum portfolio. Using of the BCG matrix method we have pointed on areas they can contribute to the development of a museum as well as the tourist trade in generally.

2. METODOLOGY

We used qualitative research with focus on the interview method for obtaining the data in the period 2015-2017 (Silverman, 2006; Yin, 2003). The method of portfolio analysis was used to examine the public relations activities for tourists provided by the management of selected castle and its museum. Concretely, the BCG portfolio matrix was used to evaluate and compare individual cultural activities (Kotler, Keller, 2015). These method presents one of the most used portfolio matrices. It was used for the evaluation of the SBU attractiveness (strategic business units) they are in our case the cultural events (e.g. medieval day of the children, chestnut jubilee, hunting days, night of museums and galleries Christmas concert etc.), specialized shows (e.g. Eastern castle, ghosts and little lights on the castle, valentine's castle etc.) and educational programmes (e.g. touch the medieval, bite yourself into the history etc.). During the investigated period 2015-2017, the chosen Slovak national museum provided 11 cultural events, 8 specialized shows and 11 educational programmes. The analysis of entrepreneurial portfolio is the method focused for the purpose of investment decision-making into the individual business units. It serves as a baseline for determining of individual strategies for each business unit (Drábek, Halaj, 2010). The relative share of revenues (the strength of the SBU) was determined according to the following formula:

$$Relative\ share_n = \frac{revenues\ SBU_n}{total\ revenues_n} \times 100$$

where: relative $share_n$ - relative share of the SBU_n (strategic business unit) on the total revenues, revenues SBU_n - sales revenue of the SBU_n of the analysed enterprise in the current year, total $revenues_i$ - the total revenues from the sale of all SBUs of the analysed enterprise in the current year

The growth index (the stability of the SBU) was calculated as follows:

$$i_n = \frac{revenues\ SBU_{n\ current\ \ year}}{revenues\ SBU_{n\ previous\ \ year}}$$

where: i_n - the growth index of the SBU_n, revenues SBU_n current year - sales revenue of the SBU_n in the current year, revenues SBU_n - sales revenue of the SBU_n in the previous year

The relative revenues share in the BCG matrix presents the horizontal axis (x). The average value of the achieved shares of SBUs in total revenues represents a limit between high and low relative shares. The vertical axis (y) is the revenue growth index, where average value is considered as the limit between high and low growth index. Based on the limit values of the relative revenues share and revenues growth index, the BCG matrix is divided into four quadrants: cash cows, dogs, question marks, and stars. In general, all SBUs placed in the quadrants cash cows and stars achieved positive cash flow and are perspective for the enterprise. On the other hand, the SBUs in the quadrants question marks and dogs require significant cash and may achieve low profits or even losses (Evans, Berman, 1990).

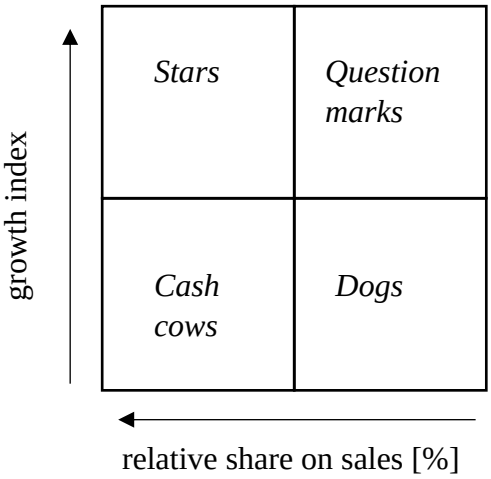


Figure 1: BCG matrix (Kotler, Keller, 2015)

3. RESULTS AND DISCUSSION

Within the portfolio analysis (Fig. 2), the cultural events strengthen their position in field of cash cows. They present significant part of the financial sources for the support of the other areas of cultural-educational activity of the museum and its further events. This matter is considered by the fact that cultural events in the museum's portfolio bring the most rate of sales every year a do not require high rate of investments. Additionally, some of them are co-organized also by other institutions. However, it is important to track their portfolio position, because their growth index and relative share on sales show moderate increasing tendency within the investigated period. This trend could be bettered by using proper marketing and communication techniques. The specialized shows shifted markedly from the field of question marks to dogs. This displacement is caused by markedly increase of their relative share on sales and decrease of their stability (growth index) on average value in the whole portfolio. Regarding the fact that only two activities were done in 2016, then newly five activities were realized in 2017 we can state that their attractivity by public is increasing by the time. They bring gradually biggest sales to the portfolio. Additionally, demand on new services and cultural experiences rises. Nevertheless, the specialized shows moved to the field of dogs. The main reason is that the financial revenues and the number of actions in comparison with the cultural events is very low. Regarding the increasing popularity of them, it would be not correct to exclude them from the portfolio. On the contrary, they should be supported in order to increase the public interest. Educational programmes kept their portfolio position in field of dogs. The main reason behind is the decrease of their stability in the portfolio, and the strengths of them in each years of investigation period in comparison with the SBU of cultural events. From the economic point of view, it is necessary to re-evaluate the setting of the marketing mix regarding with its position in the portfolio. Much more important is to realize that educational programmes bring cultural and educational values and build uncoverable part of museum activities they overtop the

generation of cash flow. They allow the students active learning. From this point of view is not possible to exclude them from the portfolio. Equally, is necessary to mention that educational programmes build markedly different form of programme as the culture events or specialized shows are. They are focused primary on children what has narrow connection to pricing or setting the entrance fee for this target group. The visit rate is given or determinate by the school possibilities, the necessity of interactive education or interest of children. In generally, from the view of portfolio strength, we can state that the heaviest share on the total sales have cultural events during the investigated period. Therefore, they are main financial source for the museum. It is very important to support them by marketing activities. Additionally, they serve to funding other business units in portfolio like specialized shows or educational programmes. Thus, we can state that portfolio of cultural-educational activities of the chosen museum is not very balanced. Because most of the activities are dependent from one kind of cultural events. They build almost 77% of the share on total sales, whereas educational programmes 12% and specialized shows only 11%.

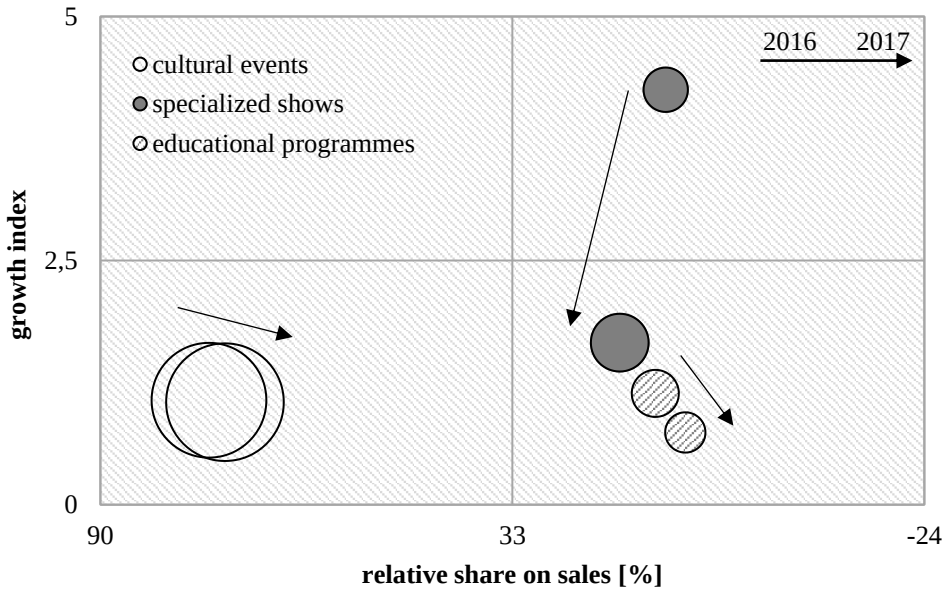


Figure 2: Portfolio assessment of cultural events by BCG matrix

Our proposal of a communication mix consists of the push and pull marketing strategy. At the same time, it must be specialized on establishing of the positive image and growth of the popularity at the public. From the wide range of examples for each communication tool we introduce the most essential ones in Table 1.

Table following on the next page

Table 1: Proposals for the communication strategy of the selected museum

Communication tool	**Proposal**
Advertisement	Very effective is to address the target groups also by social network. For the next terms, seasons, we purpose to entitle the cycle repeated cultural events by the same name.
Promotion	We suggest establishing more forms of competitions for children or adults on individual events, to put more tombola into the programmes, to launch anniversary events with some amazement for visitors, to reward each hundredth visitor etc. We take also the tasting of co-organisers' products or stalls selling for the proper sales support.
Personal sell	By reason of undersized staff capacity, we see as the biggest rate of effectiveness the addressing the school gardens, schools by local volunteers before realizing of an event. The use of volunteers for the presentation of any cultural events directly on the streets in towns would be enough advance before they start.
Direct marketing	We devise to extend it also by address-less e-mailing and for all visitors to use possibilities of M-marketing which has better response than the classic direct mail.
Visual identity	The main goal is to create a uniform visual style that will be recognisable from the competitors.
Internet	We recommend using the possibility of start-up projects by Flag Day on social networks, web pages or also personally for the development of individual events, programmes and actions. This idea would be also useful by run over of the castle coffee bar.

Our proposed tools for the marketing communication, motivation activity and advisable orientation on selected target groups can ensure not only the development of the chosen museum but also increasing the interest in bordering touristic places, growing tourism competitiveness in region and better utilization of its potential. It can equally contribute to the new job opportunities in region, to support of the technical and social infrastructure progress, to develop some entrepreneurial subjects, investment possibilities, etc.

4. CONSLUSION

The competition in tourism grows stronger and it is hard to compete with advanced tourist destinations without any professional approach in the marketing communication (Maráková, 2016). The culture heritage builds uncoverable fortune of the state. It is a proof of history and development of society, science, technic, art and education. The museums play an important role in its presentation. They should be a source of increasing cultural and educational level and to satisfy spiritual needs of the customers (Mruškovič et al., 2005). The current customer in the tourism trade is more educated, informed, well-travelled and in the result more exacting. Tourist tries to maximize its benefits. In the process, marketing communication fill a significant mission (Maráková, 2016). The interest of the Slovak visitors focuses on ski centres, vacations in the mountains and by the water, stays at a health resort and wellness visits, see the historical sights and shopping tourism. For the main goal of tourists, we consider the fact that they visit given destinations to explore and get to know something new and there spend pleasant moments. Not only the marketing strategic of Slovakia goes from this trend but also the strategy of our investigated specialized museum. We concluded by comparison of these two courses that it is necessary to create an image of attractive destination and to positive influence the brand building.

We can state that the purpose of the communication strategy is to affect the target groups mainly by emotional level and so to capture and to attract the visitors. From the results of portfolio analysis, interpreted findings of qualitative inquiry and perceptions of the visitors of individual events, we can assess that the museum active uses the communication strategy supported by the tools. These tools must ensure the highest visit rate and visitors' satisfaction. The effectiveness of the public relations activity is possible to confirmed by cultural events. They are within the whole museum's portfolio of cultural-educational activity the most attractive for the public. Despite of positive use of communication strategy by the museum management, it is still possible to improve some spheres of marketing management. Mainly it concerns the educational programmes and specialized actions by proper combination of communication tools.

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EFFECTIVE HEDGING OF BUSINESS RISKS VIA PROTECTIVE INSTRUMENTS IN PUBLIC WORKS CONTRACTS

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ABSTRACT

According to the Act on Public Procurement issued in the Czech Republic in 2016, the contracting authority specifies a set of economic qualification criteria and technical qualification criteria in order to establish human resources, technical resources and the expertise and experience necessary to perform the contract acceptable. For building construction project, meeting all qualification requirements does not yet represent protection of the contracting public authority to the potential business risks connected with the construction contract. At this moment, protective instruments in the contracts for works must be used to ensure the delivery of contract on time, cost and quality. The paper analyses the contracts for public works in the field of retirement homes for the elderly which were built in last six years in the Czech Republic. The aim is to determine the hedging of business risks and the most frequently used protective instruments applied to solve the potential business risks, how efficient they are and whether the frequency of the applied instruments contrasts with other types of construction contracts. A quantitative analysis of the currently used protective instruments in the contracts for public works is performed. The outcomes of the empirical study are compared with previous research of authors in the field of revitalization of school buildings and sewage facilities and equipment. Overall, the research paper identifies what protective instruments are currently employed, at what amounts and whether the instruments fulfil the functions required to protect both investors and contractors during the contract period and to ensure quality of public construction works contracts with the criteria of economy, efficiency and effectiveness.

Keywords: *bank guarantee, business risk, protective instrument, public works contract, standard contract for works*

1. INTRODUCTION

Effective risk management must be the aim of everyone involved in construction project (Klee, 2015, p. 2). The public purchaser identifies patterns and potential problems, variations, hazards and risks in order to manage them effectively. For building construction project, meeting all qualification requirements does not yet represent protection of the contracting public authority to the potential business risks connected with the construction contract. At this moment, protective instruments in the contract for works must be used to ensure the delivery of contract on time, cost and quality. Klee (2015, p. 18) mentioned, that in practice, an inefficient allocation of an unclear risk or of a risk that the party is not able to control will result in speculative claims, disputes, or even contractor bankruptcy. Furthermore, a contractor will allow for risk in their bid price via a 'risk surcharge'. Thus the investor pays for the transfer of risk in such a situation. Klee (2015) sets out the basic principles which should be stated in standard contract for works:

- Setting the contract price
- Responsibility of project's documentation
- Project Management

- Risk Management and its allocation – compensation
- Change Management in the project
- Time Management
- Quality Management
- Cooperation, prevention and Claim Management

The aim of this paper is to find out how the parties involved in public works contract - investor and contractor - can manage the potential business risks in the phase of negotiation the business conditions of standard contract for works and how they allocate risks via protective instruments - hedging in the final agreement - contract for works - in the Czech Republic. The aim is to identify the portfolio of hedging instruments in the specific field of construction retirement homes for the elderly projects, which instruments are currently employed in this field of public works contracts, at what amounts and whether the instruments fulfil the functions required. The outcomes of this data analysis are compared with previous researches of authors in the field of sewage facilities and equipment and in the field of revitalization of school buildings and compares the applied instruments in their frequency and amounts.

2. RISK MANAGEMENT AND PUBLIC WORKS CONTRACTS

Project risks are uncertainties that exposes a project to potential failure to achieve its goals. A project begins in uncertainty and risk. Identifying, evaluating and treating risks is an ongoing project management activity that seeks to improve project results by avoiding, reducing or transferring risks. Project risk management also provides stakeholders with visibility and clarifies accountability for accepted risks. Project risks are considered to be dynamic and therefore risk assessment should be a continuous process spanning all phases of construction (Smith et al, 2014). The key is to build risk management into the project as an integral part of all phases so that it rises to the importance level of cost and schedule. The phases of the process of project risk management are summarized by Chapman (1997):

- Define
- Focus
- Identify
- Structure
- Ownership
- Estimate
- Evaluate
- Plan
- Manage

Risk management aims to avoid, reduce, accept or transfer risk and exploit potential opportunities. A key task is to incorporate an identification of business risk as one of the important part of project risk in the phase of negotiating the contract. This is a future possibility that may prevent the contractors from achieving a business goal. The typical business risks facing are broad and include things that you can control such as your strategy and things beyond your control such as the global economy. ISO 31000:2018 provides guidelines on managing risk faced by organizations. The application of these guidelines can be customized to any organization and its context. It provides a common approach to managing any type of risk and is not industry or sector specific and can be used throughout the life of the organization and can be applied to any activity, including decision-making at all levels. There is a strong relationship between risk and reward. It's generally impossible to achieve business gains without taking on at least some risk. Therefore, the purpose of risk management isn't to completely eliminate risk.

In most cases, risk management seeks to optimize the risk-reward ratio within the bounds of the risk tolerance of business (Spacey, 2015). Three main phases can be distinguished in respect of handling risk:

1. hazard identification,
2. risk analysis and
3. anti-risk measures (Klee, 2015, p. 15).

Some risks can be secured during the procurement process of construction project as the employer's requirements and confirmed in the contractor's proposal.

2.1. Procurement and project risks

Procurement risk is the potential for failures of a procurement process designed to purchase services, products or resources. Common types of procurement risk include cost, fraud, quality and delivery risks. In many cases, procurement risks are also compliance risks as purchasing practices are typically government by anti-corruption laws, for examples see Table 1.

Table 1: Overview of Procurement risks (Spacey, 2015, https://simplicable.com/new/procurement-risk)

Overview: Procurement risk	
Examples	• An executive grants a contract to a friend resulting in high costs and low quality results. • A government procurement agent is a former employee of a major supplier who has a conflict of interest resulting in high costs bids being accepted. • An employee is wined and dined by a supplier and feels obligated to choose their product or service.
Risk Treatments	Avoid, Reduce, Accept, Transfer

2.2. Public procurement in the Czech Republic

The Act on Public Procurement was adopted in response to the requirements of the EU directives and is therefore in compliance with the binding EU regulation. Also the other Czech legislation concerning public procurement is regularly harmonised with respect to the EU regulation (Public Procurement, Czech Republic, 2018). The Czech legislation on public procurement was codified in the Act. No. 134/2016 Coll., on Public Procurement. The Act covers the general legal framework for procurement threshold values, award procedures and provides for different types of procedures and differentiates. The national threshold values (excluding VAT) in public works contracts are:

- *Above-the-threshold public contract:* CZK 142,338,000 (approx. EUR 5,551,404, when exchange rate EUR/CZK is 25.64, 08.01.2019)
- *Below-the-threshold public contract:* > CZK 6,000,000 (approx. EUR 234,009)
- *Small-scale public contract:* ≤ CZK 6,000,000

For contracts above the threshold value, there are the following types of award procedures:

- open procedure,
- restricted procedure,
- negotiated procedure with prior publication,
- negotiated procedure without prior publication,
- competitive dialogue procedure,
- innovative partnership procedure,
- concession procedure,

- a procedure for awarding the public procurement in a simplified regime.

Further, for contracts below the threshold value, there is a simplified below-the-threshold procedure. For the public works contract the contracting authority mostly awards a below-threshold public contract of the procurement procedure under the below-the-threshold regime and small-scale public contracts, depending on the expected monetary obligation of the contracting authority.

2.3. Securities in construction projects

For a construction project, meeting all qualification requirements does not yet represent protection of the contracting authority to the potential business risks connected with the construction contract. Suitable and efficient portfolio of protective instruments in the contracts for works must be used to ensure the delivery of contract as required by investor. The frequently used risk protective instruments for public works contracts include the following:

- property insurance and insurance of liability for damages,
- contractual penalties,
- retention money,
- bank guarantees.

Insurance is recommended to protect the contracting parties against the financial implications of unexpected losses, damage or liability. The public investor requires of the contractor to be insured against risks in connection with his responsibilities in project. The bank guarantee is a financial instrument which allows both financial and the non-financial obligations. Klee (2015, p. 373-375) stated these types of bank guarantees:

1. Vadium / Tender Guarantee / Bid Bond
2. Advance Payment Guarantee / Down Payment Guarantee / Advance Payment Bond
3. Performance Guarantee / Final Guarantee / Performance Bond
4. Warranty Guarantee / Maintenance Guarantee / Maintenance Bond
5. Retention Guarantee / Retention Bond
6. Payment Guarantee / Payment Bond

Contractor guarantees are mainly for non-payment obligations to secure their performance. On the investor's side, there are payment guarantees securing the investor's duty to pay for the works, goods or services received. The retention money as a portion of the contract price the investor will 'retain' and pay to the contractor once the public works are taken over or in response to an interim invoice. The retention money secures fulfilment of the conditions of contract on the side of the contractor and to protect investor against the contractor's unwillingness, lack of will, or impossibility of remedying the defects within the defects notification period. The contractor and investor can agree on earlier payment which will favour the contractor (allowing them to improve their cash-flow because they will receive the retention earlier than they would be entitled to in accordance with the contract). This also helps to protect the contractor against the investor's lack of will or impossibility of paying that could emerge after the defects notification period expires. On the other side, the advantage for the public investor is that they have the option to request payment should the contractor fail to meet their obligations because of bankruptcy (Klee, 2015, p. 375-376). The Retention Money Guarantee and the Maintenance Retention Guarantee are also dealt with by the FIDIC forms. The latter is used in the Gold Book to cover events where the contractor does not properly meet their duties to remedy defects and maintain the work (Klee, 2015, p. 384). In the public sector, the contracting authority specifies a set of economic qualification criteria and technical qualification criteria in order to establish human resources, technical resources and the expertise

and experience necessary to perform the contract acceptable. For building construction project, meeting all qualification requirements does not yet represent protection of the contracting public authority to the potential business risks connected with the construction contract. The aim of this paper is to determine the hedging of business risks via the most frequently used protective instruments – insurance, contractual penalties, retention and bank guarantees –and to specify whether the frequency of the applied instruments contrasts with other types of construction contracts.

3. METHODOLOGY

In order to analyse the current situation in the Czech Republic a database of 31 contracts for works was created. A data analysis was carried out on a sample of 31 final contracts for public works in the field of retirement homes for the elderly which were built in last six years. The database of contracts for works was created by selecting the contracts for public works which were realized between years 2013 and 2018. This sample was selected from the large amount of public construction works under the following criteria:

- contracts were important from the public interest point of view and from the importance of hedging an public investor and money against the financial risks;
- contracts were important from the perspective of ensuring against additional works that can threaten compliance with budget approved municipality/region;
- selected public works contracts covered all regions in the Czech Republic (14 regions);
- public works contracts were realized in last six years.

Firstly, the database consisted of the public works contracts awarded in the certified contraction authority profile online on the website http://www.vhodne-uverejneni.cz. It is a certified electronic tool by the Ministry of Regional Development and it is developed in accordance with the Act on Public Procurement and is simplified for public investors for easier work within the procedure of tender. The public works contracts were chosen under CPV code 45000000-7 – Construction Works and keywords »senior« (the elderly). Secondly, the database of the chosen public works contracts was extended by searching the published final contracts for public works (as documents - mainly in .pdf format) which the Contracting Authority published on the contracting authority profile and in the Public Procurement Bulletin after tender´s final decision. Thirdly, each of chosen documents (contracts for works) was analysed. Consequently, the main characteristics of each contract were observed and collected, e.g. the estimated value, the final contract price, the names of investor and contractor, the number of offers and mainly the hedging – the insurance, protective instruments and bank guarantees which were used in each contract for works.

3.1. Results and discussion

The research analysis employed the data during the period 2013-2018. The analysis contained 31 public works contracts awarded as the below-the-threshold procedure: open procedure (10 tenders), restricted procedure (2 tenders), negotiated procedure with prior publication (1 tender), simplified below-the-threshold procedure (8 tenders) and 10 public works contracts awarded as the small-scale procedure. For each procedure there were 4 offers on average. Total value of the awarded contracts reached CZK 405 million excluding VAT (EUR 15,796,000; exchange rate EUR/CZK 25.64, 08.01.2019). The average contract price was CZK 13 million (EUR 507,020). The highest contract price was CZK 93.8 million (EUR 3,658,000). The selected contracts were published mainly by municipalities/regions as the below-the-threshold public contracts or the small-scale public contracts. It was important to ensure these types of public works against risks in compliance with the quality of the works with regard to sustainability.

The total sample of 31 contracts for works required the five-year warranty period in minimum. The construction projects usually carry a standard 60 month-warranty, which is the requirement of grant within the project supported by the EU. The Czech Public Contracts Act was amended in 2012 and the amendment left out from the Act the investors' requirement to request the contractor to prove his financial and economic qualifications prerequisites. The requirement to arrange the insurance was included in qualifications prerequisites within the tender. The tenderer who passed the qualifications procedure had concluded the required insurance and it was not necessary to include this in the contract. The research data provided interesting characteristics of public works contracts. Prior to the launching of the procurement procedure or the award of a public contract, the contracting authority shall determine the estimated value of procurement. The comparison between the contract price and the estimated value for tenders in order by years is shown in Figure 1. The data provided the fact in this field of the construction works during period 2013-2018. The real contract prices reached on average 91% of the estimated value of tenders. The analysis of contracts has brought an interesting turn in the tendency of the difference between the estimated value and the contract price. The most of them were higher than the limit 70%. The comparison showed the tendency not to undervalue the tender's offers. In Figure 1 we can see only 13% contracts (4 out of 31, No. 9, 11, 12, 30) which were below 70% limit of the change between the estimated value and the contract price. Most of the contracts (95%) approached the 70% limit of the estimated value since 2015 and only one contract undervalued the estimated value and could be identified of Abnormally Low Bids and Proposals (see more The World Bank: Guide to the identification and treatment of Abnormally Low Bids and Proposals, 2016).

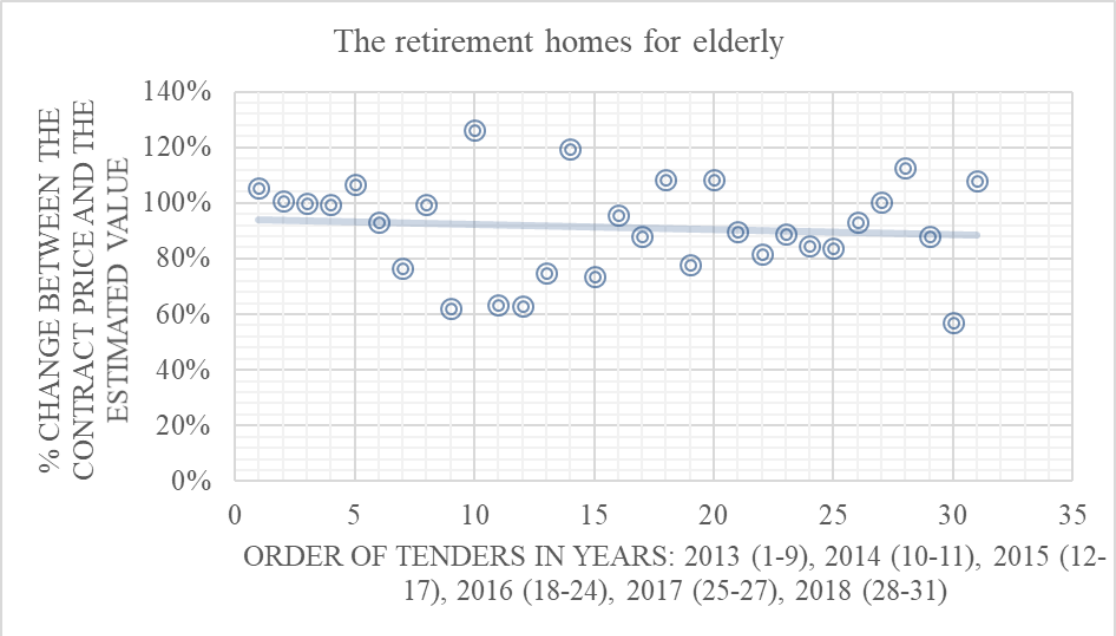


Figure 1: Comparison between the Contract Price and the Estimated Value according to order of tenders in years 2013 to 2018

The most frequently used risk protective instruments for public construction works contracts in a field of retirement homes for elderly included particularly:

- property insurance and insurance of liability for damages,
- contractual penalties
- retention money and
- bank guarantees (see Table 2 and Table 3).

The property insurance and insurance of liability for damages was found in 32% (10 out of 31 contracts) of the examined sample and it was minimally equal to contract price.

3.2. Comparisons with other fields of construction projects

Retention money belonged to traditional forms of business risk hedging in contracts for works until year 2013 in the Czech Republic (Korytárová et al., 2015). The research data have provided the fact that the retention still occurred. In comparison with a field of sewage facilities and equipment, this study in the field of the retirement homes for elderly not confirmed the analysis of Korytárová et al. (2015) in the field of sewage facilities and equipment, indicated that the use of retention in contracts for works started to decline which was caused by the financial sources of the EU funds in this field of construction projects. The occurrence of bank guarantees was raised from 2014. For example, in Germany, if the parties have agreed upon the application of the German Standard Building Contract Terms (VOB/B), the client has the right, following termination of the construction contract, to take advantage of the equipment, scaffolding, other installations, delivered materials and building components present on the site for the continuation of the work in exchange for reasonable compensation (Global Legal Group, 2017). The financial sources obviously have caused greater importance of bank guarantees for the contracting authorities in the Czech Republic, where the public construction contracts are mostly financed by the EU funds, and have lowered effect the use of retention. Public subsidies are not allowed to keep the part of investments grant in current assets after the completion of the construction works in general. Public subsidies have to be paid in the full amount of the cost eligibility, which probably caused the efficient transition of retention occurrence into using bank guarantees. The most frequent types of bank guarantees secure the duty to sign the contract by the contractor (Tender Guarantee/Vadium), contractor performance (Performance Guarantee), contractor duty to repair defects in the defects notification period (Warranty Guarantee) and the guarantee that is used in place of retention money (Retention Guarantee), see Table 2 and Table 3. It is worth mentioning that 55% of contracts was protected by some of bank guarantees. The Performance Guarantee occurred in 42% (13 out of 31), the Warranty Guarantee in 19% (6 out of 31) of contracts for works in the field retirement homes for elderly since 2013. In the field of school buildings the occurrence of the Performance Guarantee was recorded in 47% of contracts (9 out of 19) and the Warranty Guarantee in 21% (4 out of 19) of contracts since 2014, see Table 2.

Table 2: The occurrence of bank guarantees in contracts for works in specific fields

The occurrence of bank guarantees in contracts in specific field	School buildings (Andrlová, Korytárová, 2017)	Retirement homes for the elderly (this study)
Performance Guarantee	47%	42%
Warranty Guarantee	21%	19%

The contractual penalties which occurred most frequently are shown in Table 3. The comparison between the fields of sewage facilities and equipment, revitalization of school buildings and retirement homes for the elderly is shown in Table 3. This table shows the portfolio of protective instruments and their amounts which is recommended for Contract Management in negotiating the agreement for public works contract and dealing with the hedging of business risks among both parties – investor and contractor adequately.

Table following on the next page

Table 3: Protective instruments for public works contracts in the Czech Republic – comparisons the portfolios from contracts in the different fields of construction projects (Korytárová et al., 2015; Andrlová, Korytárová, 2017 and this study)

Risk protective instruments		Sewage facilities and equipment (Korytárová et al, 2015)	Revitalization of school buildings (Andrlová, Korytárová, 2017)	Retirement homes for the elderly (this study)
Insurance	Liability for damage and property	80 – 100% of the contract price	100 – 200%, in minimum the contract price	100%, in minimum the contract price
Contractual Penalties	Contractors delay in the construction completion day	0.10% of the contract price	0.05 – 0.3% Median 0.12%	CZK 1,000–7,000 0.1 – 0.3 of the contract price
	Exceeding deadline for elimination of defects and arrears of work	CZK 5,000 (EUR 195) per damage and every commenced day	CZK 1,000 – 10,000 Median CZK 5,000	CZK 5,000 (EUR 195) per damage and every commenced day
	Investor's delay in payment invoices	0.10% of outstanding amount	0.01 - 0.10% Median 0.05%	0,05% of every day of outstanding amount
	Failure in keeping the term of clearing the construction site	CZK 5,000 (EUR 195) per every commenced day	CZK 1,000 – 10,000 Median CZK 3,000	CZK 5,000 (EUR 195) per every commenced day
	Others	To select others useful penalty	To select others useful penalty	To select others useful penalty
Retention money		Not to apply		10%, applied in 1/3 of contracts
Bank Guarantees	Performance Guarantee	Not to apply	5 – 10% Median 10%	1 – 5%, occurred in 1/3 of contracts
	Warranty Guarantee	10% of the contract price	2.5 – 5.5% of the contract price	2 – 5% of the contract price
	Retention Guarantee	5% of the contract price	Not applied	Not applied

The comparisons of three fields confirmed firstly, the liability for damage and property was reached the limit 100% of the contract price (see Table 3). Secondly, the comparisons has shown that construction works contract with higher contract price such as sewage facilities and equipment in contract price limit CZK 24 mil. - 30 mil. (EUR 0.9 – 1.12 mil) contained higher parameters of the protective instruments than the field of revitalization of school buildings in average contract price limit CZK 7.5 million (EUR 0.3 mil.) and the retirement homes for elderly in average contract price limit CZK 13 million (see Table 3, for an example the contractual penalty for investor's delay in payment invoices, failure in keeping the term of clearing the site and warranty guarantee). Thirdly, retention money were applied in this study and retention guarantee were applied only in the field of sewage facilities and equipment what depends on financial sources (by the EU funds or other) for particular construction project. Finally, performance and warranty guarantee were occurred in almost half of contracts. Bank guarantees provide the investor a similar security as retention while offering the contractor many advantages.

4. CONCLUSION

The paper presents the data analysis of use of risk protective instruments employed in public construction contracts and on the assessment of a reasonable extent of their use in contracts for works.

The basis of research focuses on the quantitative analysis of occurrence of risk protective instruments, determination how they are used and are set up especially in the specific field of the retirement homes for the elderly. The research data is compared with the data acquired from previous studies in the fields of the sewage facilities and equipment and the revitalization of school buildings. The recommendation for the portfolio of the appropriate protective instruments and their parameters as contractual business conditions was set up. It helps the contracting parties to secure the public construction projects against the potential business risks and guard their assets. The purpose of the bank guarantees is to secure the performance of and the compliance with contract by and between investor and contractor. The financial sources have caused greater importance of bank guarantees for the public investors in the Czech Republic, where the public construction contracts are mostly financed by the EU funds, and have lowered effect the use of retention. In practice, using the efficient portfolio of hedging in public works requires that the risk and return characteristics of the protective instruments can be replicated in real standard contracts for works. It helps the contract managers in negotiating the agreement for public works contract and dealing with the hedging of business risks among both parties – investor and contractor adequately. The Nobel Memorial Prize in Economic Science has just been awarded to Oliver Hart and Bengt Holmström for building the foundations of contract theory in 2016. The contract theory studies the design of formal and informal agreements that motivate parties with conflicting interests to take mutually beneficial actions. In essence, contract theory is about giving each party the right incentives or motivations to work effectively together. In the Czech Republic nowadays is discussing the standardization of forms of construction contract agreement as standard sample forms adopted by FIDIC forms with aim to help the parties to understand terms of contract clearly. The hedging of public finances with the criteria of economy, efficiency and effectiveness and standardizing the contracts for works helps the parties to ensure the delivery of construction project of public works on time, cost and quality and meet the EU requirements.

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CLUSTER APPROACH TO SUSTAINABLE DEVELOPMENT OF THE NATIONAL ECONOMY

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ABSTRACT

In modern conditions of globalization and global competition clusters are a tool that ensures the sustainable development of the national economy. The last decade has shown that the formation of clusters is an important and integral part of the state policy in the field of regional development not only in Russia but also in all developed countries of the world. The analysis of the current state of research in the field of theories of territorial organization of production, concepts of competitiveness, laws of formation of cluster structures, the development of new methodological tools for the identification of clusters, cluster effects, the definition of criteria and performance indicators allow to update the direction of cluster policy, to propose strategies to improve the competitiveness of regions and the quality of life. Particular scientific and practical importance of research aimed at the development of a Toolkit to encourage clustering of regional economy, with the aim of enhancing their inclusion into the system of the modernization of relations. The cluster approach contributes to the development of production of products with high added value, as well as the activation of innovative processes in conditions of lack of natural and other resources. It stimulates the deepening of the processes of complex processing of raw materials and the use of resource-saving technologies combined with a high level of specialization and cooperation of various industries, helps to unite the efforts of neighboring and related enterprises for more effective interaction, ensures high competitiveness of jointly produced products and services in national and international markets. The result of the study: in this article the cluster approach is considered as a factor of innovative development and competitiveness of the national economy, the essence and types of clusters are analyzed, the essence of the concept of "sustainable development" in relation to the national economy is analyzed; the archetypes of the regions are identified, which allowed to offer a set of measures for sustainable development of the national economy, the mechanism of implementation of cluster policy to sustainable development of the national economy is presented. The theoretical and methodological basis of the study was the fundamental provisions of a number of scientific areas – the theory of national and regional competitiveness,

cluster economic theory, the concept of regional archetypes, theories of spatial proximity, the General theory of systems. The paper uses methods of analysis of socio-economic indicators, comparisons, groupings, tabular and graphical methods of data visualization.
Keywords: *cluster approach, competitiveness, national economy, sustainable development*

1. INTRODUCTION

The process of globalization of the world economy, which will have to work as a "unified system in real time and on a global scale" [5] has taken a significantly accelerated turn in recent decades. There is a sharp intensification of competition in the sales market, which, in turn, forces the producers of goods and services to switch to such business models that will be focused on the rapid and continuous updating of the range of goods and services, on increasing the price attractiveness, and as a result - to provide an outlet on fundamentally new consumer properties. Having such conditions, "Russia, as Vladimir Putin points out, must take the most significant place in the international division of labor not only as a supplier of raw materials and energy, but also as an owner of constantly updated advanced technologies ... To return to technological leadership, we need to select priorities carefully " [9]. A review of a large number of scientific publications on economic and related disciplines over the past few years shows us that scientists all over the world are now actively studying and discussing the use of the cluster approach as a tool for regulating the socio-economic development of the economy not only at the regional but also at the national level. For the development of the economy of any country, it is necessary to increase competitiveness in all of its traditional and knowledge-intensive sectors. There is an urgent need to improve the quality of human capital and increase productivity. The solution of such difficult tasks requires the creation of a system of clear interaction between science and education, the state and business through the use of effective tools for innovative development, among which the cluster approach plays an important role. Using the cluster model as one of the main tools for modernizing the economy has no alternative at the moment when an economic crisis occurs and the traditional methods of diversification do not bring the result and the goals that were expected. The cluster approach can improve the competitiveness of not only the industry or region, but also the state as a whole. In most developed countries, the cluster approach has become the basic element of development strategies. The clustering of the economy forms a comprehensive view of state policy, improves labor productivity and competitiveness, expands opportunities for innovative development, optimizes interaction between various economic entities: the state, small, large and medium-sized businesses, the scientific and educational community and the public.

2. THE CONTENT OF CLUSTERS AND THE IMPORTANCE OF THE CLUSTER APPROACH IN THE DEVELOPMENT OF NATIONAL ECONOMY

Today clusters are the basis of the most successful economies. In the world as a whole, there are more than 2,000 cluster formations, mainly concentrated in the areas of the agro-industrial complex, the information and telecommunications industry, the automotive industry, bio- and nanotechnologies. In economics, the concept of the term "cluster", its description, classification, as well as the evolution of the cluster approach is widely popular in the works of domestic and foreign researchers. Translated from the English "cluster" means a bunch, brush, and cluster [1]. Even to obtain "its" place in the economic thesaurus, this term was actively used in the exact and natural sciences: mathematics, physics, cybernetics, as well as astronomy chemistry and biology. It is considered that the concept of "cluster" in the economic theory was introduced by M. Porter. In his work "On Competition", published in 1998, he defined the cluster as "a group of geographically neighbouring interconnected companies and related organizations operating in a particular area, characterized by common activity and complementary to each other" [8].

This definition of cluster given by M.Porter is by far the most quoted and in demand. A cluster can also be viewed as an economic category. G.P. Boush gives the following definition of a cluster: "... an economic cluster is a non-institutionalized association of independent economic entities for the joint implementation of activities, based on the proximity of territorial, sectoral, cultural; complementarity of the product, resource, process; interconnectedness with material, non-material, informational flows" [2]. It is important to note that the concept of "cluster" for designating clusters of enterprises in space starts in the 1970s in the works of such scientists as: A. Gorkin and L. Smirnyagin [4], K. Fredriksson and L. Lindmark [11], S. Chamansky and L. de Albas [12]. According to LS Markov, today there are about twenty different definitions of the cluster and related terms that "describe the local spatial economic agglomeration: industrial areas, territorial industrial complexes, new industrial sites, neo-Marshall sites, innovative environment, network areas , the poles of competitiveness, development blocks, learning regions, etc. "[6]. If we consider the definition of a cluster from the perspective of various economic schools and approaches, they are contained in the works of Marshall, Enright, Bergman and Fezer, Croc and Farrell, Prevezer and Swan, Schmitz, Egan, Elzner, Steiner and Hartman, Kofanov, Roelandt and Hertag, Yalova , Egorov, Raizberg and Lozovsky, Tretiak, Anderson, Van den Berg, Brown and Winden, etc. Representatives of some economic schools believe that the foundations of the cluster theory were laid by the British political economists when describing the benefits of specialization, i.e. when the production of homogeneous products was concentrated in independent industries, which are characterized by the simplest technological process, machinery and trained workers. A number of scientists agree that "the main theory, the"forerunner"of the cluster approach, is the"industrial areas"of A. Marshall [3]. Perhaps this concept of a cluster is one of the most well-known and closest in meaning concepts, which is most often used as a synonym for the word "cluster". Marshall's ideas were further developed in works devoted to the study of cluster formation, including post-Fordism (M. Agglieta, A. Lipetz, R. Buis), flexible specialization (M. Payor, and C. Sable) and new industrial areas (S. Brusco, B. Bekattini). Marshall's teaching was also the genesis of M. Porter's cluster concept, which is based on the idea of competitive advantages and the concept of the M. Enright regional cluster. It should be noted that clustering for quite a long time was considered as a natural process, and in economic theory there is still an opinion that clusters develop quite spontaneously. It should be highlighted on the basis of what criteria is the classification of clusters. First of all, this is the territorial affiliation of a cluster, where its location can be both a region and a region, and a country or several countries as a whole. The second criterion is the industry or direction in which the cluster operates (metallurgical, chemical, IT clusters, etc.). The third and final criterion is the cluster structure and the nature of the links within it (supplier-manufacturer). There are many classification features and cluster typologies, for example, according to the archetypes of the regions they are (retreating, spacious, balanced, dynamic, and cosmopolitan). Table 1 presents the types of clusters based on selected parameters by leading scientists and specialists.

Table following on the next page

Table 1: Cluster Classification

Classification parameters	Types	Author
1	2	3
Sectoral Affiliation	Industrial; agribusiness; scientific / innovative; service	M. Porter
Location factor	Local (dependent on natural resources); so-called trade clusters (free at the location)	M. Porter
The type of the relationship between the parties	Vertical; horizontal	M. Porter
Level of functioning and development	Stable, latent, potential, dependent on the state, strong	M. Enright
Function	Innovative; knowledge; functional corporate	S.Rosenfeld
Features of participating companies	"Marshallian"; "Hub and spokes"; cluster satellite; state enterprise clusters	E. Markusen
Organization of interfirm relations and localization of relations	Porter Cluster Cluster without local database Cluster associated with a specific resource Dispersed activity	A. Torr
Products specialization (type of products produced by the cluster)	Automotive, travel, telecommunications, furniture, in the field of education, film, etc.	K. Ketels
Number of workplaces	Megacluster, mesocluster, microcluster	C. Carlsson et al.
Size of components	Small / medium enterprises; large / small firms	D. Hanson
Coverage area	Local; regional; national; cross-border	I. Pilipenko
Priority of operation	Regional (territorial); vertical production chains; large-scale industrial associations	I. Skopina
Degree of maturity	Emerging clusters; formed clusters; clusters at the stage of decay (crisis)	E. Monastyrnyi
Depending on the industry characteristics of clustered companies	Geographic Type Horizontal type Vertical type Lateral type Technological type	V. Abashkin, L. Gokhberg, A. Shadrin

You can also select national and international clusters. In her work “Improving the competitiveness of a region based on cluster policy: theory and methodology” E. Stryabkova notes that “according to scientists,“ clusters are unique phenomena, and the conceptual elasticity of a cluster concept is positive, but it has acquired such a wide range of applications that it has generated many interpretations, and is perceived as "chaotic." There is no clear clarity on what level of complementary industries is included in the cluster, how strong the links between cluster members should be, what spatial scales and boundaries clustering processes (inter-company communications, competition, information transfer, social networks) operate on, and which interactions of companies define the cluster ”[10]. Many scientists and specialists recognize that the difficulty in defining a cluster is that the boundaries of the cluster expand and change depending on the development of industries, economic integration, competition and the life cycles of companies.

Considering clusters on the architecture of the structure, we can distinguish micro-, meso-, macro-, hyper- and global structural level. This classification is presented in table 2.

Table 2: Characteristics of economic levels of clusters

Level	Main context
Micro- (Industry)	A cluster that is formed at an enterprise producing the development or production of a new or high-tech product, as well as providing services to support the innovation process.
Meso-	The cluster of the industry or sphere of economic activity, as well as large corporate structures that is concentrated within one state.
Macro-	A cluster that concentrates within one state or its part (state, region), the institutional basis of which is the national (state) innovation system.
Hyper-	Cluster of united national (state) systems or unions (EU, CIS, SCO, etc.), as well as transnational corporations.
Global	Cluster located in the global global systems by area of activity at the level of global formalized and non-formalized networks.

The advantage of the cluster approach in the context of the sustainable development of the national economy is that clusters are a tool for ensuring the sustainable development of any economy, which determines their active use in most countries of the world. According to the Centre for Strategic Research, "clusters are the most theoretically developed and experimentally tested way of self-organization" [7].

3. IMPLEMENTATION OF THE CLUSTER APPROACH IN THE DEVELOPMENT OF ECONOMIES IN DIFFERENT COUNTRIES OF THE WORLD

Sustainable development of the national economy is possible only if there is a certain balance between the market and government regulation. Ensuring a balance between economic efficiency and social justice is a necessary condition for sustainable economic development and one of the most important tasks of the state. Government intervention in the economy should not suppress competition, but on the contrary, should contribute to the development of a competitive environment. Competition is urgently needed in order to realize the potential of citizens, for economic growth, for social progress and for the welfare of the population. The state should raise the living standards of the population and ensure stable economic growth. The nature of competition and the role of geographic location in the formation of specific advantages of a country depend on the presence of clusters in the national economy. In turn, the absence of clusters of competitive industries is the centre of vulnerability for the national advantage of the country. Clusters are an essential link or engine in the overall economic development of both the region and the country as a whole. A key aspect of the cluster is its ability to be more innovative and productive, to bring huge benefits for the entire economy. Clusters help the public and private sector to adopt new approaches in the practice of economic policy, which is characterized by cooperation and joint actions with other economic agents. Efficient development based on the cluster mechanism constantly needs to identify such barriers that retard productivity growth and hinder innovation. To discover these limiting barriers, it is necessary to be part of the political process in order to influence it already at this level. Depending on the circumstances, all enterprises belonging to the cluster may be involved in this process as a basis for stimulating innovative activity on the part of the state, as a basis for a national industrial policy, as an interaction of large and small businesses. Taking into account the fact that modern competitive advantages are almost fully ensured due to advantages in production, management and promotion of goods, a favorable and successful development of the competitiveness of the economic system can be achieved only with the integrated use of the cluster approach and modern concepts of innovative development. By playing a major role

in competition, clusters can improve the efficiency of other institutions of a market economy. Modern economics proves the validity and credibility of cluster policy. In particular, internal competition allows improving the advantages of each cluster member, and their large concentration attracts personnel and customers. In practice, the construction of an effective and successful model does not work for all countries. Table 3 presents the TOP-5 countries by the number of successfully operating clusters.

Table 3: TOP-5 countries by the number of successfully operating clusters

Counry	Number of clusters in the country	Specialization of the most successful clusters in the country	Characteristics of the most successful clusters of the country
France	96 clusters	pharmaceuticals and cosmetics, food production	Cosmetic Valley Cluster - 600 enterprises, a leader in the production of cosmetics worldwide. France is the world's first resource centre in the field of cosmetics and perfumes. The cluster, which is a unique source of knowledge and experience, also includes seven universities, large national research institutes and 200 private and public laboratories.
India	106 clusters	Computer techologies	In Bangalore, the Silicon Plateau is successfully operating. The turnover of the IT industry in India is 70 billion US dollars. The government of India provides significant tax breaks for high-tech companies.
The UK	168 clusters	biotechnology and bioresources	The government allocated $ 30 million to create a fund that will finance innovative clusters, and identified areas around Edinburgh, Oxford and in South-East England as the main regions hosting biotech firms.
Italy	206 clusters	consumer goods and food production	Italy's industrial clusters account for 43% of the employment in the industry and more than 30% of national exports. Most clusters are single-industry (90%) and specialize in the production of consumer goods: fabrics, clothes, shoes, jewellery, accessories, as well as furniture, kitchen equipment, finishing materials and sanitary equipment. One of the most striking examples of individual industrial clusters in Italy - Sassuolo includes 220 enterprises, which employ an average of 100 people. Annually, this cluster produces more than 330 million square meters of ceramic tiles (almost every fourth tile in the world) for a total amount of more than 3 billion Euros. The export of this product brings the country almost 1.5% of total export earnings.
The USA	380 clusters	Computer technologies	In the United States, more than half of enterprises operate within clusters, and the share of GDP produced in them exceeds 60%. Perhaps the most famous and successful of them is Silicon (Silicon) Valley. This is a territory in the state of California, characterized by a high density of high-tech companies associated with the development and production of computers and their components. This is especially true of microprocessors, as well as software, mobile communication devices and biotechnologies. Despite the creation of a number of other innovation clusters, Silicon Valley remains the leading centre of its kind, receiving a third of all venture capital investments made in the United States.

Cluster economic policy is relevant in different countries of the world. In Europe, European cluster programs are being created that contribute to the development of regional clusters, their

intensification with a view to entering the markets of neighboring countries, and increasing interethnic interaction with producers from other countries. Such development programs are funded mainly by national budgets. Only one of the five development programs is funded by the budget of the structural funds of the European Union (EU). Structural funds of the European Union today carry 19% of financing for the development of clusters, which is already a significant contribution to the development of clusters (Fig. 1).

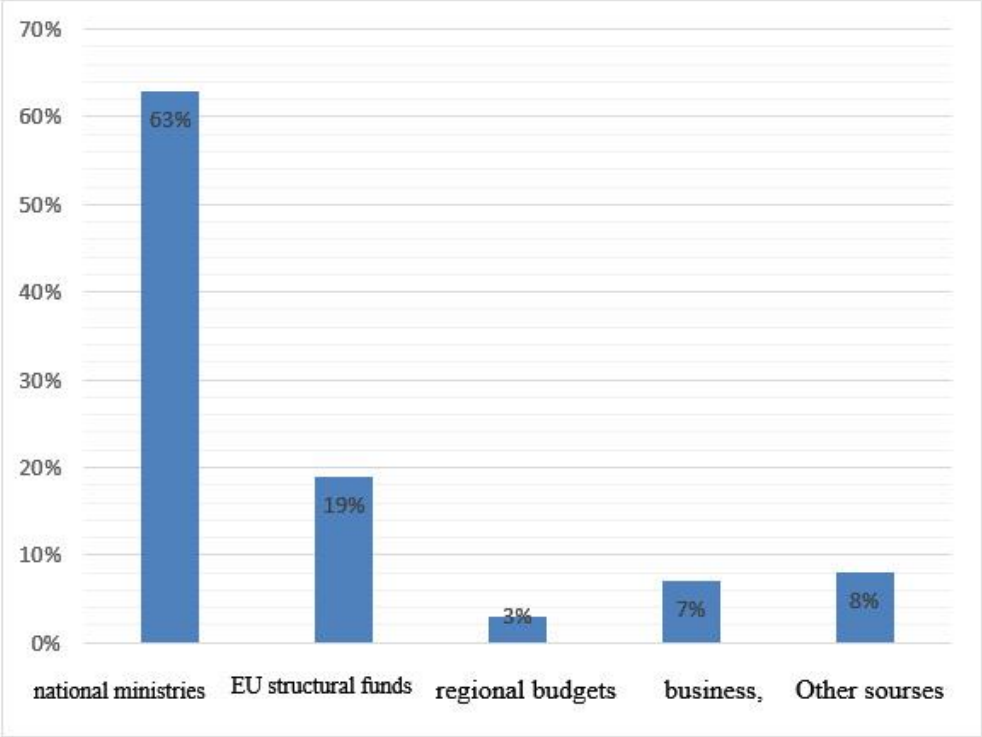


Figure 1: Sources of funding for cluster programs in European Union countries

4. CONSLUSION

The constant deviation of the economy from the equilibrium state is a consequence of the market mechanism of self-regulation. Under the influence of external and internal factors in the structure of the economy there are constant changes. Periodically occurring economic crises lead to instability of the economic system. Stabilization of economic growth and the development of balanced macroeconomic policies to achieve sustainable economic development can be identified as one of the national priorities of state regulation of many countries at the beginning of the new century. Only through the effectiveness of public administration is sustainable economic development achieved. Competent economic policy of the state has a positive effect on the growth rate of production factors and production capacity. In general, the cluster economy is attracting more and more attention around the world. The new type of industrial consortia is beneficial both to business structures and to states. Developed clusters are an economic enterprise that is efficient for a country — jobs, taxes, and a contribution to GDP. Clusters become the locomotive of economic development. To date, clustering has covered about 50% of the economies of the leading countries of the world.

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CONSUMER PROTECTION IN TRANSNATIONAL RELATIONS: THE CONTRIBUTION OF THE EU

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ABSTRACT

Up to now, it has not yet been possible to build a universal normative body under contract law, each state having its own. The plurality of existing regulations often creates legal uncertainty, undermining the legitimate expectations of the parties. To minimize these problems the Rome I Regulation on the law applicable to contractual obligations provides that the law applicable to headquarters of international contracts. It enshrines the principle of the autonomy of the will of the parties, seeking that the solution be the same in all EU Member States. That legal text also indicates, by contract categories, which law is applicable in the event of lack of choice. The EU was aware of certain categories of contracts, in particular the consumer contract, for which it chose a special scheme. Our approach will directed to the rules applicable to consumer contracts. We will highlight the need to protect the weaker party, taking into account the principle of more favorable treatment. The EU has continued to devote also to those contracts the possibility of the parties to choose the applicable law, but respecting some limits. We will review the European literature on the subject and try to interpret the law by highlighting its shortcomings, with reference to some jurisprudence of the CJEU. The Rome I Regulation on consumer contract seat establishes a minimum status, the application of the law of the consumer's habitual residence, imposing certain conditions. However, the legal system does not cover all consumers. We will try to show which consumers can invoke this law. Regulation protects only passive consumers, those for whom the trader directed its activity, does not apply to active consumers, moving to another state and then acquire products or services to a professional.

Keywords: *consumer; contract; european; law; professional*

1. INTRODUCTION

With the development of commercial relations and the phenomenon of globalization, we find that, more and more, legal relations develop in international contexts, connecting with more than a legal system. However, it has not yet been possible to build a universal contract law. In this context, we can not fail to mention the activity carried out by certain international organizations, especially the International Institute for the Unification of Private Law (UNIDROIT) and the United Nations Commission on International Trade Law (UNCITRAL). Both have sought to harmonize the discipline of international commercial contractual relations, contributing to greater predictability and security in this type of relationship. In addition to these non-binding contributions, we find that each State has its own disciplinary regime under contracts. The possibility of different legal regimes being applicable creates a great deal of uncertainty, undermining the legitimate expectations of the parties. Consider the case of a Portuguese company selling its products to an Azerbaijan company. Thus, we will be before two legal systems that demand the regulation of the contractual relationship.

If we also imagine the possibility of the parties granting, under the same contract, to establish relations with legal persons from other States, we easily find that the number of potentially applicable ordinances will increase. In order to avoid this multiplicity of regimes, various possibilities are drawn: through conflict rules, namely Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I); by means of international conventions which have as their object a common contractual discipline, ratified by the respective acceding States, for example the 1980 Vienna Convention on the law applicable to the international sale and purchase of goods; and by means of Soft Law texts intended to harmonize the discipline of international commercial contracts. As a paradigm of the latter, we highlight UNIDROIT principles and their very important contribution to international trade. However, we can not fail to emphasize the operative character of both international conventions, given that the parties may refrain from applying them, or from the non-binding nature of Soft Law, in addition, it forms part of texts lacking the compulsory character, , but revealing great technicality and adequacy to transnational relations. Moreover, they impose themselves on clarity, flexibility and persuasiveness. We can not fail to mention that these regulatory bodies are not intended for consumers who purchase goods outside their professional activity. It is our intention to approach the technique of the conflict rule, especially in the Rome I Regulation and, as far as our study is concerned, the law applicable to the contract concluded between a consumer and a professional. Let us not forget that the option of the regulation technique has been implemented in the sense of linking all Member States and harmonizing the subjects they portray.

2. GENERAL CONSIDERATIONS

This Regulation establishes the conflictive normative framework for determining the law applicable to contractual obligations within the European Union, designing for certain normative categories special provisions, protecting the weaker party. We are talking about the transport contract, the consumer contract, the insurance contract and the employment contract. The present law underpins the principle of the freedom of the parties in the choice of law (principle of private autonomy), provided that, where such a choice does not operate a supplementary regime through clear and specific rules for the most varied contracts, in civil and commercial (Pinheiro, 2016). With this harmonization of conflict rules, the courts of the Member States will be able to determine, in the same way, the law applicable to an international contract, when the parties have not exercised the faculty conferred on them by this Regulation. It should be emphasized that with the entry into force of the Lisbon Treaty the communitarisation of Private International Law of the Member States was deepened, now moving towards a unified Private International Law system through Regulations, leaving only national legislators, in the context of transnational relations, a merely residual role (Masiá, 2016). The European Union therefore seeks to preserve its aims, including security, justice and the gradual attainment of an area of freedom. The Member States are therefore empowered to take action in the framework of judicial cooperation in civil matters with cross-border implications, always with a view to contributing to the proper functioning of the internal market, with all those measures favoring harmony and the compatibility of the rules applicable in the Member States with regard to conflicts of laws and jurisdictions. The purpose of the Rome I Regulation is to unify the conflict rules on civil and commercial disputes at European level, as was the case with its predecessor Rome Convention. Both diplomas provide similar legal solutions, and we find that the current regulation did not introduce any substantial changes, and in our view it is limited to updating some of the matters already covered by the Convention. It should be noted that the Regulation has a universal character, as its predecessor also established it, and the law designated under both instruments is applicable even in the case of a law of a non-contracting State.

With regard to the interpretation of both the 1968 Brussels Convention on Jurisdictional Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters and Council Regulation (EC) No 44/2001 of 22 December 2000 on recognition and enforcement of judgments in civil and commercial matters, which has replaced it, as well as the current Regulation (EU) n. No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, which replaced the previous regulation, the Court of Justice of the European Union has defended the need for an autonomous interpretation of the legal categories evidenced by the regulations (Paredes, 2006). For this purpose, the national authorities have contributed a great deal to the question referred for a preliminary ruling by the national court.

3. CONSUMER CONTRACTS: THE LAW APPLICABLE

Article 6 of the Rome I Regulation establishes a special regime for the designation of the law applicable to the consumer contract. This precept takes into account the fragilities of the weaker party intending to protect the consumer. The application of the general scheme of Article 4 of the Regulation is removed from the outset. The Court of Justice of the European Union clarified the concept of consumer, stating that the protection applies to 'private final consumers' (Case 150/77, Bertrand). It subsequently concluded that the protection granted to consumers extends to contracts concluded exclusively by private individuals in order to meet consumer needs and can not cover undertakings or legal persons (Case C-269/95 Benincasa). This protection can be invoked only by the consumer himself and not by an applicant acting in the exercise of his professional activity to whom the consumer has transferred his rights (Case C-89/91, Shearson Lehmann Hutton). Finally, the Court held that the definition of a consumer must be interpreted autonomously and uniformly throughout the Union (C-508/12, Vapenik). The Court concluded that: 'Thus, the Court has already held that the rules of special jurisdiction over consumer contracts can not be applied to contracts between two persons engaged in commercial or professional activities (see, to that effect, Case C-89/91 Shearson Lehmann Hutton [1993] ECR I-139, paragraphs 11 and 24). 33 It must be stated that there is also no imbalance between the parties in a contractual relationship such as that at issue in the main proceedings, namely that between two persons not engaged in commercial or professional activities. Therefore, that relationship may not be subject to the system of special protection applicable to consumers contracting with persons engaged in commercial or professional activities' (paragraphs 32 and 33 of the case). When it is a legal relationship between a consumer and a professional (the one who carries out commercial activities) the law of the consumer's country applies. However, it is important to state that the application of the law of the consumer country presupposes, in order to be applied, that the commercial or professional activity of the person contracting with the consumer, the professional, develops in or to the consumer's country and that the contract is within the scope of its activities. The regime set out in Article 6 of the Regulation, formerly Article 5 of the Rome Convention, also presupposes that consumer goods are supplied as part of a professional activity. Some understand that only in this way can we face an inequality between the parties and, as such, the need to protect the weaker party (Pinheiro, 2015). However, this rule should apply even if the professional acts outside the scope of his activity and the consumer is unaware of this situation acting in good faith (Giuliano & Lagarde, 1980). It should be noted that the European legislature in this area has not failed to enshrine the possibility for the parties to elect the law regulating their contract. However, that choice can not deprive the consumer of the protection afforded him by the provisions which can not be derogated by agreement of the law, which, in the absence of choice, would apply to him under Article 6 (1) of the Rome I Regulation. The same is true of the law of habitual residence of the consumer, which provides the minimum standard of protection and presents itself as the law most closely connected with the weaker party (Pinheiro, 2006) (Ramos, 2016).

Thus, the autonomy of the will of the contracting parties will only be relevant to the extent that the law chosen manifests itself to the consumer (Ramos, 2016). It is therefore necessary to examine Article 6 (1) and (2) of the Rome I Regulation, starting with the letter of the law:

«1. Without prejudice to Articles 5 and 7, a contract concluded by a natural person for a purpose which can be regarded as being outside his trade or profession (the consumer) with another person acting in the exercise of his trade or profession (the professional) shall be governed by the law of the country where the consumer has his habitual residence, provided that the professional: (a) pursues his commercial or professional activities in thecountry where the consumer has his habitual residence, or (b) by any means, directs such activities to that country or toseveral countries including that country,and the contract falls within the scope of such activities.

2. Notwithstanding paragraph 1, the parties may choose the law applicable to a contract which fulfils the requirements of paragraph 1, in accordance with Article 3. Such a choice may not, however, have the result of depriving the consumer of the protection afforded to him by provisions that cannot be derogated from by agreement by virtue of the law which, in the absence of choice, would have been applicable on the basis of paragraph 1.».

This conflict rule, foreseen for consumer contracts, establishes two assumptions to be applied. On the one hand, it determines the material scope of the standard requiring that the protagonists of these contracts should be: a professional and a consumer. On the other, it delimits the territorial scope of application, prescribing only passive or sedentary consumers as receivers of the standard (Giuliano & Lagarde, 1980). As regards the material scope, Article 6 applies to any contract concluded between a natural person for a purpose which may be considered as being outside his trade or profession, the consumer, with another person acting in the course of his business activities or professionals, the professional. The legislator enshrined the theory of the impression of the recipient privileging only the behavior of the consumer that can be known by the professional. Hence the expression used by the legislature "for an end that may be considered as foreign to his commercial or professional activity". In short, the interpretative result of a particular statement must be in accordance with the recipient's theory of impression, that is, in the sense that a normal declarant placed in the position of the actual declarant could deduct from the declarant's behavior, in the light of the good faith and the circumstances in which the case may be considered. If, on the assumption that we are dealing with a dual-purpose contract, both personal and professional, we must take account of the position taken by the CJEU in Case C-464/01 (Johann Gruber v Bay Wa AG). Although the case concerns the 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, the problem raised and the solution envisaged remain the same in the instruments that followed and have already been referred to by us. Consequently, "a person who has concluded a contract in respect of goods intended to be used in a manner which is partly occupational and which is partly outside his trade or profession may not rely on the special rules of competence laid down in Articles 13 to 15 of that Convention, unless the occupational use is marginal, to the point of having only a negligible role in the overall context of the operation in question, and in that respect it is irrelevant that the extra-professional aspect is dominant; - it is for the court seised of the action to decide whether the contract in question was concluded in order to satisfy the requirements arising from the professional activity of the person concerned or whether, on the contrary, professional use only plays an insignificant role; - for that purpose, that court must take into account all relevant facts which are objectively apparent from the file; on the other hand, the circumstances or elements which the contracting party might have known at the time of conclusion of the contract shall not be taken into account,

unless the person claiming to be a consumer behaved in such a way that he could legitimately cause to the other party to the contract the impression that he was acting for professional purposes. " Whenever the part of the contract, related to the acquirer's business activity, is of minimal significance, it will affect the entire contract and for this reason the acquirer can not invoke Article 6 of the Rome I Regulation. Regarding territorial scope, in the context of international or transnational trade relations, consumer protection must take into account the dichotomy between active consumer and passive consumer (Garcimartín, 2016). The passive consumer is anyone who purchases consumer goods in the market of his habitual residence. This implies that the professional acts within the market of the first, including there, to acts of publicity. (Garcimartin, 2016). In these circumstances the law of the habitual residence of the consumer should be applied. (Pinheiro, 2006). The emphasis of the internationality of the contract is placed on the professional's performance, he is the "responsible" for this situation. The active consumer is everyone who moves to the professional market. Imagine a Portuguese consumer who purchases a consumer good in another state from a professional. In this case, the legislature intended that the consumer can not invoke the application of the law of his habitual residence. The principle of the personality of the law is thus refuted. In short, the Rome I Regulation being the normative body capable of indicating the substantive law best placed to regulate a given international contract that falls within its material scope and having as procedural support Regulation (EU) no. No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, account should be taken of Article 17 (1) (c) of the latter legal instrument that determines the following: “1. In matters relating to a contract concluded by a person, the consumer, for a purpose which can be regarded as being outside his trade or profession, jurisdiction shall be determined by this Section, without prejudice to Article 6 and point 5 of Article 7, if: c) in all other cases, the contract has been concluded with a person who pursues commercial or professional activities in the Member State of the consumer’s domicile or, by any means, directs such activities to that Member State or to several States including that Member State, and the contract falls within the scope of such activities.” In the light of the foregoing, two situations are outlined: the first, which is set out in Article 6 (1) (a) of the Rome I Regulation and which establishes the professional situation of the trader or trader in the country where the consumer resides habitual. The expression activities includes both the situation where the professional has a business establishment in the consumer's country, and the other one where the professional is temporarily in the consumer's country, by hypothesis, at a trade show booth (Garcimartín, 2016). The second situation is provided for in Article 6 (1) (b) of the Rome I Regulation and concerns the possibility for the trader, by any means, to direct his activities to the country of the habitual residence of the consumer or to several countries , including that country, ie the habitual residence of the consumer, and the contract falls within the scope of those activities. We find that the legislator pointed out the means that can be used to reach that consumer and disregarded the place where the contract is celebrated. We can see the adaptation of the regulation to the dynamics of commercial relations established via the internet. We can not fail to underline the importance of the term "targeted activities". It should be noted that consumer protection provided for in the Regulation on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, known as the Brussels I Regulation (currently Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012) and the Rome I Regulation shall apply if the trader has "directed his activities" to the Member State of the consumer within the meaning of Article 17 (1) (c) of that Regulation and Article 6 (1) of the Rome I Regulation. In this regard, recital 24 of the Rome I Regulation refers to the consistency in the interpretation of the material scope between the rules of these two instruments with regard to the concept of "directing activities".

The Court has been providing guidance on how to interpret the concept of "directing activities" for a particular Member State. In Pammer v Alpenhof (Joined Cases C-585/08 and C-144/09) the Court had to decide whether access to a website was sufficient to consider whether a trader directed his activity to the Member State of domicile within the meaning of Article 15 (1) (c) of the Brussels I Regulation in the version applicable at the time. It has decided that mere accessibility to a website in a particular Member State is not sufficient to show that the trader has directed his activity to that Member State. On the contrary, in order to demonstrate this, it is necessary to establish whether, before the conclusion of the contract with the consumer, it is apparent from those websites and from the overall activity of the trader that he intended to establish business relations with consumers domiciled in one or more Member States, consumer's domicile. In Mühlleitner (C-190/11), the Court held that it is not necessary for the contract to be concluded from a distance, but that this element can be taken into account when analyzing all relevant factors necessary to determine whether the professional directs activities for a particular Member State. In Emrek (C-218/12), the Court held that Article 15 (1) (c) of the Brussels I Regulation, Article 17 (1) (c) , version at the time, does not require a causal link between a website and the conclusion of the contract. However, that causal link is an indication of the connection of the contract to a commercial or professional activity directed at the Member State of the consumer's domicile. In short, in view of all the Court's guidelines, a list of criteria has been drawn up by the Court itself: "the international nature of the activity, the mention of routes from other Member States to the place where the use of a language or currency other than those normally used in the Member State of the trader, with the possibility of reserving and confirming the reservation / order in that language, the mention of telephone numbers with an international of expenditure on an Internet referral service to provide consumers in other Member States with access to a trader's site or a site of their intermediary, the use of a first-level domain name different from the Member State where the trader is established, and the mention of an international clientele constituted by customers domiciled in different Member States. However, the following elements do not constitute sufficient proof of that intention: the mere accessibility of the professional or intermediary's website in the Member State of the consumer's home, an e-mail address and other contact details, or the use of a language or currency which is commonly used in the Member State of the trader "(Practical Guide - Competence and Law applicable to international consumer contracts, 2018). In short, it is necessary that the web site invite the conclusion of distance contracts and that a distance contract has actually been concluded by any means (Pinheiro, 2015). Those interpretative criteria apply either under Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, Article 17 and in the Rome I Regulation, Article 6 (1) (b). It should be noted that the legislator in Article 6 of the Rome I Regulation did not include transport and insurance contracts where one of the interveners is a consumer. This is enshrined in other provisions, namely Articles 5 and 7 of that Regulation.

4. CONTRACTS EXCLUDED

The legislator in Article 6 (4) excludes from the scope of paragraphs 1 and 2 of the same legal precept a list of situations that relate to several situations:

a) A contract for the supply of services where the services are to be supplied to the consumer exclusively in a country other than that in which he has his habitual residence. It will be easy to understand the reason for the departure from the regime established by virtue of this type of contracts to show a very strong link with the country where the service is provided.
b) A contract of carriage other than a contract relating to package travel within the meaning of Council Directive 90/314 / EEC of 13 June 1990 on package travel, package holidays and package tours. This exclusion finds its reason for being in the fact that the regulation had

laid down special rules for this for this typology of contracts, article 5. It should be noted that travel organized under Directive 2015/2302 of the European Parliament and of the Council of 25 November 2015 on package travel and related travel Regulation (EC) No 2006/2004 and Directive 2011/83 / EU of the European Parliament and of the Council and repealing Council Directive 90/314 / EEC.

c) A contract relating to a right in rem in immovable property or a tenancy of immovable property other than a contract relating to the right to use immovable properties on a timeshare basis within the meaning of Directive 94/47 / EC. This exclusion covers mortgages or any other guarantee on real estate. This is due to the greater connection of the object of these contracts with the parents' law of the situation of the property even though one of the parties is a consumer. It is concerned with the principle of effectiveness in its two strands, principle of greater proximity and principle of the feasibility of decisions. Also known as the principle of closer connection.
d) Rights and obligations which constitute a financial instrument and rights and obligations constituting the terms and conditions governing the issuance or offer to the public and public take-over bids of transferable securities, and the subscription and redemption of units in collective investment undertakings in so far as these activities do not constitute provision of a financial service.

Financial contracts, contracts entered into by private investors in connection with a public offer for the sale of securities or a public offer for the acquisition of securities are excluded. Participation in collective investment undertakings is also excluded. These may take the form of Investment Funds or Investment Companies, aiming at the collective investment of capital obtained from the public, whose operation is subject to the principle of risk sharing and the pursuit of the exclusive interest of the participants. All investment vehicles are appropriate for raising the savings of an indefinite number of small investors (also called retail investors) and channeling them to the economy with a minimum of risk and with assured liquidity. Thus, all the transactions referred to in Article 6 (4) (d) naturally require a uniform legal regime for the determination of the applicable law, preventing the application of different schemes by virtue of the habitual residence of the investor (recital 28 of the Regulation). In this way, we intend to instill predictability and security in this type of relationship. Finally, the legislature has withdrawn the contracts (e) (...) concluded within the scope of Article 4 (1) (h). According to recital 28, the application of a plurality of laws to which Article 6 (1) and (2) may lead is not in line with financial instruments as standardized products (Fernandes 2010). It is intended that the law of the country of habitual residence of the consumer does not call into question the "regulatory unit" (Fernandes, 2010). To retain:

- Regulation (EU) No 1215/20121 and Regulation (EC) No 593/20082 include special provisions to determine: the Member State or States whose courts have jurisdiction to hear disputes relating to consumer contracts and the applicable law to these contracts.
- Such special provisions may derogate from the general principles of jurisdiction and applicable law, with the aim of protecting the consumer as a weaker party to the contractual relationship.
- Generally allow the protected party may only be sued in the courts of your residence, but give it the competence choice option when this part is on the claimant quality.

5. CONCLUSIONS

1. The Rome I Regulation enshrines the principle of autonomy of will in private international law, ie the possibility for the parties to designate the law applicable to their international contract;

2. However, this law may not deprive the consumer of the protection afforded him by the law of his habitual residence, observing the requirements of article 6, numbers 1 and 2;
3. Article 19 of that regulation does not indicate what we are to understand by the habitual residence of natural persons; consequently, we must delimit that concept independently from the circumstances in casu;
4. Article 6 protects only passive consumers, those who purchase consumer goods in the market of their habitual residence.
5. If the consumer moves to the country of the professional he must be treated as a consumer of that country.
6. The application of the law of the habitual residence of the consumer will depend on the verification of one of the subparagraphs contained in article 6 nº 1 of the Rome I Regulation: situation in which the professional has a commercial establishment in the country of the consumer, like the other one in which the professional is temporarily in the consumer's country; the possibility of the professional, through any means, to direct his activities to the country of habitual residence of the consumer or to several countries, including that country, that is the habitual residence of the consumer, and the contract falls within the scope of those activities.
7. With regard to the concept of targeted activity, it is important to bear in mind the positions of the Court of Justice of the European Union and the criteria provided by it.

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WORLD TRADE ORGANIZATION LAW OR HUMAN RIGHTS – OBLIGATIONS OR RIGHTS

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ABSTRACT

Main purpose while analyzing mutual relations between World Trade Organization (WTO) law and human rights is to emphasize the protection of human rights in the same line with commercial reforms. One of the main issues that brought up in WTO Publ ic Forum by experts regarding trade and human rights was about it to be manifested in international trade system, also in WTO dispute settlement mechanism, generally in trade policy. Difference of opinions between these two fields occurs when one state supposes that the other state does not fulfill its obligations undertaken in frames of WTO, for example, customs, taxes or dues. Negative effect of politics on realization of human rights in trade sphere happens when farmer subsidies in developed countries has a negative effect on right to food in developing countries, or intellectual property right in trade sphere negatively affects the right to health. Also, negative effects such as the effect of speculation on food products, or the effect of liberalization of services on customs, the effect of licenses on the price of the medicine, and its effect on right to health do exist. For a long time, human rights issue was not amongst the emphasized issues in WTO dispute settlement mechanism. Nowadays, during dispute settlement process, documents regarding human rights are widely used as a source while researching the interpretation and proof materials. The problem of accessibility of medicine in developing countries keeps remaining as one of the main problems in frames of WTO regarding the protection of intellectual property right. Several documents were adopted in order to solve this issue: TRIPS agreement and public health, WTO decision on implementation of paragraph 6 of the Doha Declaration on the TRIPS agreement and public health, The Protocol Amending the TRIPS *Agreement. Doha Declaration declares the priority of public health on economic and commercial interests. After summarizing everything that happened as the result of all of these processes, we can come to conclusion that:*

- *International law norms and norms related to human rights should be taken into consideration during interpretation and implementation of WTO norms;*
- *In dispute settlement process in frames of WTO, documents regarding human rights should be widely used as a source while researching the interpretation and proof materials;*

In practice of different states, the effect of trade principals on human rights should be analyzed – for example, The Canada–Colombia Free Trade Agreement.

Keywords: *Doha Declaration, Doha Round, human rights, right to health, trade law, TRIPS, TRIPS agreement and public health, World Trade Organization*

1. INTRODUCTION

Nowadays, the mutual relations between trade and human rights turned into serious research object. Although, trade is a leading force in economic progress and development process that are very important in fight against poverty, in some cases, it can turn into danger for human

rights. Everyone has right to food, health, water and development. Joint report of UN High Commissioner and UN Development Program states: "Trade agreements, of course, besides affecting the rights of consumers, residents, workers, people who are living in poverty and other groups of people, they also affect the capacity of state to governing its population and protecting their rights. But besides this, while concluding trade agreements, their effect on right to health, education, water, food and work is not taken into consideration." Main purpose while analyzing mutual relations between World Trade Organization (WTO) law and human rights is to emphasize the protection of human rights in the same line with commercial reforms. One of the main issues that brought up in WTO Public Forum by experts regarding trade and human rights was about it to be manifested in international trade system, also in WTO dispute settlement mechanism, generally in trade policy. Difference of opinions between these two fields occurs when one state supposes that the other state does not fulfill its obligations undertaken in frames of WTO, for example, customs, taxes or dues. Negative effect of politics on realization of human rights in trade sphere happens when farmer subsidies in developed countries has a negative effect on right to food in developing countries, or intellectual property right in trade sphere negatively affects the right to health. Also, negative effects such as the effect of speculation on food products, or the effect of liberalization of services on customs, the effect of licenses on the price of the medicine, and its effect on right to health do exist.

2. WTO LAW AND HUMAN RIGHTS

The mutual relation between two important fields of international law – WTO law and human rights makes the analysis of the relations of legal norms unavoidable. These two important fields cross regarding different issues: subject of regulation, vertical regulation of relations, purposes etc. Both fields are fields of international law, establishment, development process happens in frames of international law, but ultimately, in hierarchy of normative acts that regulate the relations of natural and legal persons, it stands in first rows. By putting liability on states, it affects the legal regulation of relations between natural and legal persons in very important manner. In the Human rights concepts- in the base of natural law theory, social contract theory stands universality, dignity, freedom, justice, equality (legal, social, political, economical), cooperation between humans and solidarity and other rights and freedoms. These rights are reflected also in the 1948 Universal Declaration of Human Rights [16]. International regulation of regulation of trade and business on human life and human rights is one of the most important issues. It is Guidelines for Business and Human Rights adopted by the UN Human Rights Council in June 2011 [10, p. 327]. "Protection, Respect and Solution" Framework Agreement for these Guidelines consists of three key points:

- State duty to protect human rights;
- corporate responsibility to respect human rights;
- Solutions on reimbursement of losses of persons associated with the business;

The "Protection, Respect and Decision" framework agreement adopted by the United Nations High Commissioner for Human Rights, established a new and accurate criterion and entered an important stage in the development of human rights in society and in the expectations of a human rights business. This is the first important step to solving problems and getting effective answers [12, p. 216]. The basic principles and rights set forth in the International Bill of Human Rights and the Declaration of the International Labor Organization were reflected in the relevant principles [4, p. 5]. Commitment to respecting human rights requires:

a) prevent or minimize negative impacts on human rights as a result of their actions or eliminate such consequences when they occur;
b) avoid or minimize the consequences of negative human rights that are directly related to their business relationships, products or services, even if they did not cause these effects.

The main objectives of WTO law and the field of human rights are to achieve economic and social well-being. Trade rules are based on the same values as human rights: rights and freedoms, non-discrimination, the rule of law, economy, efficiency, economic well-being, and so on. Among the freedoms set forth in the WTO, the right of exporters to the free use of property, freedom of contract, non-discrimination in industry and other fields, free circulation of goods and services, etc. are included. In the field of human rights there are more freedoms. The freedoms set forth in the WTO are based on the freedoms set forth in human rights. In the context of economic globalization, the promotion of property rights beyond the WTO rights within the WTO is aimed at ensuring operations and protection of foreign investors, rather than on the human rights enjoyed by everyone, regardless of economic benefits [6]. The right to freedom of goods and services under the WTO is not related right to freedom in the field of human rights [11]. Human rights are related to individuals and some groups: it would not be right to include economic goods here. During the discussion of thoughts between Petersmann and Philip Altson happened in 2002, the conflict over the merits of trade law caused great debates. [13] WTO has a great role in development of trade law in international sphere. When WTO panels were held, "Main goals that GATT/WTO was focused on were creating market condition that would allow the development of individual activity (trade and business)". [17] But unfortunately, norms related to human rights are not directly detected in trade norms. Despite the fact that, mentioned human rights are detected in many international documents, in WTO documents, these rights are not directly, individually detected. Member states exercise trade relations not directly, but indirectly by the natural (merchant, businessman) and legal persons (transnational corporations) that are related to them. Since the WTO norms indirectly manifest themselves in individuals, Human rights norms are also incorporated into them in one form or another [6]. For a long time, human rights issue was not one of the leading issues in framework of WTO dispute settlement system. But nowadays, while dispute resolution is going on, implemention of documents relating to human rights is widely spread. Focus on human rights in framework of WTO happened after the case of 39 pharmaeutical companies against Republic of South Africa. So that, in 1997 due to sharp increase in number of the people who were infected by AIDS (4.2 million), Republic of South Africe even without the permission of the license owner, let the use of licensed medicines, means – importers could avoid patent law, and bring the medicines that are produced in third world countries to the country; in the borders of the state it was allowed to produce medicine with licensed technology. In 2001, due to very negative pressure from the society, pharmaeutical companies had to withdraw their claims.

3. RIGHT TO HEALTH

What is the right to health protection? UN Committee on Economic, Social and Cultural Rights includes following to the main elements of right to health protection:

- Medical care;
- Preventive measures;
- Treatment and supervision over the treatment;

Main guarantee element of this right is the easy access to quality medical means and necessary medicines. Adoption of the Doha Declaration is related with exactly this case – widely spreading of AIDS in African countries. Doha Round of WTO, as it is seen from the name was held in capital city of Qatar, Doha in 2001. Provisions of this round were so important for the development of international trade that it is called "round of Millennium". Main document that was adopted during the "round of Millennium" was Doha Declaration. Doha Declaration was providing compromise between developed and developing countries. Doha Declaration contains 9 directions in it:

1. Agriculture;

2. Services;
3. Non-agricultural products;
4. Legal norms;
5. Helping trade;
6. Intellectual property;
7. Dispute regulation mechanism;
8. Trade and environment;
9. Special distinguished regime; [14]

First time that Doha Declaration was used in court as a source was in case Thailand against the fund of medicines against AIDS pharmaeutical company Bristol-Myers Squibb. [3]

4. TRIPS

If we look at the practice of Western African country Kana, we can see that countries who are parties of the Doha Declaration use the provisions of TRIPS agreement for the protection of public health in following cases. Removing the medicines from the list of products that need to be licensed. In fact, direct interpretation of TRIPS agreement prohibits it, but in case of correct justification of such kind of actions, it states that it is allowed. In legislation of Kana, government could remove the medicines from the list of licensed discoveries until 2003, and after according to conditions of TRIPS agreement it was abolished. According to WTO legal norms, such kind of actions are considered as unsuccessful. During obligatory licensing, defining the competences of the entrepreneurs, the amount of "suitable compensation" [2, article 31 (h)] is not directly defined. It has pros and cons. Committee that was founded in Kana, in order to define the scope of competences suggested payment of license payment in amount of 1 % of retail selling price of the medicine. Canada made the licensing of medicine obligatory in order to export medicine to developing countries. In this country, according to value for importer country in UN Human Development Index, payment in amount from 4 % to 0,02 % for medicines is defined. On condition of exhaustion of intellectual property right, implementation of parallel import. Kana legislation allows the parallel import of less valuable medicines that are produced by implementing patent right. In this case, the rights of right owner is protected [9]. General Council Decision on the Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health was adopted of 30 August 2003. According to this Decision, WTO members are allowed to issue compulsory licenses [15] to export medicines to countries with insufficient or no manufacturing capacity in the pharmaceutical sector. Thereby the parallel import right of Developing Countries was consolidated and the issue related the compliance of ZAR legislation to TRIPS norms found its solution. However, Decision sets the terms for implementation of parallel import [7, b.2a]. This state must be Developing Country (the country must have insufficient or no manufacturing power and capacity) or declare the willingness to import certain medicines in advance. The type of medicine and its amount must be declared in advance. The mechanism of compulsory licensing must be strengthened within this country. Additionally, pursuant to General Council Decision on the Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health, State that declares the willingness to produce and export certain medicines carries extra obligations [7, b.2a, 2c]. Implementation of compulsory licensing within their territory and giving information about the company that produces medicines. Special distinguishable packaging of medicines and production of needed amount. Publishing of information about the amount of products supplied, awards that are paid to patent owner by trade organizations considering the value of medicine in importing country [7, b.3]. By the year of 2005, states like Canada, Norway and Netherlands made amendments in their legislations which would satisfy the instructions that were set forth for the exporting states.

According to the Resolution that is mentioned, importing states as well must prevent the exportation of relevant medical products for the second time. Other participants of the Contract, in turn, shall exercise necessary actions. Re-importation is permitted, in accordance to the organizational rules that was established amongst regional economical associations. As it seems, the Doha Declaration reflects the priority of social protection of health over economic and trade interests. In practice, the impact of trade principles of various countries over implementing the human rights began to be analyzed. As an example to that, we can show signing of the additional Contract to the Contract on Free Trade that was signed between Canada and Columbia in 21 November 2008 (came to power in 15 August 2011), which was strictly demanding the preparation of reports on the effect of trade in both states over human right issues. This is the first analyzing effort of states on that sphere. According to the disposal of the President of the Republic of Azerbaijan in 2006 August 2 "The Plan of Actions on Synchronization of legislation of Azerbaijan Republic on the process of being member with World Trade Organization to the Requirements of World Trade Organizations" was ratified. For that reason, the broad research of WTO law plays a critical role for legal school of Azerbaijan.

5. CONCLUSION

Generalizing everything that was occurred as a result of these processes we could conclude that:

- During research, interpretation process of WTO norms, international law norms and the norms relating to human right shall be considered simultaneously.
- During the solving of disputes and investigation of evidential materials, within the sources, the ones that contain crucial points about human rights shall be given detailed attention
- The effects of trade principles over human rights in different countries shall be analyzed – for ex. The Contract on Free Trade and Addition to it, between Canada and Columbia.
- WTO regulates the trade relations that occur throughout the world and serves the fair division of profit acquired from circulation. The level of economic development is a direct sign of effectiveness of realization of human rights at any state. Because financial welfare is root to the acquisition and realization of perfect progressive conditions on the sphere of human rights.

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THE DETERMINANTS OF MENTAL HEALTH IN ENFORCED WORK REQUIREMENTS

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ABSTRACT

Welfare reforms during the last few decades shifted towards implementing many variants of enforced labor market participation, condition- and obligation-based benefits intended to promote employability, individual responsibility and activation of the unemployed workers, particularly welfare clients. Typical elements of such reforms are »welfare to work« programs, mandatory community activities, training programs, individual action plans and job placements. An ongoing debate follows this conversion whether such conditionality is advancing inclusion by bringing marginalized groups into economy and society or emphasizing project of commodification by marketizing citizenship (Brodkin, 2015). While debate and research about the advantages and disadvantages of introducing mandated activities are ongoing, trend of conditioning benefits is increasingly common. The success of reforms is dependent on highly variable policy design of activational dimensions and policy implementation. Due to potentially adverse outcomes, it is necessary to explore the possibilities to enhance determinants of mental healt in mandated components of activating labor market policy and to set guidelines for attentive design of such welfare policies. While not considering ethical nature of such policy decisions, this paper explores determinants that foster wellbeing in enforced work requirements. By paralleling determinants of mental health to workfare programs we can foster wellbeing of welfare clients, create more inclusive practice and set more appropriate measurable outcomes. Consequently, this research keeps pace with trends that emphasize the need to redefine policy efficiency and intervention effect by focusing away from economic measures towards psychosocial goals (Coutts, Stuckler & Cann, 2014). Paper suggests further direction of planning workfare and enabling policies in order to enhance activation, quality of life, mental health and employability of welfare clients.

Keywords*: activation, inclusion, mental health, policy, workfare*

1. INTRODUCTION

Long established direction of welfare reforms comprises strict eligibility criteria based on principle of subsidiarity. In order to receive social assistance benefits an unemployed must accept conditioned work requirements. Such a direction has replaced rights-based social assistance benefits that were granted based on need, legal right or family status and normalize the idea of conditioning social assistance benefits (Brodkin, 2015). Justification for such instrumental behaviorism is drawn from a perspective that unemployed individuals are able and responsible for their employability. Dingeldey (2007) distinguishes two dimensions of activating labor market policies that mutually pervade: workfare dimension relates to a strict eligibility criteria and obligations that welfare clients must carry out in order to access social assistance entitlement. This dimension also includes cuts in unemployment benefit and creating individual plans that contain obligations for welfare client. Through strengthening enforced work requirements government intends to improve their employability. The second is the 'enabling' dimension that promotes employability of those hard-to-employ and helps them to adjust to labor market requirements (Dingeldey, 2007). Enabling elements include training programs, placement services, transportation subsidies, convergence with family policy like childcare, parental leave, part-time jobs. As work compensation for accessing benefits is increasing, an ongoing critics and debate follow over whether such conditionality is advancing

inclusion by bringing marginalized groups into economy and society or emphasizing project of commodification by marketizing citizenship (Brodkin, 2015). The ability to combine all these elements indicates that effectiveness of welfare reforms is dependent on a policy design. Upon this, other factors such as quality of implementation, personal characteristics of welfare clients surely affect its effectiveness. Systematic support and structured work on improving and preserving mental health are initiated over the last decades. Example of such work is Mental health in all policies approach (Joint Action on Mental Health and Wellbeing, 2016) which encourages and reinforces the responsibility of public policies to impact determinants of mental health and seeks to reduce inequalities in mental health. Important contributors to a mental health of individuals according to Wilkinson and Marmot (2003) are community interventions that improve social environment and encourage social interactions through which people feel valued and supported. Vulnerable group like welfare clients through social support has access to emotional resources (e.g., encouragement in a job finding process) and practical resources (e.g., information about job openings) that they need. Social institutions like religion, family are common sources of power, domination and social control and they are incorrectly presented as a social support through which they want to achieve compliance (Bourdieu, 1990; referenced by Peillon, 1998). Continuing Bourdieu's' logic there is a need to explore workfare ability to use or misuse formal social norms to influence behavioral and psychological pathways and create change. This paper explores determinants that relate to wellbeing in enforced work requirements. Consequently, this research keeps pace with trends that emphasize the need to redefine policy efficiency and intervention effect by focusing away from economic measures towards psychosocial goals (Coutts, Stuckler and Cann, 2014).

2. HOW TO MAKE WORKFARE A POSITIVE EXPERIENCE?

The World Health Organization (2004) as well as some authors like Jahoda (1982) highlight the importance of contributing to community, fulfilling their own potentials, having valued, productive work. As a consequence, they all contribute to a positive mental health. Jahoda (1982) argues that employment is psychologically supportive due to its latent benefits: employment gives people daily routine, provides regularly shared experiences and contacts with people outside the nuclear family, enforces activity, links individuals to a goals and purposes that transcend their own, and defines their status and identity. Loss of these latent benefits has a negative impact on the individual's well-being and, if the unemployed do not find an adequate replacement, unemployed will be psychologically deprived, which will negatively reflect on their mental health. In this context, workfare has a capability to provide some of latent benefits of paid work to welfare clients. Cohen (2004) highlights the potential of social support to indirectly buffer behavior that damages health and contributes to a various aspect of wellbeing. Because of this it is possible to question whether workfare has a capacity to support felling of social connectedness. A research on how workfare relates to employability and wellbeing has mixed evidence. Chiefly, justification for workfare requirements policy designers find in a higher employment prospects and support to some aspects of wellbeing (Hohmeyer, 2012; Hohmeyer & Wolff, 2012; Knabe, Schöb & Weimann, 2017). Hohmeyer and Wolff (2012) found that such mandated activities were effective for some vulnerable groups, those long-term unemployed welfare clients and for clients who were older than 24. Wulfgramm (2011) and Knabe et al. (2016) showed that life satisfaction of workfare clients was higher that of unemployed, but not as high as that of regularly employed. Also, Knabe et al. (2016) founds that emotional wellbeing of workfare clients was higher than regularly employed and unemployed due to workfare partially restore some psychosocial, latent functions of work. Author explains that welfare clients feel good while participating in workfare due to it partially restored identity that they derived from work and because it moved them from daily routines when they were unemployed.

Mead (2008, p.69) highlights the empowering effect of workfare and state that those disadvantaged are unlikely to regular work unless they are required to as a condition of support by society and states. Also, among the justifications for workfare, we can find ideas that workfare keeps generic skills, communication skills, work habits of welfare clients, reinforces appropriate attitude toward work (Friedli & Stearn, 2015). Other authors like Warburton and Smith (2003) emphasize that workfare disempowers welfare clients, disrupts their sense of autonomy due the lack of choice. Tisch and Wolff (2014) hold an opinion that workfare participation did not improve indicators of positive functioning such as self-efficacy. Crisp and Flecher (2008) reported that workfare did not provide participants skills and experience needed to gain employment nor support which clients with multiple barriers needed. Due to little evidence weather workfare increases employment rate, different forms of symbolically-paid jobs are created, and the conditions remained strict (Crisp & Flecher, 2008). Workfare is planned and implemented within the social welfare system. Many variations in designing and implementation of workfare make harder to make conclusion what works and under what condition it works. Review of the literature gives some indicators that can guide those implementing workfare requirements. Hohmeyer and Wolff (2012) showed that workfare activation can be effective on the employment prospects for participants who have been jobless for several years but ineffective for participants who were recently employed and younger than 24 years. That is why countries tend to mandate activation through workfare programs after welfare clients receive benefits for a certain period. Also, vulnerable group are those long-term unemployed and older adults because of isolation detrimentally effects their health (Holt-Lunstad, Smith and Layton, 2010). For this reason, workfare might be beneficial for these vulnerable groups. Kampen and Tonkens (2018) claims that without finding a paid job previous empowering effect vanishes after some time. Such evidence can be easily applied to design of welfare policy and selection of participants. Welfare clients who help others or work for common good expect a reward and their effort to be valued over the time. Similar, Hohmeyer (2012) such adverse effect of time explains in regard to time restrictions for job search and motivation. Design of workfare policies should consider such clients' changing needs, expectations and later deleterious effect (Kampen & Tonkens, 2018). As seen, orientation on individual responsibility does not solve lock-in problems of welfare clients, which is why the focus should shift towards solving structural problems of unemployment. Equally important as design of welfare policies is an implementation of certain policy in practice. Through experiences of sixty-six workfare, clients Kampen and Tonkens (2018) concluded that quality interaction between workfare client and caseworker can have an empowering impact. Relevant characteristics that affect the quality are following: a caseworker is respectful, takes time to look at clients' previous experience and violated life stories in order to accordingly propose appropriate workfare activities. Workfare activities that are in collision with job search activities, care for dependent family members, household production or activities in the shadow economy, may erode possible enabling and integrating elements of workfare (Hohmeyer and Wolff, 2012). Also, it is important that the welfare clients consider workfare suitable to match their personal skills. It is therefore important that caseworker and workfare clients have the discretion to decide together which intensity is beneficial to workfare client. Various workfare activities that caseworker can offer to welfare client can also help in tailoring and softening mandated requirements. When workfare activities include helping others and promoting social justice, workfare has a potential to produce positive impact on welfare clients (Reinders & Youniss, 2006). Also, according to Warburton and Smith (2003) mandated community service can be less fulfilling because participants do not experience personal or social benefits from their involvement. In the empowerment process co-creation and engagement with clients are prerequisite and therefore it is necessarily to include welfare clients with his present emotions and problems in planning and selecting workfare activities that are meaningful for them.

Brodkin (2015) states that in order to foster enabling elements of workfare it is necessary to determine how those who execute written policy are implementing its regulations. Guidelines that favor processing efficiency and production of employees systematically foster practices that emphasize commodifying elements and undermined the supportive ones (Brodkin 2015). Simplification and ritualization of complex job tasks and reductive adaptation are common strategies through which those implementing workfare enhance their processing efficiency. Such strategies often harm screening for adequate services and other tasks that aim at supporting welfare clients. Strandh (2001) and Wulfrgramm (2011) show that positive effects on wellbeing obtain activation interventions where welfare clients gain work experience, interventions that provide a connection with employed and real workplace roles and those interventions that contribute to feel of sustainable progress, employment chances and a sense of control. Workfare often encompasses temporary work jobs that must be in public interest and that are not carried through regular employment. However, many activities are not related to a regularly employed. Examples of such activities are helping in food banks, public kitchens, reading to elderly, young children, accompanying teams on trips, snow clearance, painting fences, grass mowing. Yet all of them are valuable activities and as Kampen and Tonkens (2018) such meaningful activities can have positive effect on mental health. More evidence can be found in research among adolescent who were engaged in compulsory community service. Henderson, Pancer and Brown (2014) discovered that positive evaluation of community service requirements is generated through flexible time schedule, if adolescents perceive positive effect of community service on their development. Gaining communication skills, organizing skills and leadership skills can help adolescents' careers to develop. Also, it was important to adolescents to fell that they were doing something fulfilling, making a difference in the lives of other individuals and community, while felling fun and appreciated. Logistical problems, difficult and overwhelming tasks were important factors for evaluation of community service. Workfare also can have positive impact on self-respect if welfare clients feel respected through their status, if they are enjoying in mandated but meaningful activities, if working environment is less strict (Kampen & Tonkens, 2018). With careful planning and implementation workfare client can be enrolled in activities of shared values and interest and work toward individual and common goals. Seeking to improve quality of experience for those mandated to perform workfare, we should consider what makes workfare rewarding and enjoyable experience. This paper accents aspects conditions and factors that can help foster mental health and wellbeing of workfare clients which those designing and implementing workfare programs should consider. By paralleling the elements that foster inclusion, self-enrichment and employability workfare experience should be designed in a way that offers welfare clients sense of accomplishment and reduces social and health disparities. Although previous evidence has led to important insights, the next logical and necessary step is to organize them. While planning and implementing social policy as well as measuring its' effectiveness, welfare reforms could benefit from having practice framework or theory that offers guidelines. Social quality theory is an example of theory that offers broad framework through which holistic and quality policy initiatives can develop. Social quality model (Figure 1.) distinguishes four interactive conditions that provide context necessary in order to have god health and wellbeing and for people to realize themselves as human beings (Holman and Walker, 2018).

Figure following on the next page

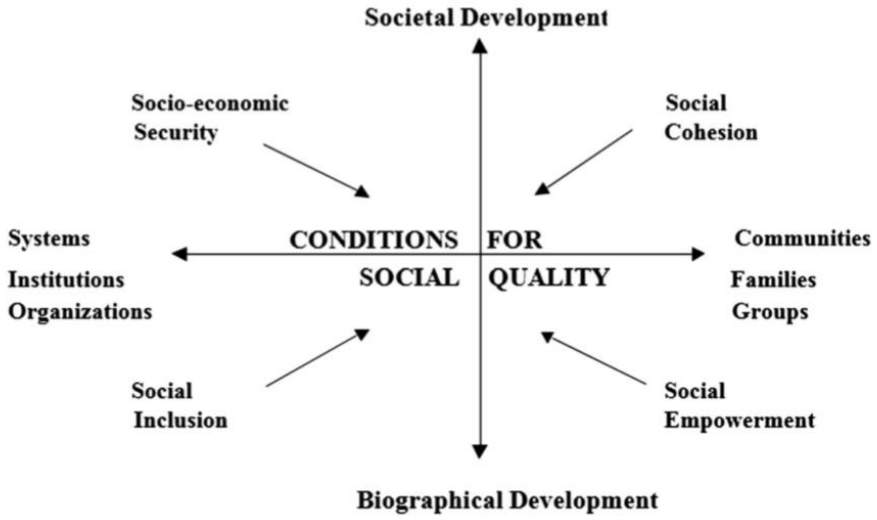


Figure 1: Social quality model (Holman and Walker, 2018, p. 248)

Economic security means that people have access to a various material resources and services for decent life. With sufficient and regular income, equal employment prospects, good housing and working conditions and carefully covered network of quality services it is reasonable to expect health improvement and wellbeing. Social inclusion encompasses to what extent people feel accepted and integrated in institutions and social systems. In this context a quality policy would be one that strives to ensure a high level of human rights, which undertakes specific interventions to fight oppression and condemn the perception of welfare clients as scroungers. Social cohesion related to the degree of socially binding trust within society which is an outcome of shared and accepted values and norms. Idea of having community that accepts different, vulnerable groups, community that promotes shared values mutual obligations through concrete actions can form a base for welfare clients to feel valued and have trust in their environment. Social empowerment encompasses availability of structural and individual support mechanisms enable people to develop their capabilities and participate in society. Aside to its primary function to evaluate the quality of society, such a model can be a starting point to help national and local government to make policy choices that value health and wellbeing, to implement practices and evaluate effectiveness of various activation measures.

3. CONSLUSION

While workfare obligations are continually imposed, there is a need to take care of implementation and provide quality (material and social) support to welfare clients. Responsibility is largely on the side of workfare participants and based on this it is expected from them to work on their own employability, to be job ready, have right mindset and pursue any kind of employment. This should be accompanied by the same quality protection – higher household income and increased availability of real paid work. Alongside individual responsibility, it is important to take in consideration and focus on responsibility of systems and structures to take more responsibility and actions in order to deal with poverty and quality service.

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GOODWILL, THE PROBLEMATICS OF DETERMINATION OF ITS VALUE WITHIN THE MARKETING STRATEGY

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ABSTRACT

The meaning of Goodwill is not the same in the world but generally is considered to be an integral part of the company's value and company assets mainly intangible assets. The authors' definitions differ. In the world, for example, they are J. M. Yang, D. C. Mueller, H. P. Hughes. In the Czech environment, it is Zelenka, Kincl, Foret and Kulil. The authors refer to the definition of Kulil, according to which the authors will continue to work. Goodwill is related to the implemented marketing strategy in all cases. This connection is done consciously or the management of the company does not even realize it. This whole process takes place independently of his will. There is a direct link between Binding Goodwill and marketing strategies in the internal external environment of the enterprise. A key issue for a business asset is the valuation method or more accurately assessing the present value of goodwill. There is also a need for an annual review of goodwil valuation to capture its development in the context of marketing startegies, from its growth to the decline and emergence of badwil. The prevailing valuation through book value is inappropriate. The description of the current situation in the Czech Republic is complicated by the fact that goodwil expresses itself as the difference between the accounting and the market price. It can be used and recorded only in cases when the company was acquired. With regard to goodwil and implemented marketing strategies, this is a poor condition. The link between the value of goodwill and the marketing strategy should be captured in the valuation methodology. The existing methodology allows the use of a number of methods. Comparing these methods leads to recommendations that optimally meet the requirements to capture the nature of development and the value of goodwill.

Keywords: *Goodwill, Marketing strategy, Problematics, Value*

1. INTRODUCTION

The notion of goodwill is not new, it has already appeared in the 16th century as a good will. Goodwill was used to capitalize future revenue from intangible assets (Kulil, 2014, p. 19). Already in the 19th century, the phenomenon of goodwill evoked extensive discussions especially among the professional public. We can consider it a legal, economic and accounting issue as well. The result of extensive discussions with the professional public since the 19th century is considered goodwill as a legal (Justia.com"US Courts of Appeals Cases. Dostupné z http://law.justia.com.cases/federalúappellatecourts/F2/551/1057/44098), economic and accounting concept.

In the 20th and 21st centuries, the issue has deepened and many other definitions are testified. For example, the Merriam-Webster Dictionary provides three different definitions or concepts of goodwill:

1. „In attitude of freindless or kidness: BENEVOLENCE
2. Cheerful acquiescence or willingness.
3. A good relationship, as of a business with its customers or country with other counties". (Merriam-Webster dictionary**,** 1997, s. 539).

Within the economic concept of goodwill, there are a number of different concepts and definitions of each other. For example, J. M. Yang, in his book Goodwill and Other Intangibles of 1927, defines goodwill as follows: "Goodwill represents the present value or capitalized value of the estimated future profits of an established enterprise, in addition to the level of the normal results that could be reasonably assumed to be realized by a similar newly created company" (Zelenka, 2006, p. 19). D.C.Mueller states that goodwill and brand capital are routinely solved by analysts in the area of business and marketing, due to the measurement of the value of assets, in particular the name of a company or brand, and then between accounting and business analysts, but is little used by the economist (quotation of WEB https). HPHughes in the historical accounting encyclopedia characterizes goodwill as: The difference in one company's ability to generate a profit compared to another or an average firm (HPHughes 1982, with 18) and also states that the name is derived from the originally good feeling or some goodwill of the entrepreneur customer. It defines its basic characteristics as immateriality, belonging to a business entity, independence of acquisition costs, differential and monopolistic advantage, instability of value, or technical uselessness (H.P.Hughes 1982, p. 19). Kulil V. clearly explains: According to established international customs, however, this is a good name for a business that brings about improved economic results, primarily due to good business policy, and is the result of customer relations, advertising and advertising (Kulil, 2014, p.14).
The authors lean toward Kulil's concept and continue to follow. Despite the unequivocal expression, goodwill is part of the company's intangible assets and brings positive economic effects. The issue of accounting concept or expression of goodwill should be divided into two areas. The first is represented by internal accounting. It is not governed by laws or regulations and is guided by the firm so that the economic reality and specifics of the company are captured as close as possible to its real economic image. So the company can capture, appreciate and track the development of its goodwill. Goodwill expresses as an intangible asset which may increase or decrease to negative goodwill, which is referred to as badwill. Accounting concepts in the form of internal accounting correspond to the specifics and needs of the firm but are not available to external entities. The second area provides double-entry financial accounting. Expression, valuation and charging of goodwill are not uniform. It depends on the accounting methodology used in the country or the entity (IFRS, US GAAP, national adjustments). The method of capture, valuation, classification and billing is not uniform, based on the relevant methodology used by the firm. Incomprehensibility occurs in the items of the financial statements, even at the amount of the goodwill item. Generely goodwill can be viewed as intangible asset only if it is acquired in a business combination. Goodwill cannot be capitalized because it is not identifiable therefore intangibles that are not identifiable are recognized as part of goodwill (SFAS 142.s.39, 2007): 'Acquired identifiable assets in a business combination are valued at their fair values2. The remaining value after the identification of all tangible and intangible assets is than assigned to goodwill. '3

The problem icrease because in accounting goodwill is intangible long-term asset that is not included in the business accounts and arises when a company acquires another entire business.

Goodwill is recorded when a company purchases another company and the purchase price is greater than the combination of: the fair value of the identifiable tangible and intangible assets acquired, and the liabilities that were assumed. Goodwill is reported on the balance sheet as a noncurrent asset and the amount is subject to impairment test at least once per year.

1.1. Recognition of goodwill

Sets goodwill as the difference between the cost of the acquisition over net fair value of the identifiable assets, liabilities and contingent liabilities.

1.1.1. IFRS

In short words goodwill represents future economic benefits from assets that do not meet the criteria for recognition. Recognition is important. After the recognition goodwill should be tested for impairment annually. On acquisition day, goodwill has to be valued to cash-generating units IFRS (IFRS 3. 2007 p.51,). The biggest change in IFRS is in the negative goodwill, newly named as discount on acquisition: "It occurs when the acquirer's interest in the net fair value of acquiree's identifiable assets, liabilities and contingent liabilities exceeds the cost of acquisition. Discount on acquisition according to the new standard is now immediately recognized in the income statement for the period (IFRS 3. , 2007, p.56). This also represents a significant change as amended in the new.

1.1.2. US GAAP

According the US GAAP goodwill is recorded as the excess of the cost of an acquisition price over the fair value of acquired net assets. In short words goodwill is recorded only when the carrying amount of goodwill exceeds its implied fair value (SFAS 141., 2007, p.43,). According the Research paper Accounting Treatment of Goodwill in IFRS and US GAAP (JERMAN, MANZIN, 2018, p. 6): "To test goodwill for impairment, companies must first assign purchased goodwill to reporting units. Companies assign goodwill to reporting units by comparing the estimated fair value of the reporting unit with the fair values of the unit's identifiable net assets. Two-step impairment shall be used to identify potential goodwill impairment and measure the amount of the impairment loss to be recognized (if any). Those two steps are:
Estimating the fair value of the companies reporting unit comparing with its carrying amount
Comparing the implied fair value of the reporting unit goodwill with the carrying amount of that goodwill. According to (SFAS 142, 2007, p. 18)

1.1.3. Czech Republic

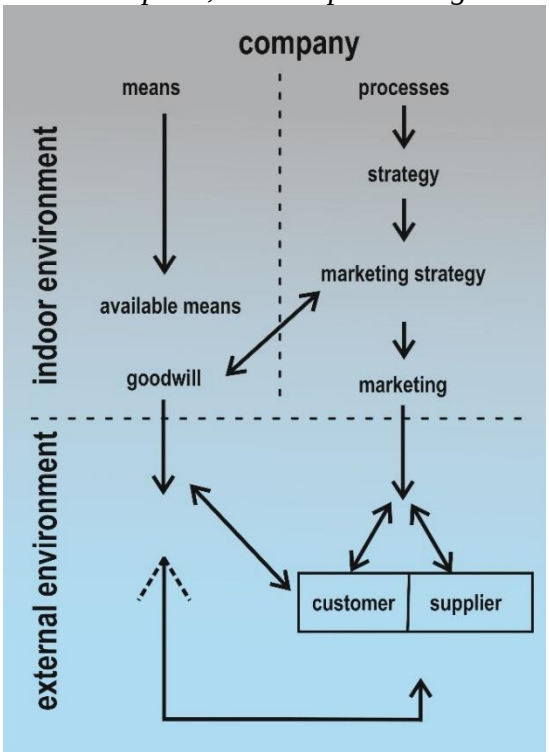
The issue of goodwill is addressed by the Czech Accounting Standard for Entrepreneurs No. 011, part of the operation with the enterprise. Pursuant to Act 563/1992 Coll. §24 para. 3 (b) adjustments may be made for individual asset items as set out in the Act on Accounting in §25 or apply the method according to Decree 500/2002 Coll. §61a para 1; ie the difference between the purchase price and the net book value is recorded and recognized as intangible fixed assets - goodwill taking into account §6 para. 1 and para 3 (d) Decree 500/2002 Coll. The National Accounting Board has already responded to the case of different book values and tax bases in the case of an asset that was not acquired by transfer or transfer and by the issuance of Interpretation I-1 Transitional differences in the initial valuation of assets. The need for this interpretation was triggered in 2005 by a special provision of the Czech Income Tax Act which limited the tax deductibility of the purchase price of a passenger car to CZK 900,000 and a year later to CZK 1,500,000. Because the car is massively used for tangible fixed assets, the professional public has greatly welcomed this interpretation. The Interpretation states that the acquisition assets whose initial carrying amount differs from the input tax base cause a temporary difference.

The impact of such a temporary difference in the form of deferred tax should be recognized in accordance with the nature of the transaction, i.e. as part of the cost of the purchase asset. Include deferred tax in the purchase price. From different definitions, respectively. expression of Goodwill, the authors consider his economic expression in V.Kulil's concept as objective because the legal concept and the concept of the accounting system is a subsystem in terms of system concept. These subsystems of economic conception are determined and fully subject to the discipline in which this term is used. For the needs of the company, the legal concept is specific, implies and is influenced by both national and international legislation. The authors see a general agreement between Goodwill's economic, legal, and accounting interpretations in that it is part of the company's intangible asset that brings it to economic, positive and negative effects. It should have been captured, valued and accounted for by its changes at least at the level of intercompany accounting. This will create at least a minimal prerequisite for monitoring and influencing it.

2. THE IMPACT OF MARKETING STRATEGY ON THE VALUE OF GOODWILL

The following figure shows that goodwill affects internal processes in the company and external processes, especially in relation to customers and suppliers. It is also influenced by both positive and negative concepts. There is a direct link between marketing strategy and goodwill because marketing strategy, as part of the company's strategy, affects goodwill so as to influence the behavior and access of both customers and suppliers. This is an objective value that is an integral part of the company's intangible assets, as well as the company's know-how or the results of its own research or development activities.

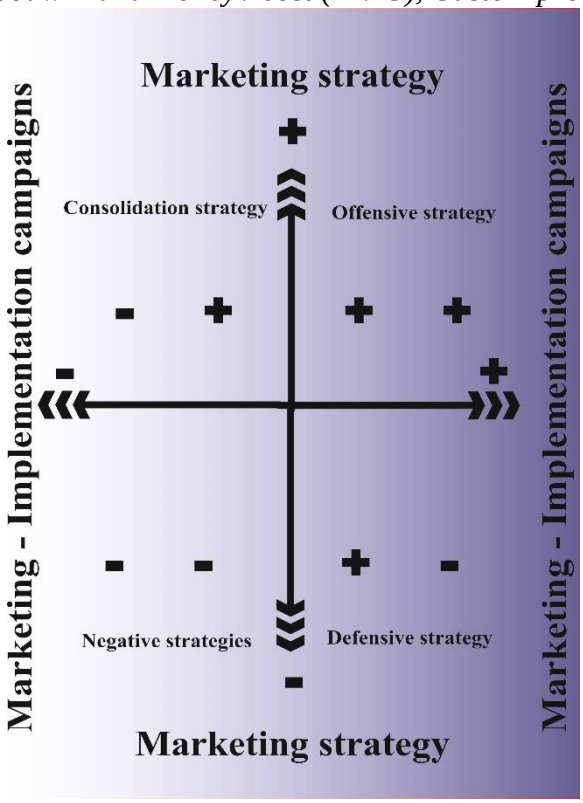
Figure 1: Binding Goodwill and marketing strategies in the internal external environment of the enterprise, Custom processing



2.1. The impact of marketing strategy on the development of goodwill

When marketing is understood as the process of marketing strategy implementation, it is done through marketing campaigns that affect the development of goodwill. In general, development can be simplified as shown in Figure 2.

Figure 2: General scheme of marketing strategy implementation and their possible impacts on goodwill and money / cost (M / C), Custom processing



where:
M / C = money / cost
MA = marketing activities
MS = marketing strategy
G = goodwill

For simplicity, the campaign can be expressed as a decrease in money expressed in money form. So as a cost (COST) (money / cost) = M / C. M / C will refer to money or costs. Expressing goodwill in accounting. The problem between the expression of the purchase price and the company's accounting price. They can never coincide. The accountant is the synergy of the company's methodology and strategy in capturing (expose) assets / liabilities cost / BVA income vs. historical cost and tax base optimization. Market price - DEFINITION is immediate and expresses buyer's strength (weakness), location, taste (necessity) of the seller. Based on this comparison, goodwill arises, but it is not goodwill.

2.2. Valuation by the Brand Value Added (BVA) method

This is a classical economic analysis complemented by a survey of factors that greatly influence the demand for business and brand performance. The survey requires a broad sample of respondents and conducting surveys at different levels. Especially: between two different brands, between two different time periods, between two target subsegment groups, between two product classes (Slabý, 2014). To ensure transparency, objectivity and re-use, we need to identify ten key indicators that are the factors behind the βrandβeta^{TM} method. Different attributes such as market time, distribution, market share, sales growth rate, price surcharge, price elasticity, marketing costs, advertising, and brand are awarded a score of 0-10 points. Depending on the point value, the company gets into groups which are in Table 1. BB and lower ratings represent a weak goodwill.

Table 1: Point scores of βrandβeta™

Body	**91-100**	**81-90**	**71-80**	**61-70**	**51-60**	**41-50**	**31-40**	**21-30**	**11-20**	**0-10**
Zařazení	AAA	AA	A	BBB	BB	B	CCC	CC	C	D

Source: in Haigh, 2002, p. 27, Custom processing

For comparison, the average rating is represented by the BBB rating. Rating B and lower represents a weak mark. The resulting discount rate is obtained after the sum of the risk surcharges and risk-free discount rates.

$$\mathbf{Y_n = r_f + RP}$$

where:
$RP = r_f * (n-1) * (100 – ββ / 100)$
Y_n – discount rate
r_f – risk-free discount rate
RP - risk premium
(n -1) – coefficient of risk premium
ββ - the number of points obtained during the βrandβeta™ analysis.

Following is the calculation of the brand value, which is based on the added economic value for each year, multiplied by the BVA index. The calculated value is then taxed and discounted to the current value. The value of the tag is calculated by summing these values as
chosen period (Haigh, 2002).

2.3. Valuation by point rating

It is based on the evaluation of the fulfillment of these criteria in particular. Originality, ease of rememberability, simplicity, aesthetic appearance, length of protection, product quality, country-wide coverage, country use, profitability, relationship to business name or origin, percentage of export. This method deals primarily with the company brand, but can also be used for goodwill valuation. The weakness of this method is mostly an expert gathering of information. This is a "soft" method based primarily on the evaluator's experience.

2.4. The goodwill method

This is an accounting statement of the value of the goodwill of the company. To build goodwill affects almost everything the company does. It builds on quality products and services, public relations, stakeholders, long-term social responsibility, and above all marketing strategy, its implementation, and other marketing activities. From the accounting point of view, goodwill is a part of the Company's assets. Goodwill is usually part of the Company's financial statements. If this is the case, goodwill must be based on thorough analysis and analysis. In the Czech Republic, the concept of goodwill has been known in accounting since 2003. Jeho stanovení je rozdílem mezi hodnotou nabyté jednotky mínus čistá aktiva jednotky v přeceněných hodnotách aktiv.

Goodwill= HJ−CAp,

where:
HJ = value of the acquired unit
CAp= net assets of the acquired unit

Goodwille is a decree to the Accounting Act characterized as a "positive" or "negative" difference between the valuation of a business or its part within the meaning of the Commercial Code acquired principally by the purchase, deposit or appraisal of assets and liabilities as part of the company's transformations and by sum of its individually revalued assets less committed commitments. Goodwill is depreciated on a straight-line basis within 60 months of the acquisition of a business or part thereof in the cost, and, in the event of a company's change, goodwill is depreciated over the effective date of the change. Negative goodwill is amortized evenly for five years from the acquisition of a business or part thereof in income, and, in the event of a company's change, goodwill is depreciated to income from the date of the decisive change. An entity may decide on a goodwill or negative goodwill depreciation period of more than 60 months; the entity shall justify this in the notes to the financial statements. The eventual change in the purchase price of an enterprise or its part will adjust the value of goodwill or negative goodwill, without changing the depreciation period (Daněk, 2015, p. 18). With regard to the above methods, it can be stated that none of them complies with the concept of goodwill defined by Kulilem. To determine the value of goodwill, it is necessary to accept the need to set criteria and their score so that these criteria, whatever the "soft" group, are based on goodwill, and are also valued by a weighting factor that adds or takes weight to the points achieved. Allotment of the same point value to the criteria is considered by the authors to be correct because it is the general parameters of goodwill. Weight is then a matter of business and enterprise size.

3. CONCLUSION

We proceed from the fact that, in the case of economic concepts of goodwill, the authors more or less agree that it is an intangible asset. We assume that in the case of economic concepts of goodwill, the authors agree more or less that it is intangible property. In particular, the expression of goodwill as the difference between accounting and market value is discriminatory, since it can be used only if the acquisition has taken place. The essence of the βrandβeta^{TM} method is that it captures the parameters by which goodwill is valued. Also, how to score and then sort in groups, see tab. No 1 is methodically consistent with the goodwill specifications. However, the determination of individual items (criteria) is less suited to the characteristics of goodwill. There is also a lack of criteria that is clearly different for different business and globalized markets. For valuation using point ratings, criteria that are more likely to reflect brand value than goodwill appear in the rating criteria. In addition, an expert assessment - expressing the level of the individual criteria is based only on the evaluator's experience and not on the basis of objective research by groups of suppliers, customers, competitors. There is no public rating that is not included in the above groups and represents a general population whose brand awareness should also be tested. There should be a suitable, if possible, objective way of determining goodwill. This method should be generally acceptable. If there is persistence and appreciation of goodwill on a subjective business approach, which is certainly the way possible, the outcome of the valuation then depends entirely on the firm's approach and can not be compared with other business entities in the field. This situation makes it difficult to include goodwill in decision-making processes such as procurement procedures, credit granting, bank guarantees, investor interest, investor input into the company, etc. Developing the methodology appropriate for goodwill valuation is considered by the authors to be a key problem of its inclusion in the company's assets and value- within the marketing strategy.

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ORGANIZATIONAL IDENTITY OF UNIVERSITY IN MERGER PROCESS

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ABSTRACT

Consolidations, which are radical changes, lead to profound identity changes, which can take positive or negative forms from the point of view of the university's development. Positive changes in organizational identity lead to identification with a new, consolidated university and a sense of satisfaction with its development and faith in the possibilities of self-realization in this organization. Negative ones lead to a crisis of collective identity, cultural confusion and passive employee attitudes. At the level of individual identity, mergers can lead to identification with a new organization and a sense of self-fulfillment, or they can turn towards rejecting change and frustration of employees. University merger research, adopting the perspective of social identity, indicates that the key factor affecting willingness and, consequently, the pace of integration is the perception of prestige and the resulting degree of identification with the merger. Therefore, the key question is whether university employees will benefit from the status of a merger. If we are dealing with a strategic combination of two prestigious organizations, which is intended to enter the "world university league", there is a chance to increase the status of individual and collective organization's stakeholders. Similarly in the case of other types of mergers, if the weaker university is absorbed by a stronger one, then there is a chance of increasing the prestige. I.H. Gleibs and others confirm the existence of discrepancies in the expectations and actual results of university fusion, based on identity and prestige. The aim of this article is to identify the issues of organizational identity in the processes of university merger. The article discusses the complexity of the organizational identity of universities merger processes. The research methodology was based on qualitative research - case studies of universities in Europe.

Keywords: *university mergers, organizational identity, university management, mergers and acquisitions, higher education sector*

1. INTRODUCTION

In most countries, the consolidation of the universities is a bottom-up process, but the tendencies to connect universities at the central level are beginning to be reflected in public policies. In some countries, top-down consolidations, which are more controversial, are also conducted, for example in South Africa, Russia, China and Norway (Karodia, Shaikh, Soni, 2015). The objectives of mergers are therefore diverse and may include: entering the league of "world class universities", rationalization of education and research networks, as well as restructuring aimed at increasing the efficiency of the education process (Cai, 2016, pp. 7–24). The specific objective pursued through mergers may be to increase the access and quality of higher education addressed to disadvantaged groups (Sułkowski, Seliga, Woźniak, 2017).

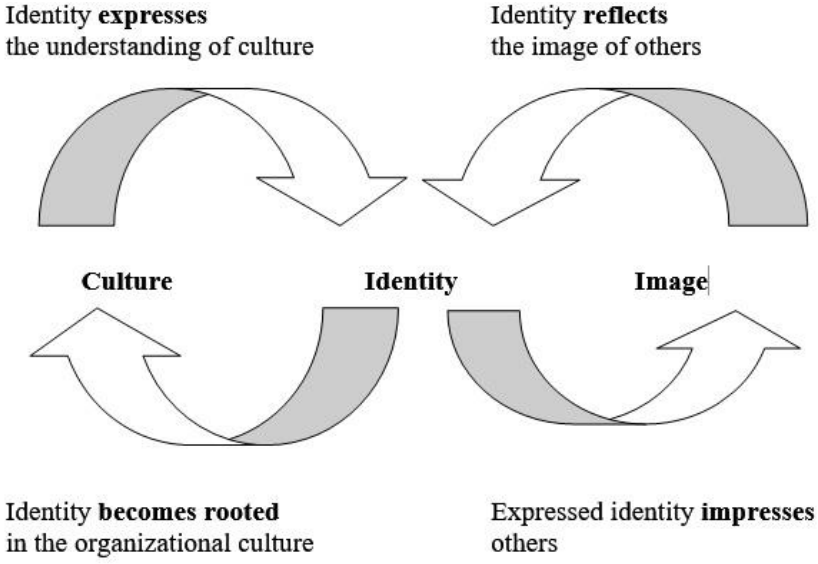
Such was the idea of consolidation and transformation of higher education in South Africa. Interesting examples of institutional consolidation are entities from the education sector, which is subject to significant state regulation in most countries (Sułkowski, 2018). On the one hand, we deal with the market processes of consolidation of private (non-public) universities in many educational systems. On the other hand, there are consolidations of public universities, which are often stimulated by central or regional authorities and form part of public policy. An important observation is that the implementation of these mergers is the effect of various motivations. This is, of course, an attempt to rationalize the functioning of the higher education and science system. Autonomous development of institutions of higher education and science, which is devoid of strong coordination, creates a certain scope of redundancy of education programs and irrationality of resource management, which can be partly resolved by state intervention. In terminology related to combining organizations, the following terms are used: mergers and acquisitions, consolidation processes, buyouts (Kaczyński, 2013, pp. 95–111). Usually, the terms mergers, acquisitions and buyouts refer to the organizational level, whereas consolidation may refer to both the organization and the larger system, e.g. higher education. The concept of mergers and acquisitions (M&A), is most common in English bibliography. In English, in which the literature on mergers and acquisitions is the most extensive, besides mergers & acquisitions, terms such as takeover, consolidation or buyout are also used (Frąckowiak, Lewandowski, 2009, p. 24). In Polish literature, following the English and French terminology, the terms akwizycja (acquisition) and mariaż (merger) are also used. In the scientific literature, a merger is understood as a combination of two or more economic entities in a new organism as a consequence of the agreement between these organizations. The acquisition may be defined as the purchase of one economic entity by another, the acquired organization is absorbed into the structure of the parent organization or functions as a dependent organization (Łopacińska, 2014, pp. 583–594). Thus, mergers and acquisitions are two basic types of consolidation of legal entities. The merger of the organizations refers to cases in which two (or more) independent legal entities are transformed into one. A process in which a legal entity is one of the merging organizations is called incorporation.

2. MERGER PROCESS AND ORGANIZATIONAL IDENTITY

Another important area of cultural analysis is the transformation of organizational and individual identity of academic employees in merger processes. Consolidations, which are changes of radical nature, lead to profound identity changes, which can take positive or negative forms from the point of view of the university's development (Ylijoki, Ursin, 2013, pp. 1135–1149). Positive changes in organizational identity lead to identification with a new, consolidated university and a sense of satisfaction with its development and faith in the possibilities of self-realization in this organization. Negative ones lead to a crisis of collective identity, cultural confusion and passive employee attitudes. At the level of individual identity, mergers can lead to identification with a new organization and a sense of self-fulfillment, or they can turn towards rejecting change and frustration of employees. University merger research, adopting the perspective of social identity, indicates that the key factor affecting the willingness and, consequently, the pace of integration is the perception of prestige and the resulting degree of identification with the merger. Therefore, the key question is whether university employees will benefit from the status of a merger. If we are dealing with a strategic combination of two prestigious organizations, which is intended to enter the league of "world class universities", there is a chance to increase the status of individual and collective stakeholders of the organization. Similarly in the case of other types of mergers, if the weaker university is absorbed by a stronger one, then there is a chance of increasing the prestige. I.H. Gleibs and others confirm the existence of discrepancies in the expectations and actual results of university merger, based on identity and prestige.

Employees of a university with a lower status in the United Kingdom showed a higher degree of support and identification with the merger, expecting a more equal representation in the management of the consolidated university. The staff of higher education institutions preferred the incorporation model and identified less with the merger and consolidated university (Gleibs, Tauber, Viki, Giessner, 2013, pp. 177–190). Considerations on relatively persistent and key values that distinguish the organization refer not only to the concept of organizational identity, but also to mission, vision, organizational culture and image. These four areas are engaged in the organizing processes and undergo significant transformations during the merger (Seliga, Sułkowski, Woźniak, 2019). The mission and vision of the organization are concepts taken from strategic management, and have a cultural aspect related to the projection of the most important values. L.W. Rue and P.G. Holland note that the mission determines the essence and sense of the organization's existence by formulating the most general goals and domains of activity (Rue, Holland, 1989, pp. 7–8). J. Brilman describes the vision as a short formula specifying the main vocation and goals of the organization (Brilman, 2002, p. 79). The mission of the organization should be based on the culture and identity of the organization, although it must only consist of such values that have been recognized as worth disseminating and contributing to the positive image of the organization. The vision is usually created by managers, but it does not have to be disseminated. It plays the role of an idea of the development of an organization in the future based on achieving the defined goals and values. One can see the interdependence relation between the mission of the organization and its identity and culture. Organizational culture and identity are based on key values and arise through the interdependence of spontaneous and intentional collective actions. M.J. Hatch and M. Schultz clearly differentiate the culture, identity and image of the organization, at the same time indicating their mutual dependence (Sułkowski, 2012). "The organizational identity is neither completely culturally conditioned nor fully resulting from the image of the organization, it is rather created by the interdependence of these two areas" (Figure 1) (Hatch, Schultz, 2000, pp. 24–25).

Figure 1: Organizational identity dynamics

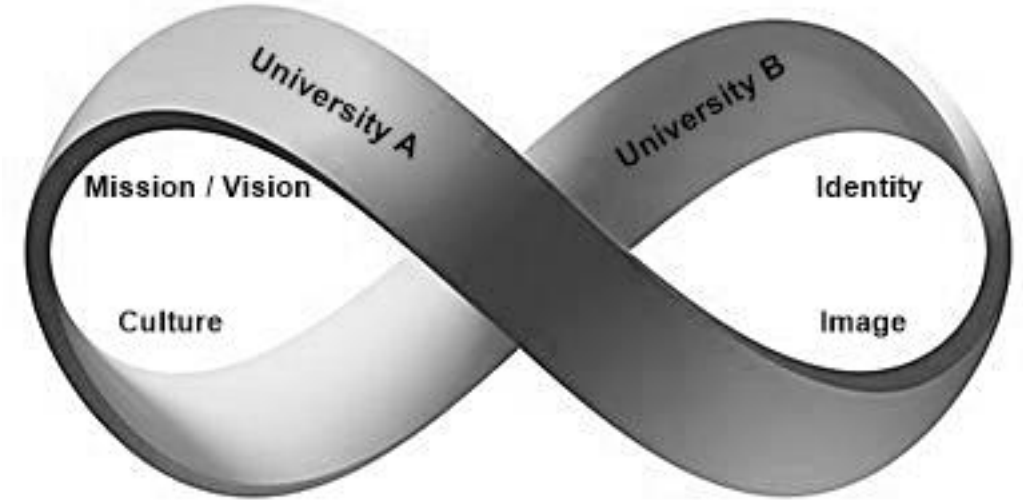


Source: Hatch, Schultz, 2004, p. 379.

The relationships between organizational culture, identity and image are reflected in the four processes taking place between these spheres. The first process reflects the images of the company created by other people in its identity (mirroring). This reflection links the image of the organization that was created in the environment with its identity.

The second process is the rooting of identity in the organizational culture (reflecting). Identity affects the norms and values in the organization and is confirmed in the organizational culture. Culture can be expressed by identity (expressing). Identity can impress others through image (impressing) (Hatch, Schultz, 2004, p. 379). This model should be supplemented with mission and vision, which are types of an ideal image of the organization and its future, with the difference that they arise for the organization's own purposes. They can be used to manage the meanings, along with the image of the organization (Sułkowski, 2012). In the university merger processes a link should be made between: identity (Ylijoki, Ursin, pp. 1135–1149), organizational culture, mission and vision, and the image of the merging universities. The consolidation of universities is a strategic (mission and vision), cultural (identity and culture) and at the same time organizational and managerial process. For the implementation of merger, it is necessary to coordinate strategies, structures and organizational systems in all functional aspects. Such cultural interdependence can be metaphorically represented in the form of the Möbius strip.

Figure 2: Identity strip in the process of merging two universities



Source: author's elaboration.

Figure 2 illustrates metaphorically the development of a new identity, which takes place at the individual, organizational and social level. Employees who identify themselves with the consolidated university and merger, interpret the ongoing cultural change. Organizing merger processes, the university, builds identity on the values associated with the merger, such as: entrepreneurship, competitiveness, innovation. The university identity is reflected in its mission and vision, organizational structures and organizational culture.

3. CASE STUDY – UNIVERSITÉ GRENOBLE ALPES (UGA)

The University of Grenoble was founded in the 14th century (1339) and survived, undergoing several transformations, until 1968. The introduction of a reform strengthening the autonomy of research and teaching centers has led to the division of the university into four specialized sister universities, following the former departmental division. The beginning of the 21st century brought "Shanghai shock" in France, which was associated with the weak positions of French universities in emerging and increasingly important international rankings. Positive consolidation experiences in higher education in many countries encouraged the universities of Grenoble to undertake the pioneering task of joining the university, which began with the creation of a strategic alliance. In 2002, a cooperation was established under the name Grenoble Universités, which covered all four public universities in Grenoble.

In the negotiation process, the University of Technology decided not to move towards the consolidation, while the other three institutions planned, communicated and effectively implemented the merger. The Grenoble Universités consortium became an umbrella that enabled the development of cooperation as well as consolidation. In 2009, as part of the implementation of the PRES (research and higher education centers) ministerial program, the merger of Grenoble universities was announced, which was supposed to start from January 1, 2016. A negotiation and integration team was established, in which representatives of all universities as well as central and local authorities and external stakeholders participated. Consolidation received strong financial and substantive support from the French Ministry of Higher Education. As a result of strategic analyses, studies and negotiations, the following were agreed: the strategy and stages of the merger, the structure of the consolidated university, the new name and the authorities of the consolidated university. A wide consultation process was also carried out, followed by communication, both among the employees as well as the students and other stakeholder groups. It is worth noting that the merger was preceded not only by a long period of close and formalized cooperation, but also by a six-year planning and preparation process for the implementation at the strategic and operational level. In 2015, the decree on the merger of three universities in Grenoble was signed and entered into force on January 1, 2016 (Decree No 2015-1132). By virtue of the decree, the Université Grenoble Alpes was created, which merged the three Grenoble universities into one. After the consolidation, 24 units in the forms faculties, schools and institutes have been separated in the organizational structure. As part of the matrix structure, 6 large disciplinary research units were also identified. The organizational structure of didactic and research units was made more flexible in the consolidation process by adding elements of matrix structures, but the changes were not radical. Deeper structural changes were introduced in university-wide service units, which cover various functional areas, such as finance and accounting, human resources, international cooperation, education and university life, research and innovation, information systems, logistics, cooperation with the environment and others (L'organigramme.., 2017). On the basis of the interviews it was found that the most important barriers to the merger included psychological, social, organizational and legal constraints. Since the beginning of the process of formalized cooperation, the concerns of the academic staff and administration arose that consolidation may worsen working conditions or lead to weakening of influence. The way to dispel these fears was communication, consultation and providing the employees with such working conditions that were not worse compared to those before the merger. The staff participated in the preparation of the merger for several years through systematic meetings within inter-university integration teams. The involvement of the employees in the merger was quite high due to the "Shanghai shock", the chances of using central programs and the sense of creating a valuable and to some extent pioneering organizational solution in France. A certain social barrier was the formation of groups that were concerned about the merger and the conservative attitude of trade unions. Long negotiations, which allowed for a compromise, were necessary. The first, positive effects of the consolidation create the perspective of achieving the strategic goals of the consolidation in the coming years. UGA implements mechanisms that dynamize scientific activity, which has led to the improvement of its position in national and international rankings in the last two years. It cost a lot of work for the employees to adapt to the new situation, which means that the results of scientific and didactic activities should improve year by year. The interviews indicate the improvement of consolidated university management through: more effective strategic management, real emphasis on international cooperation and cooperation with the environment, effective marketing communication and more advanced financial management and accounting.

4. CONCLUSION

The degree of university integration depends primarily on the type of the merger, as well as on the consolidation process itself, attitudes of stakeholders, merger effects and other factors (Frølich, 2016, pp. 231–248; Cai, 2016, pp. 7–24; Yang, 2015, pp. 123–144; Sutela, Cai, 2016, pp. 161–178). Unification mergers lead to a high degree of integration of the consolidated university, while federal mergers allow looser connections. The process of strategic management in a consolidated university should be subordinated to one strategy, but it is possible that there is an entity in the structure that creates its own internal strategies. The consolidation of private universities, based on the acquisition of universities or their founders, often leads to the formation of educational holdings or conglomerates, which are characterized by low autonomy, but high strategic independence. Low autonomy results from the dependence on the "mother university" or "founding company" and duplication of standardized organizational and management solutions, e.g. IT systems, division structures, quality systems etc. Strategic independence results from the differentiation of strategies in different markets on which they branches or faculties of the consolidated university operate. The conclusions from many studies of consolidation processes of universities in the world clearly indicate the primary role of cultural factors. Joining organizational cultures is a difficult process that only partially undergoes managerial control. The premise for the success of a cultural merger is to conduct an analysis that takes into account organizational identity, status and prestige. The social identity approach indicates that university employees who gain prestige on the university merger will find it easier to accept and will strive for the consolidation on partner terms. The university staff with greater prestige and stronger culture will probably be more skeptical about the consolidation and it will be more often perceived as the process of incorporation of a less prestigious university (Gleibs, Tauber, Viki, Giessner, 2013). The analysis of potential tensions and knowledge about the possibilities of solving them in communication and negotiation processes allows to manage the merger more effectively.

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EMPIRICAL ANALYSIS OF THE IMPACT OF 2008-2009 ECONOMIC CRISIS ON IMMIGRATION TENDENCIES: CASE OF OECD COUNTRIES

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ABSTRACT

As it happened with international trade and investment flows, global financial crisis also negatively influenced the international immigration tendencies. Immigrants are usually employed in sectors that are more sensitive to crises with more temporary and part-time jobs. These are mostly less skilled occupations where immigrants usually face discriminative treatment in hiring and layoffs. That is why, following the onset of global recession the migration to the economically advanced regions decreased immediately. During the first period of global economic crisis governments in different countries also implemented a set of policies to prevent the inflow of new migrants and force the existing immigrants to leave in order to provide more job opportunities for their citizens. This paper investigates how the changes of economic structure, policies and public opinion in most of the advanced countries have affected on global immigration since the global financial crisis. The work provides an empirical estimation of the impact of different crisis related factors on international migration since 2008-2009 for OECD countries.

Keywords: *financial crisis, globalization, international immigration*

1. INTRODUCTION

2008-2009 global financial crisis (GFC) is frequently compared with the Great Depression because of its catastrophic economic and social consequences. Financial crisis not only caused the fall of global production and rise of unemployment in many countries, but also downgraded different components of international economic integration. In 2009 world trade declined in real or volume terms by 12.2 per cent. In the OECD area volumes of exports and imports was down by respectively 15.7 and 15.3% in the first quarter of 2009. This had been the largest decline of the global trade turnover in the last four decades. The global financial crisis also ended the rise of international capital movement that had lasted for some decades. In 2008 global FDI flows dropped by 16 per cent and in 2009 it decreased further 40 per cent. Global financial crisis had also negative influence on international migration flows. This research conducts an empirical analysis of the aspects and extent of the negative effect of 2008-2009 crisis on immigration level in 27 OECD countries' case. Financial crisis caused the rise of unemployment almost in every OECD country (except Germany). Besides this, budget deficit increased in many countries, particularly in European countries, and in some countries caused to a more serious public debt crisis. Countries with problems in government finances cut down the social transfers and public expenditures which further deepened social impacts of crisis both on nationals and migrants. Worsening economic conditions and life standards sometimes triggered racist tendencies and made xenophobic groups more active. In some countries governments tightened immigration controls as a response to the economic calamity. This all resulted with decreased amount of immigrants in OECD countries during the crisis. The extent of the impact of the crisis on immigration level has been different in various OECD countries. During the early period of the crisis some researches were conducted to determine the level of this impact in OECD countries and give some predictions. This research contributes to the existing literature by providing more precise post factum analysis about this influence and also presents how the immigration level has recovered in 27 member countries since the crisis. This work also provides an empirically estimation which reflects the role of unemployment rate on

the rise and fall of immigration level during 2007-2016 in 27 OECD countries. The rest of the paper is organized as follows. In the next section the effect of past crises in 20th century on immigration level has been summarized and analyzed. Then a detailed analysis of the influence of 2008-2009 crisis on immigration level in OECD coutries has been presented. In 3rd section the empirical methodology anad data have been discussed to estimate the panel VAR model of the immigration level. Results of this estimated model is discussed in the last section.

2. HOW DID THE PAST CRISES AFFECT MIGRATION TENDENCIES: RETROSPECTIVE ANALYSIS

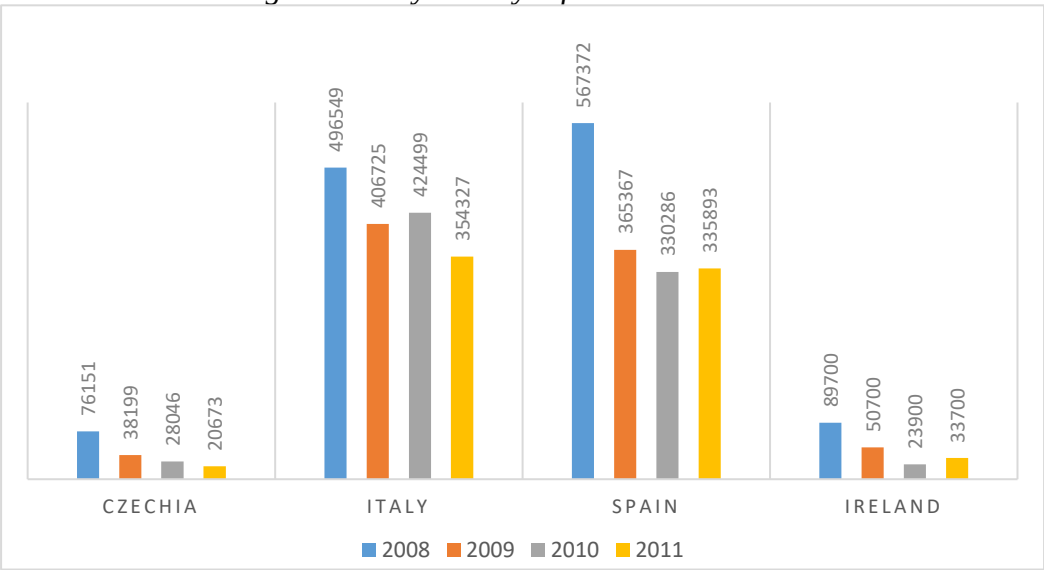
To understand the nature and duration of the impact of crises on the international flow of migrants it can be worthwhile to look through different historical cases. Castles (2009) states that the impact of recessions on international migration is complicated and sometimes can be unpredictable. Past experiences also show that the relationship between immigration and economic recession is not simple and easy to understand. Characteristics of the crises, behavior of different migrant communities and governments approaches during those crisis have been important on this relationship. But generally immigrants are vulnerable during economic recessions for various reason. In recent decades, economic cycles have been influential to determine the trends of migration flows in many OECD countries (OECD, 2000a). Economic downturns usually creates pressure on governments to adapt restrictive immigration policies (OECD, 2009). Immigrants are also more likely to concentrate in the industries that are more sensitive to economic crises. They are usually hired with more temporary contracts with less-skilled jobs, possibly face discriminative attitudes by the employers during recruitment and layoffs (OECD, 2009). Businesses that are owned by the immigrants have been more prone to encounter financial problems or even bankruptcy. The Great Depression caused the pace of international labor movement to decrease that had accelerated since 1918 (Koser, 2009). Castles (2009) also indicates the negative impact of the 1929-1932 crisis, but also claims restrictive policies that had been implemented during the WW1 were also partly responsible for the reduction of amount migrant during those years. During the Great Recession years (from 1928 to 1933) immigrants to Canada decreased from 166,783 to 14,382 (Koser, 2009). Koser (2009) indicates that 450,000 originally Mexican migrants had been forced to leave US from 1929 to 1937. As a result of the rising unemployment and xenophobia tens of thousands immigrants from Puerto Rico had to leave to their island as well. Significant amount of foreign nationals also faced deportation in France during those years, which had caused foreign population to decrease by half a million by 1936 (Koser, 2009). Castles (2009) states that the recession of 1970s in Europe also changed the environment for immigrants in Europe, as the "guest worker migration" was replaced by more permanent migration tendencies. Although some migrants from Spain and Portugal preferred to go back, the 1973 crisis in Europe did not cause the significant number of immigrants to flee their home countries (Sward, 2009). This was mainly because the origin countries for many migrants in Western Europe had also been influenced by the recessions and the welfare system was more efficient at destination countries than their countries of origin (Koser, 2009). The Oil Crisis of 1970s was also accompanied by the implementation of severe restrictions on the movement of labor, which continued to emerge during 1980s and 1990s. As a result of this illegal migration, human trafficking and migrant smuggling had developed. The impact of Asian financial crisis on migration had been relatively modest (Beets, Willekens, 2009). Koser (2009) also states that except for South Korea, Malaysia and Indonesia the Asian financial crisis did not significantly influence the overall level of migrants in the region countries. Russian financial crisis in 1998 caused the amount of migrants to decrease significantly. The departure of migrants had increased by 18 per cent after 4 months since the onset of financial crisis in Russia. Historical analysis reflects that in different periods and regions economic downturns had diverse influence on migration tendencies.

Normally an initial change in the level of international migration due to the business cycles has been likely to disappear during previous cases. Crises of 20th century had not caused long-lasting impacts on the movement of labor.

3. CHANGES IN IMMIGRATION SINCE THE GLOBAL FINANCIAL CRISIS

The range of the impact of 2008-2009 financial crisis on international migration in various OECD countries has been different. Amount of immigration decreased in 25 OECD member countries (from 27 analyzed countries) during 2008-2009. This reduction in immigration levels during the economic recession had been much more severe in countries as Czech Republic, Ireland, Iceland and Spain. And in each of these countries amount of arrived migrants has been well below the pre-crisis period in every subsequent years till 2016. For instance, number of arrived immigrants in Czech Republic decreased by 25 per cent in 2008, again 50 per cent in 2009, and in 2016 number of arrived migrants has been 66 per cent lower than in 2007. In 2008 number of arrived migrants decreased by 38 per cent in Spain and further decreased by 35 per cent in 2009. In 2016 number of arrived migrants was 61 per cent lower than it was in 2007 in Spain. Amount of migration inflow in 2016 has been 48 per cent lower in Italy and 55 per cent lower in Ireland compared with 2007. Slovenia and Slovakia are also OECD countries that accepted lower amount of migrants in 2016 than pre-crisis period. In Slovakia number of arrived migrants had decreased every year between 2008 and 2014.

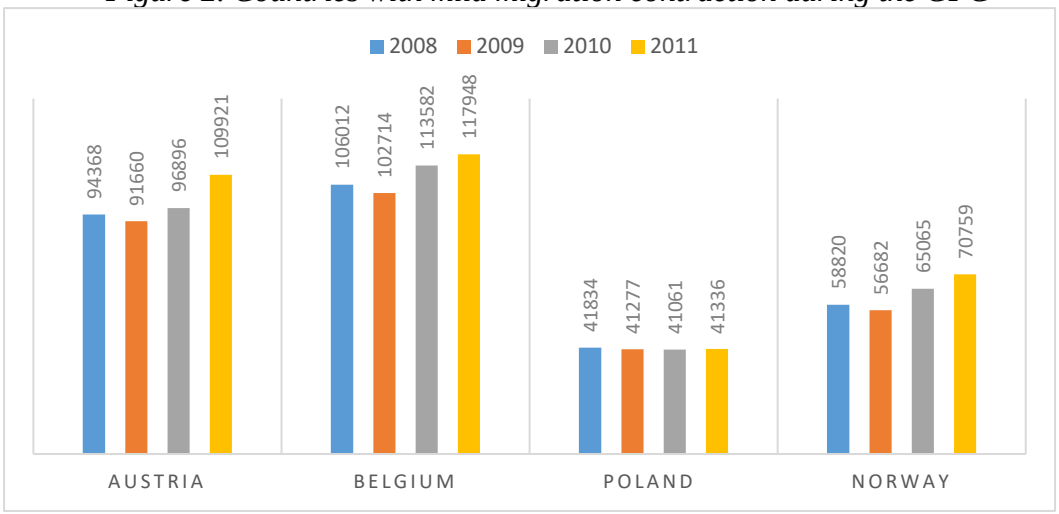
Figure 1: Very heavily influenced countries



Data: OECD

There were not observed any reduction of the number of arrived migrants in Australia, Canada, Estonia, Germany, Greece, Isreal, Mexico, Netherlands, Sweeden and USA during 2008-2009. But the amount of migration inflow has started to decrease in each of these countries in following years, except in Germany, Netherlands, Israel. In this countries amount of migration arrival mainly started to decrease in 2010 or 2011. Germany and Netherlands (except in 2012) are the two countries where migrant arrival increased annualy since the onset of global financial crisis until 2015. Britain, Austria, Belgium, Poland, Norway, France were the countries that the impact of crisis on immigration levels had been modest. Immigration level started to increase in 2010 and by 2016 all these countries received more immigrants than before the crisis. Although the number of arrived immigrants decreased in 2008 and 2009 in Chile, more immigrants were accepted in following years (except 2014) until 2016. But in Austria amount of migrant arrival has increased consistently from 2010 to 2015.

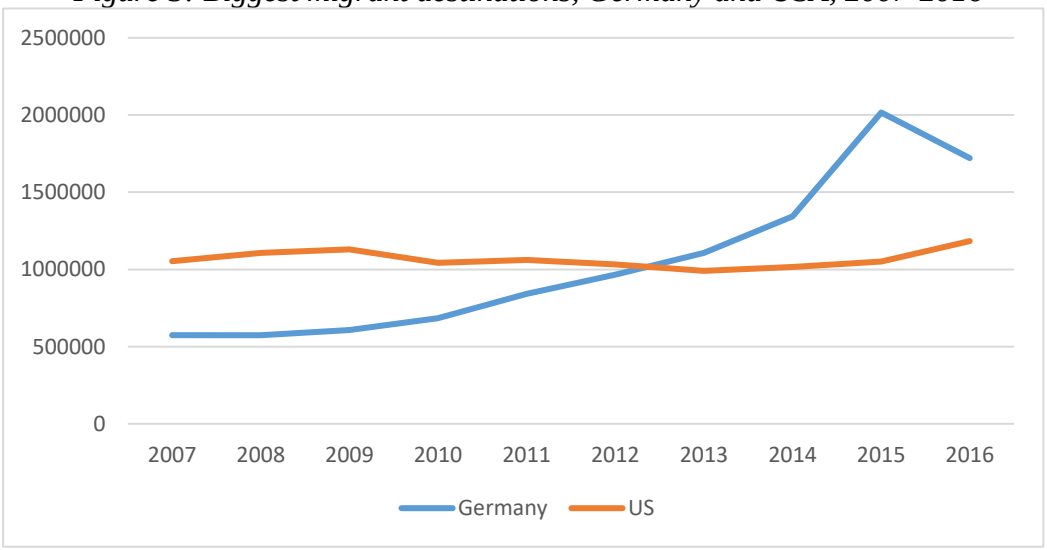
Figure 2. Countries with mild migration contraction during the GFC



Data: OECD

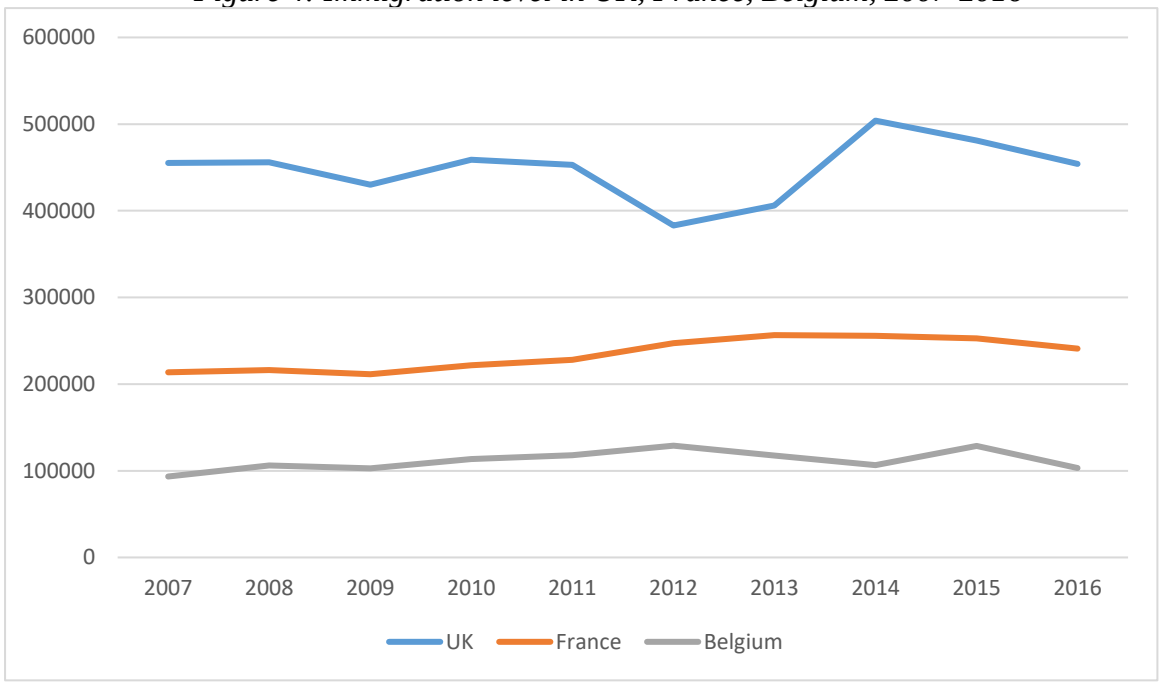
As it mentioned above, the effect of 2008-2009 global crisis on the amount of immigration has been observed with different duration and scale in OECD area. Negative effect of the recession on the immigration in countries as Czech Republic, Iceland, Ireland, Portugal, Spain, Italy, Slovakia, Slovenia has been much more durable than the countries as France, Denmark, Japan, South Korea, Switzerland. In the latter group of countries, including Luxembourg, New Zealand, Finland, migration arrivals recovered rapidly after the crisis and almost in every country surpassed the pre-crisis level. It should be noted that, although the yearly OECD average of immigration arrival fall during the crisis years, then it quickly started to increase and by 2014 average amount of migration arrival outnumbered the pre-crisis level. Perhaps year-by-year rise of migration in post-crisis period to Germany and Netherlands has contributed on quick recover of OECD average. Rapid development of immigration level since 2009 caused Germany to surpass US and become the biggest migrant receiving country. Mild impact of GFC on the general economy, continuous reduction of unemployment rate during 2009-2016, attitudes of political leadership and destabilization in Middle East can be considered among the factors that explain dramatic increase of immigration in Germany.

Figure 3: Biggest migrant destinations, Germany and USA, 2007-2016



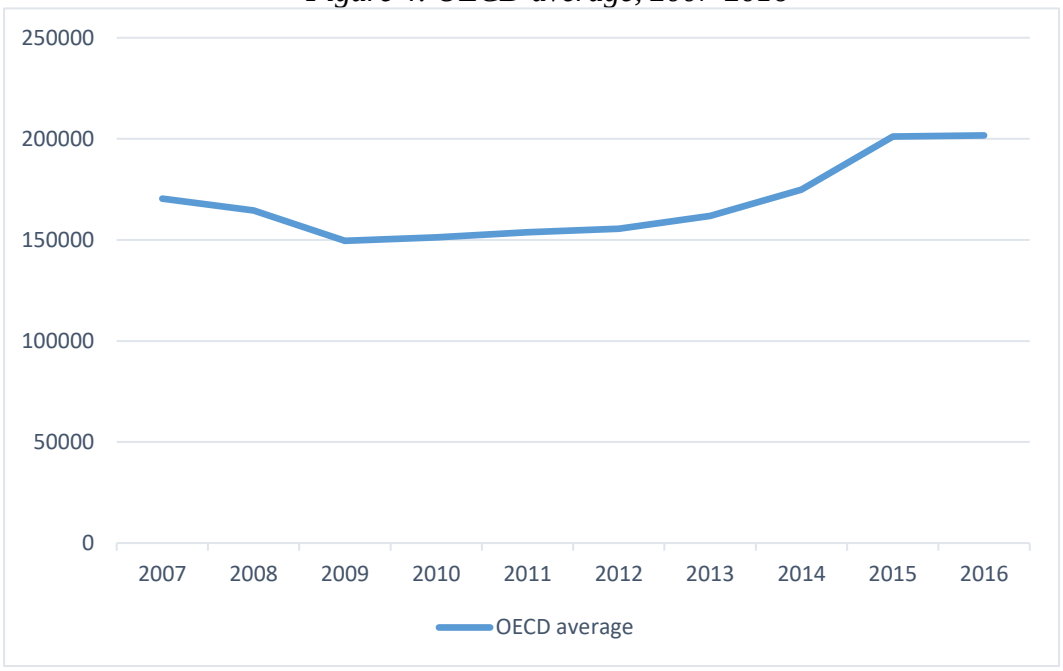
Data: OECD

Figure 4: Immigration level in UK, France, Belgium, 2007-2016



Data: OECD

Figure 4: OECD average, 2007-2016



Data: OECD

4. METHODOLOGY AND DATA

4.1. Econometric Methodology

In this work panel vector autoregressive model (PVAR) is built to estimate the factors that have affected immigration during 2007-2016. This technique combines the traditional VAR approach, which treats all the variables in the system as endogenous, with the panel-data approach, which allows for unobserved individual heterogeneity (Love, Zicchino, 2006). Generally a PVAR model for country *i* at time *t* with *i* = 1, ..., N and t = 1, ..., T is given by

$$y_{it} = A_{i1}Y_{t-1} + A_{i2}Y_{t-2} + \ldots + A_{iP}\,Y_{t-P} + u_{it},\ (1)$$

where $Y_{t-1} = (y'_{1t-1}, \ldots, y'_{N\,t-1})$ ' and y_{it} denotes a vector of dimension [G × 1]. The number of variables is defined as G. All A_{ip} have dimension [G × NG] for lag p = 1, ..., P. The index *i* denotes that the matrices are country specific for country *i*. The uit are uncorrelated over time and normally distributed with mean zero and covariance matrix Σ_{ii}. The covariance matrix between errors of different countries is defined as $E(u_{it}u'_{jt}) = \Sigma_{ij}\ \forall\ i \neq j$ with dimension *[G × G]*. The PVAR model for all N countries can then be written as

$$Y_t = A_1Y_{t-1} + A_2Y_{t-2} + \ldots + A_P\,Y_{t-P} + U_t$$

Canova and Ciccarelli (2013) summarize three specific features of panel VAR models: dynamic interdependencies, static interdependencies and cross sectional heterogeneity. Dynamic interdependencies means that lags of all endogenous variables of all units enter the model for unit *i*. Static interdependencies means that u_{it} are generally correlated across *i*. According to "cross sectional heterogeneity" feature, the intercept, the slope and the variance of the shocks u_{1it} may be unit specific.

4.2. Data

In this work, impact of unemployment and crisis dummy variable on immigration during 2007-2016 in 27 OECD member countries is estimated by using PVAR analysis. Number of immigration, unemployment rate and dummy variable are included to the regression model. Data for amount of immigration and unemployment rate during 2007-2016 in 27 OECD member countries has been obtained from OECD database. As the appropriate data is missing for rest of the OECD countries they have been excluded from the analysis.

5. RESULTS AND DISCUSSION

Unit root tests for data sets of immigration and unemployment indicate that both of the variables are non-stationary, but their first differences become stationary. As both variables are integrated with the same order Johansen Fisher Panel Cointegration test has been conducted to examine long run cointegration between them. As a result of the Johansen Fisher test, it has been determined that there is not cointegration between immigration and unemployment (Table 1).

Table 1: Johansen Fisher Panel Cointegration test

Hypothesized No. of CE(s)	**Fisher stat. (from trace test)**	**Prob.**	**Fisher stat. (max-eigen test)**	**Prob.**
None	**1198.**	**0.0000**	**628.0**	**0.0000**
At most 1	**136.6**	**0.0000**	**136.6**	**0.0000**

Taking into account the outcome of cointegration test, VAR model is considered to be the more appropriate model to test the impact of unemployment on immigration level in post crisis period. According to the econometric literature, if cointegration between the variables was observed, vector error correction model (VECM) would be considered the appropriated model. Dummy crisis variable has also been included to the VAR estimation as a exogenous variable, to see the statistical impact of other crisis related factors besides increased unemployment. According to outcome of the lag order selection criterias (Table 2) VAR model is estimated with 2 lags.

Table 2: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	**-3631.964**	**NA**	**1.43e+12**	**33.66633**	**33.72884**	**33.69159**
1	**-2986.433**	**1267.155**	**3.77e+09**	**27.72623**	**27.85124**	**27.77673**
2	**-2935.103**	**99.80727***	**2.43e+09***	**27.28799***	**27.47551***	**27.36375***

**indicates lag order selected by the criterion*

Results of the estimated equation of VAR model indicate that unemployment rate with one lag has statistically significant influence on amount of immigration with 1 per cent significance level during 2007-2016. According the estimation output, 1 percentage point increase of past year's unemployment rate has caused yearly amount of arrived migrants to decrease by 9548 during 2007-2016. The coefficient of crisis dummy variable is also statistically significant with 5 per cent significance level. The regression output presents that the crisis related factors (other than increased unemployment) has caused the number of yearly immigration to decrease by 29847 during 2008-2009. Results also show that one unit of increase of past year's immigration has had statistically significant effect on the following year's immigration level.

Equation: Immigration=C(1)*Imigration(-1) + C(2)*Immigration(-2) + C(3)*Unemployment(-1) + C(4)*Unemployment(-2) + C(5) + C(6)*Crisis

Table 3: VAR estimation output

	Coefficient	t-statistic	Prob.
C(1)	**1.036707**	**14.34682**	**0.0000**
C(2)	**-0.000660**	**-0.008427**	**0.9933**
C(3)	**-9548.930**	**-2.704959**	**0.0071**
C(4)	**8373.676**	**2.371402**	**0.0182**
C(5)	**13761.71**	**1.338190**	**0.1816**
C(6)	**-29847.31**	**-2.356345**	**0.0189**
R-squared	**0.961342**	**Adj.R-squared**	**0.960421**

6. CONCLUSION

In many OECD countries economic cycles have affected the amount of migration flows recent decades. Immigrants are vulnerable during economic recessions for various reasons. Economic downturns usually creates pressure on governments to adapt restrictive immigration policies (OECD, 2009). Immigrants are also more likely to concentrate in the industries that are more sensitive to economic crises. They are usually hired with temporary contracts and frequently face discrimination during hiring and layoffs by the employers (OECD, 2009). Businesses of immigrants are also more likely to encounter financial problems during crises. The influence of global financial crisis on international migration in OECD countries has been different. Amount of annual migrant arrival decreased in 25 OECD member countries during 2008-2009. The reduction in immigration levels during the economic recession had been much more severe in countries as Czech Republic, Ireland, Iceland and Spain. In Australia, Canada, Estonia, Germany, Greece, Isreal, Mexico, Netherlands, Sweeden and USA level of immigration did not fall during 2008-2009, but it started to decrease during 2010-2011. Germany and Netherlands (except in 2012) have been the two countries where immigration level increased annually since the onset of global financial crisis until 2015. The negative effect of crisis on immigration level had been modest in Britain, Austria, Belgium, Poland, Norway and France. Migrant arrival in these countries started to increase in 2010 and by 2016 all these countries received more immigrants than pre-crisis period. Although the yearly OECD average of immigration fall during the crisis years, then it quickly started to increase and by 2014 average amount of migration arrival outnumbered the pre-crisis level.

Results of the estimated immigration model indicate that 1 percentage increase of past year's unemployment rate has caused yearly amount of arrived migrants to decrease by 9548 during 2007-2016. The analysis concludes that one reason of the immigration decrease in certain OECD countries during the financial crisis has been particularly the increase of unemployment rate. Countries with severe unemployment increase during 2008-2009 experienced a sharp drop of immigration level. The negative coefficient of crisis dummy variable is also statistically significant with 5 per cent significance level. This outcome indicates that the rise of unemployment rate has not been the only factor during the financial crisis that caused immigration level to decrease. The regression output presents that the other crisis induced factors (e.g. increased xenophobia and rise of ultra-right politics, decreased social security spending and other austerity measures, relatively mild impact of crisis in origin countries than destinations) can explain decrease of yearly immigration by 29847 during 2008-2009.

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ESTIMATION OF THE INFLUENCE OF TRANSPORTATIONS IN TRANSPORT SECTOR TO ECOLOGICAL POLLUTIONS IN AZERBAIJAN

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ABSTRACT

The main purpose of this study is to analyze the role of transportations in arising the ecological problems and its importance. The analysis of international researches has been conducted in the similar fields show that it is possible to encounter with the correlation between the increase in the volume of transportation in transport sector and some indicators characterizing the pollution of environment. As it is known transport sector has rapidly developed for the last 10 years. So, the volume of transportations of the goods have increased to 226.4 million tons in 2017. But this development has also been impacting the ecological problem and giving the negative "contribution" to it. It is known that the transportations have significantly importance in Gross Domestic Product of Azerbaijan. In this study it is considered to investigate the relationships between the transportations and ecological pollutions through econometric modelling. Nevertheless, there are a lot of analyses and research in these fields, just definitely the estimation of the influence of transportations in the transport sector to the ecological pollutions have been investigated less in Azerbaijan. From this point of view, the subject of research is considered the problem of to-day and the matter of great urgency.

Keywords: *Ecological pollution, Goods transportation, Passenger transportation, Transport sector*

1. INTRODUCTION

The transport sector is particularly important in the development of society, as well as in the expansion of the state's regional and global relationships and the improvement of people's living conditions. The development of other sectors of the economy has also been achieved through revenues from the oil sector of the Republic of Azerbaijan. Since the end of the twentieth century, the progress in the transport sector has influenced indirectly to the other areas of the economy. According to the Transport Law of the Republic of Azerbaijan, transport terminology includes transportation of state-registered goods and people in the Republic of Azerbaijan. Railroad, automobile, sea, inland water, air, urban and suburban electricity, subway (underground), as well as the main pipelines in the territory of the Republic of Azerbaijan are regarded as types of transport (http://www.e-qanun.az/alpidata/framework/data/15/c_f_15171.htm). According to the State Statistical Committee, cargo transportation is divided into transport and non-transport sectors. Based on the statistical figures, 222 461 thousand tons and 22 941 thousand tons of cargo were carried in the transport amd non-transport sectors respectively in 2016. In the transport sector, 15 479 thousand tons of goods were transported by rail, 5 807 thousand by sea, 160 thousand by air transport, 59 556 thousand tons by pipelineand 141 459 thousand tons were carried by automobile. In the non-transport sector, 15 020 thousand tons of cargo were transported by automobile, 4 129 thousand tons through oil pipelines, 3 792 thousand tons were delivered via railway transport (Statistical Yearbook of

Azerbaijan 2017, pp.599; http://www.stat.gov.az//). Over the last few years, there has been a tendency for freight and passenger transportation to increase. Toxic gases emitted during transportation in the transport industry lead to atmospheric pollution, water pollution, and other complications. It in its turn leads to environmental pollution. The pollution of the environment is one of the global issues of humanity. This is a problem that is directly linked to the population's future demographic and economic growth. Naturally, the formation of healthy future generations is an important issue for everyone to consider. (Dr. Jean-Paul Rodrigue) note that the growth of personal and freight mobility in recent decades have expanded the role of transportation as a source of emission of pollutants and their multiple impacts on the environment. (J. Mikayilov, V. Shukurov and S. Yusifov, 2017) investigated the impacts of the social and economic factors on atmospheric pollutants from road transports in Azerbaijan during 1990-2014 years. Azerbaijan joined to the Sustainable Development Summit of United Nation for 2016-2030 held in September 25-27, 2015. In 2012 "Azerbaijan 2020: Look into the future" concept of development was approved (President.az, http://www.president.az /files/future_en.pdf). Strategy Road Map was written on the perspectives of national economy of Azerbaijan Republic approved by President of the Republic of Azerbaijan on based of Decree dated December 6, 2016. In accordance with the Sustainable Development Purposes of UNO, "Azerbaijan will be faithful to the commitments related with fulfillment of urgent, courageous and transformative measures making the world to be sustainable and stronger" (President.az, http://president.az/articles/21993). Note once more that protection of natural environment and solution of ecological problems assume a great importance for attaining the Sustainable Development Purposes. It means that protection of natural environment and solution of ecological problems have become an actual problem at a global and national levels. At present the positions of the countries are being assessed in protection of environment. That is to say depending on the results of noted measurement it may be taken a certain measure for the countries contributing the planet`s ecological equilibrium. By the way, in the report of 2018 on the (EPİ) environmental performance index characterizing the ecological equilibrium Azerbaijan took the 59-th place (https://epi.envirocenter.yale.edu/2018/report/category/hlt) After investigating the impact of transportation on the environmental pollution in the transport sector, the main factors determining key environmental indicators were emissions of pollutants from automobiles to air, carbon dioxide, water pollution index, growth index in atmosphere pollution. Similarly, passenger and cargo transportation in the transport and non-transport sector, as well as the volume of Gross Domestic Product were used as an explanatory variables and relevant econometric assessments were made. It should be noted that, while studying scientific literature, what I realized is that no research work related to the assessment of the impact of freight and passenger transport on environmental pollution in the transport sector has been conducted. Therefore, I hope that, the proposed article will be the first research paper within scientific sources in Azerbaijan.

2. RESEARCH DATABASE AND PROCESSING

Using the data from the State Statistical Committee of the Republic of Azerbaijan, the relationships between the indicators will be evaluated with the assistance of the econometric modeling method based on timeline data of the indicators given in Table 1. Using the final indicators of 1997-2017 for observation, the following Table 1 has been drawn and econometric models have been set up.

Table following on the next page

Table 1: Statistical basis of models

Year	CTTS (1000 tons)	GDP (mln. AZN)	CO_2 (1000 tons)	PT (1000 unit)	EDPEFAT (1000 tons)
1	**2**	**3**	**4**	**5**	**6**
1997	46348	3158.30		780810	459.4
1998	55029	3440.60		85070	313.4
1999	67735	3775.10		854100	342.4
2000	80180	4718.10	148.2	871484	392.7
2001	92648	5315.60	265.2	894520	401.8
2002	98445	6062.50	269.6	893225	403.3
2003	110001	7146.50	293.5	920988	412
2004	117314	8530.20	310.2	954079	435.5
2005	128328	12522.50	353.7	1000278	496.4
2006	145596	18746.20	378.3	1063347	530.9
2007	167533	28360.50	415.8	1148328	584
2008	183093	40137.20	457.4	1242161	642.4
2009	190372	35601.50	496.3	1328073	697.1
2010	196452	42465.00	528.3	1387308	742
2011	203586	52082.00	554.7	1491905	779.1
2012	210862	54743.70	604.7	1617339	849.3
2013	217926	58182.00	655.6	1746106	922.4
2014	221991	58977.80	700.3	1828324	965.9
2015	222373	54380.0	708.1	1891905	977.7
2016	222461	60425.2	678.9	1929685	981.9
2017	226419	70135.1	695.6	1973440	976.4

Source: (http://www.stat.gov.az/source/transport/az/002_1-3.xls, http://www.stat.gov.az/source/system_nat_accounts/az/002-6.xls, http://www.stat.gov.az/source/transport/az/004_1-2.xls, https://www.stat.gov.az/source/environment/az/010_10.xls (Retrieved Date 06.01.2019)) with author calculations.

The descriptions of abbreviations used in table 1 have been given in the following appendix. Table shows that ingredient of removal of pollutants from vehicle transport to atmospheric air is increased equally with the increase of passenger transportation and cargo transportation in the transport sector.

3. SPECIFICATION AND IMPLEMENTATION OF ECONOMETRIC MODELS

3.1. Evaluation of dependence of pollutants emitted from automobile transport on GDP and passenger transportation

GDP and passenger transportation are contributing factors to the increase of pollutants from automobile transport to air. Quantitative characteristics of these factors on the extent to which the impact of ingredients on the volume of pollutants emitted from automobile transport to atmospheric air were assessed based on the data given in Table 1. For the purpose of evaluation of dependence of pollutants emitted from automobile transport on GDP and passenger transportation according to factors (ingredients), the specificity of the regression equation of the logarithmic-linear model has been considered as follows. (Gujarati, 1995, Asteriou, 2016, Hasanli, 2008). It should be noted that the assessment was carried out through EViews 9.0 software package:

$$LOG(EDPEFAT) = C(1) + C(2)*LOG(GDP) + C(3)*LOG(PT) \quad (1)$$

Here, LOG(EDPEFAT) represents the natural logarithm of pollutants emitted from automobile transport to atmospheric air, while LOG(GDP) reflects the natural logarithm of the volume of gross domestic product, and LOG(PT) represents natural logarithm of the passenger transportation. C(1), C(2) and C(3) are the variables and characterize the impact of the appropriate explanatory variables on the EDPEFAT, the resultant (detected) indicator. More precisely, C(1) is a constant boundary and C(2) and C(3) show the semi-elasticity coefficients. Let's note that the coefficients of the factor (or explanatory variables) in logarithmic-linear regression equations indicate the elasticity ratios of the result (or description) of that factor (Eliseeva, I.I. 2014). The results obtained from the evaluation of model (1) are given in Table 2. The extent to which these results are reflected, how reliable these figures are, and other issues should be checked with the implementation of Student T distribution, normal distribution, residual stabilization, heteroskedasticity and other tests. The following results were obtained from the computer implementation through the application software package, based on Table 1 of the Regression Equation (1) EViews 9.0:

Table 2: Parameters on Econometric evaluation, their reliability tests. The main statistical characteristics of the econometric model of GDP and PT variables on EDPEFAT

Dependent Variable: LOG(EDPEFAT)				
Method: Least Squares				
Date: 01/05/19 Time: 23:43				
Sample (adjusted): 2000 2017				
Included observations: 18 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.373619	0.592493	-10.75730	0.0000
LOG(GDP)	0.109188	0.016257	6.716537	0.0000
LOG(PT)	0.833948	0.052889	15.76775	0.0000
R-squared	0.996462	Mean dependent var		6.461150
Adjusted R-squared	0.995990	S.D. dependent var		0.352360
S.E. of regression	0.022313	Akaike info criterion		-4.616261
Sum squared resid	0.007468	Schwarz criterion		-4.467866
Log likelihood	44.54635	Hannan-Quinn criter.		-4.595799
F-statistic	2112.168	Durbin-Watson stat		1.288389
Prob(F-statistic)	0.000000			

The evaluation of the main statistical characteristics of the econometric model (1) in Table 2 and the corresponding tests show that the model is adequate. Here, it turns out that the estimated parameters are unbiased and effective.

3.2. Evaluation of dependence of carbon dioxide (CO_2) on GDP and passenger transportation

Passenger and cargo transportation in the transport sector are the contributing factors to the amount of carbon dioxide in the air. The quantitative characteristic of the effects of these factors on the volume of carbon dioxide is estimated econometrically based on the data in Table 1. Specificity of the regression equation of the econometric logarithmic-line model to evaluate the dependence of carbon dioxide (CO_2) on passenger and freight transport in the transport sector is as follows (Gujarati, 1995, Asteriou, 2016, Hasanli, 2008).

LOG(CO2)=C(1)+C(2)*LOG(PT)+C(3)*LOG(CTTS)+[AR(3)=C(4),AR(6)=C(5),UNCOND] (2)

Here, the LOG (CO2) variable represents the natural logarithm of carbon, LOG(PT) reflects natural logarithm of passenger transportation, while the LOG(CTTS) represents natural logarithm of freight transportation. C(1), C(2), C(3) are parameters and describe the effect of the corresponding explanatory variables on the CO_2, which is the resultant (explanatory) indicator. Results of model (2) based on information in Table 1 in EViews 9.0 are the following:

Table 3: Parameters on Econometric evaluation, their reliability tests. The main statistical characteristics of the econometric model of PT and CTTS variables on CO_2

Dependent Variable: LOG(CO_2)				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Date: 01/07/19 Time: 21:18				
Sample: 2001 2017				
Included observations: 17				
Convergence achieved after 17 iterations				
Coefficient covariance computed using outer product of gradients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.599080	0.140837	-68.15730	0.0000
LOG(PT)	0.638146	0.048669	13.11193	0.0000
LOG(CTTS)	0.561141	0.047425	11.83222	0.0000
AR(3)	-0.733700	0.208575	-3.517687	0.0048
AR(6)	-0.893703	0.088861	-10.05734	0.0000
SIGMASQ	9.72E-05	6.86E-05	1.417363	0.1841
R-squared	0.999177	Mean dependent var		6.142430
Adjusted R-squared	0.998803	S.D. dependent var		0.354163
S.E. of regression	0.012254	Akaike info criterion		-5.100849
Sum squared resid	0.001652	Schwarz criterion		-4.806774
Log likelihood	49.35721	Hannan-Quinn criter.		-5.071617
F-statistic	2670.664	Durbin-Watson stat		2.099053
Prob(F-statistic)	0.000000			
Inverted AR Roots	.78+.60i	.78-.60i	.13-.97i	.13+.97i
	-.91-.37i	-.91+.37i		

Note that, in order to get adequacy in model (2), AR(3) and AR(6) (3th and 6th order autoregression) factors are included to model and those ones caused to the elimination of heteroscedasticity (residual dispersion variation) and created homoscedasticity (White Heteroskedasticity Test). One of the important conditions in econometric modeling is stationarity of Residuals. The main statistical characteristics of econometric Model (2) shown in Table 2 indicates that the model is adequate. Therefore, estimated parameters are unbiasedness and effective.

4. RESULTS OF THE ECONOMETRIC MODELS

LOG(EDPEFAT)=-6.37361855+0.109188120237*LOG(GDP)+0.83394811823*LOG(PT)(3)

The result of the Model (3) shows that when Gross Domestic Product (GDP) and Passenger Transportation (PT) increase by 1%, according to factors (ingredients) the rate of emissions of pollutants from vehicle transport into the atmosphere (EDPEFAT) rise by 0.109% and 0.834%, respectively.

LOG(CO2)= -9.59907987844 + 0.638145874222*LOG(PT) + 0.561141352797*LOG(CTTS) + [AR(3) = -0.733700147012,AR(6) = -0.893702883647,UNCOND] (4)

The result of model 4 shows that 1% rise in passenger transport (PT) and freight transport (CTTS) results in the increase of the amount of carbon oxide by 0.638% and 0.561%, respectively.

5. CONCLUSION

The estimated econometric models show that the elasticity ratio of the amount of pollutants emitted from vehicles into the atmospheric air compared to that of Gross Domestic Product's volume is greater than the elasticity ratio compared to passenger transport. This means that the increase in the volume of production is more likely to affect air pollution than in the transport of passengers. On the other hand, the coefficient of elasticity of carbon dioxide compared to that of passenger transportation's volume is greater than the elasticity ratio compared to freight transportation. Therefore, the effect of passenger transportation is higher on the increase of the amount of carbon dioxide released into atmosphere than that of freight transportation.

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APPENDIX

The definition of Variables:

CTTS: Cargo transportation in transport sector, ths. tons
GDP: GDP, current mln AZN[1]
$C0_2$: Total of carbon oxide, ths. tons
PT: Passenger transport, per ths. person
EDPEFAT: According to factors (ingredients), emissions of pollutants from automobile transport to atmosphere, ths ton.

[1]1USD =1.70 AZN

EVALUATION OF TANAP AND TAP PROJECTS EFFICIENCY: "DIVERSIFICATION OF THE GAS SUPPLY FOR THE EUROPEAN UNION´S ENERGY SECURITY – CASPIAN AND CENTRAL ASIAN GAS"

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ABSTRACT

In contemporary period, the EU's current concern is to reduce dependency on Russian gas that its whole gas supply and over the region increases political and economic threats for member countries. The EU's concern about Russia's dominance in its gas market make consider non-Russian gas projects through Turkey - the closest neighbor after Russia. The EU sees Turkey as a crucial partner to diversify routes for the EU's energy security. From this perspective, the purpose of this paper is to define possibility and geopolitical reasons behind changing EU's shifting priorities from Russian to Turkish dependence for gas supply.
Keywords: *Energy security, EU, TANAP, TAP, Turkey, Russia*

1. INTRODUCTION

Energy security is the key issue in contemporary period for the highly industrialized countries. The risk of energy markets depends mainly on cheap, reliable and consistent energy supplies. Within union, a situation becomes even more difficult because of many players having different interests on energy issues that complicate decision-making process to sign a common agreement. As a union of many developed countries, the European Union (EU) has high dependence on external energy supply, especially gas supply. However, the EU also is well aware that a new supply will not be as cheap as Russian gas to diversify its gas supply by signing several agreements with different countries. On the other hand, EU tries to maintain its diversification of the energy sources by initiating several projects including South Stream, Nord Stream 2, TANAP & TAP. From this perspective, the paper will define the economic efficiency, financial-supply risk and chances on the EU´s risk diversification strategy on the gas supply.

2. EU'S INCREASING DEMAND ON GAS

The EU's main source of the energy supply is provided by Russia. However, this is not same and common for all member states of the EU. According to the Gazprom's statistics after Ukraine crisis in comparison with 2013, there was 15 billion cubic meter reduction in the volumes of exported natural gas from Russia to Europe in 2014 (in 2013-162 bcm, in 2014-147.2 bcm). This is approximately 10 percent reduction of the gas supply to Europe. This combination means, that the small and medium sized entrepreneurs, also in some cases the big companies will suffer on the increasing prices of gas in EU´s energy market by any other crisis on transfer country like Ukraine. On the other hand, the increasing energy costs will increase also the product costs and electricity costs in each part of the economy and especially in

households (Mammadova, 2015, pp. 34-39). The German Federal Institute for Geosciences and Natural Resources (Die Bundesanstallt für Geowissenschaften und Rohstoffe – BGR) has in one of own research published about the countries with largest natural gas resources on the world. Figure 1 shows the capacity of the countries with gas resources billion cubic meters. In Top 8 of the graphic, Russia is on the first place. Turkmenistan and Iran are the nearest alternative gas resources to EU for each country with amount of 15.000 bcm and 10.000 bcm gas capacity. USA and Brazil are also the future partners of EU for liquid natural gas. However, current conditions the transport cost for LNG from the USA and Brazil is high in long term projects (BGR Energiestudie, 2017, p.130).

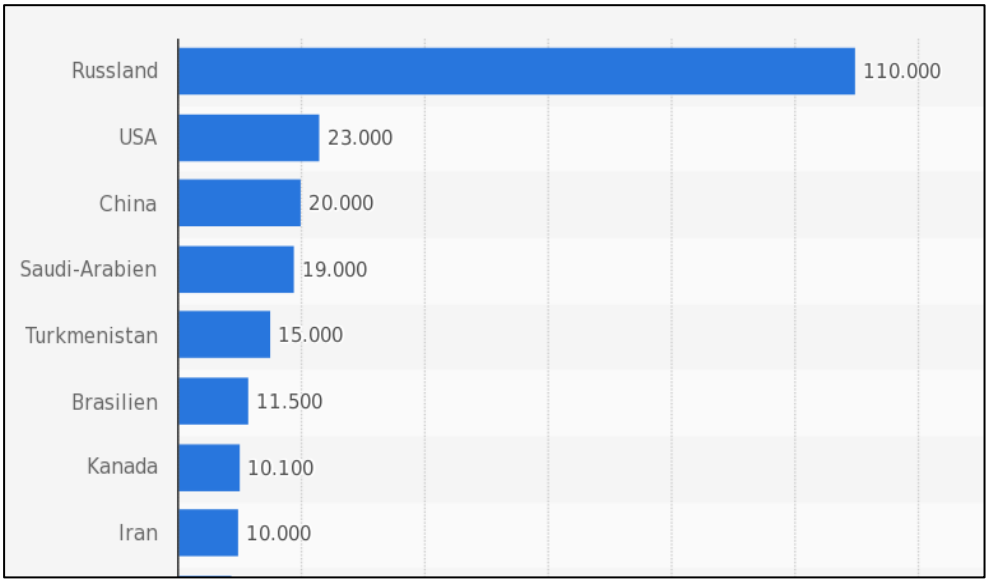


Figure 6: The Countries with Largest Natural gas Resources. (Statista.de)

The condition of the dependence of gas in EU lets categorize the countries into three type of the Member States for supply-risk:

1. First, some member states do not import Russian gas through Ukraine. They have either their own resources, or they import gas from other gas sources such as Netherlands, Norway.
2. Second group of countries are more secure in terms of Russian supply through Ukraine. This security mainly is related to different arguments, including economic alliance with neighbor countries of EU, having quite diversified energy supply-risk system in case of unexpected occasion.
3. Third group of countries are heavily and/or completely dependent on Russian gas supply through Ukraine. These countries do not have enough storage capacity as well. Therefore, they might be called as "financial risk regions of any gas supply reduction" in terms of financial risks on the market (Chyong, 2015).

According to the BP´s "Statistical Review of the World Energy 2018" from 2010 till 2016 European gas consumption changes roughly between 470-520 bcm in year. The maximal consumption of gas in EU from 1980 to 2016 was in 2010 (BP, 2018, p.29).

Figure following on the next page

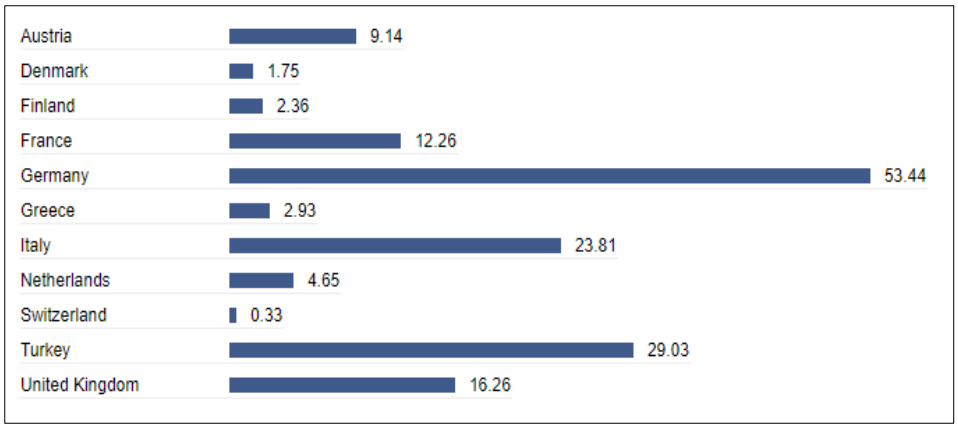


Figure 7: Gas Consumption of Western European countries (Gazprom Annual Report 2017)

Gazprom Annual Report in 2017, company supplied a total of 194.4 billion cubic meters of gas to European Union, 192.2 bcm being supplied under Gazprom export contracts. Western European countries accounted for approximately 81% of the company's exports from Russia through Ukraine as transit country for supply, while Central European states took 19%. (Gas supplies Europe, 2017). Figure 2 and Figure 3 indicate each country's consumption of Russian gas in 2017 per percentage.

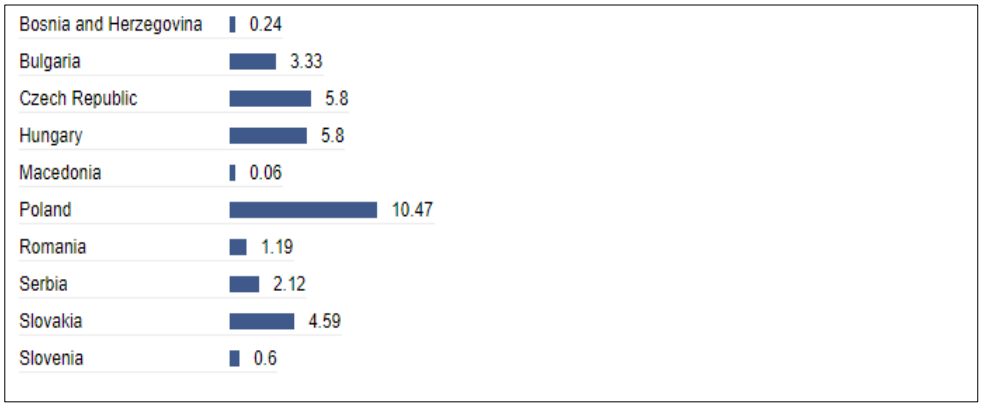


Figure 8: Gas consumption of Eastern & Central European countries (Gazprom Annual report 2017)

Zeyno Baran, the director of the Center for Eurasian Policy at the Hudson Institute in Washington, considers that, Russia, the European Union's main oil and gas provider, has taken advantage on the EU´s energy market and the increasing demand of the European countries on gas increases Russian supplies. Moscow aims to have a good relationship with member states. The diversification of the energy supplies to European countries is the main point for energy security in EU´s gas supply. EU wants to construct transport routes for Caspian and Central Asian oil and gas to minimize the risk of supply according to diversification (Baran, 2007, pp. 131-144). According to the IEA's 2014 report, Russian gas supply will be the largest portion of the EU market for at least a few decades from now on. Figure 4 precisely shows that Russia was the largest supplier of natural gas to the EU in 2016 and 2017. "The EU is set to be dependent on Russian gas for some time and that's the reality" says, IEA executive director Maria van der Hoeven (Energy Policies of IEA Countries, 2014). One of the projects proposed by the EU for the diversification of the gas supply was Nabucco gas project. The Nabucco gas pipeline is one of the central infrastructure projects for the diversification of Europe's natural gas supplies (Davidovic, 2009).

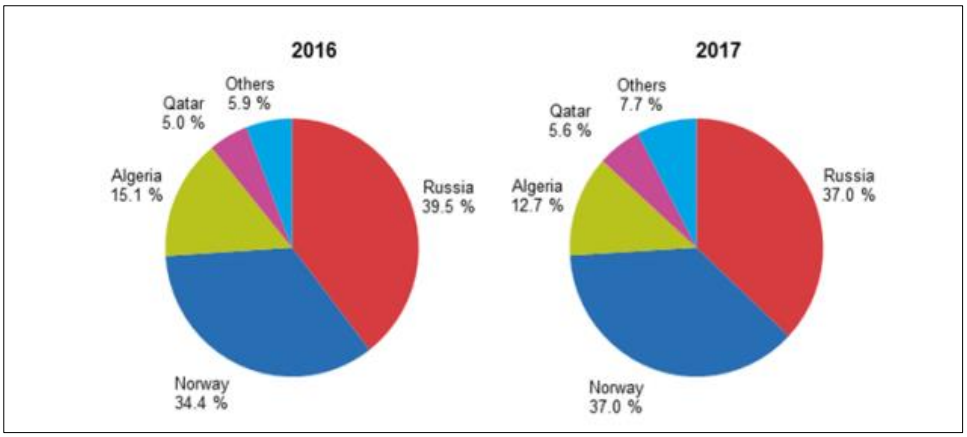


Figure 4: EU imports of natural gas 2016 – 2017 (Eurostat 2017)

In terms of the EU and Caspian Region relations, energy issues are stable and the countries on the Caspian Region, especially Azerbaijan seems a key partner for future cooperation. Energy is one of the key interest in the Economic relations of the both Regions. Also, Turkey seems as the future partner to diversify of the routes for the EU's energy security due to TANAP project. Given its strategic location as transit country in the region, Turkey is one of the future partners for Europe's risk diversifications strategy for energy security (EU and Turkey strengthen energy ties, 2016). To define financial and geopolitical reasons behind the EU's risk diversification to Caspian and Central Asian Region for gas supply, the following chapter will discuss 3 hypotheses:

1. Due to the Projects TANAP and TAP, the Caspian and Central Asian Countries has been more reliable partner, because of its intention of the countries on the region to have a good relation to the EU and the lower costs than the the other big projects like Nabucco.
2. Turkey can play "bridge" role to transport Central Asian gas through direct pipelines Caspian Sea-Azerbaijan-Turkey-Italy for potential projects like TAP. Transit Country will earn by transport of the gas.
3. Azerbaijan, Shah Deniz II, plays one of the main roles on the projects TANAP & TAP. Because, Azerbaijan starts the Project and is the first supplier to EU on the Project. It is expected, that Iran and Turkmenistan will also join to the Project after some period of time.

On the figure 5, according to the statistical information of the Statista.de it Is easy to determine the cost and capacity of the pipeline projects for the gas supply to EU. The capacity of the South Stream is 63 bcm per year, but the costs 20 billion euros. TANAP & TAP projects have together the gas capacity in amount of 26 bcm, but the cost of the both projects is in amount of 6,5 billion euros. Nabucco has a capacity of 31 bcm per year but the cost basis of the project is 7,9 billion of euros. Reality is that, the TANAP and TAP project have the chances to increase the supply to EU on 90 bcm per year. On these conditions, the most attractive project for future gas supply-risk diversification for EU´s energy security are the TANAP and TAP projects.

Pipeline and Consortium	**Capacity in billion cubic meters**	**Costs in billion euro**
South Stream	63	20
Nabucco	31	7,9
TANAP	16	5
TAP	10	1,5

Table 1: Pipeline projects for gas supply to EU

3. DISCUSSION

Depending on energy imports, predominantly of oil and gas causes policy concerns relating to the security of energy supplies. There are two main sources of the energy insecurity of the EU faces: (a) gaps in the integration of the EU energy market; and (b) import disruptions (Chyong, 2015). In response to the possible import disruptions, the EU has fortified its supply law with the adoption of the new Security of Gas Supply Regulation in 2017. (New Security of Gas Supply Regulation, 2017). Russia is main supplier of the crude oil and gas to the European counties. To reduce the risk factor on gas supply, the EU seeks new alternative sources for diversification of the supply-risk:

1. Russian gas will not be able to satisfy both internal and external needs for oil and gas in the long-run. Demand in Non-EU energy market also own demand of Russia and Post-Soviet-Countries increases day by day.
2. As major exporter, Russia takes the high supply-risk on oil and gas business by suppling to the EU in the EU´s energy market and Non-EU energy markets. That's why the oil and gas companies of Russia takes part also on the other supply projects to EU.

Finding alternative sources might seem realistic for the EU; however, the EU needs to solve several economic challenges to import gas from following alternative sources:

- Import from the Middle East and North Africa;
- The Southern Gas Corridor, this project will supply in first period the Azerbaijani gas and the expectations are Turkmenistan and Kazakhstan also Iran and Iraq will join on the gas supply through this pipeline in future.
- Import LNG from the U.S, Australia, and Eastern Africa (Chyong, 2015).

Azerbaijan might play significant role on this issue to become route of the major pipeline projects to Europe and reliable political and economic partnership with the EU. The efforts to get the gas from Middle and Central Eastern countries through Azerbaijan is realistic and beneficial. Security is the key issue on the any energy projects of EU. The Middle East and Caspian and Central Asian countries with massive oil and gas resources might be considered as a potential supplier for EU. Azerbaijan as a very important regional country has implemented successful energy policy by securing immense volumes of hydrocarbons and attracting large number of investments to the prospective energy and energy transportation projects of the region. Let's remember that "Shah Deniz II" in Azerbaijan is the birth-place of the TANAP and TAP projects. However, the Azerbaijani and Central Asian gas transportation have the importance. To improve the security and diversity for the supply-risk of EU's energy market, the Southern Gas Corridor is being built on the combination of three pipelines:

- South Caucasus Pipeline (SCP) – Azerbaijan, Georgia
- Trans Anatolian Pipeline (TANAP) – Turkey
- Trans Adriatic Pipeline (TAP) – Greece, Albania, Italy (Mammadova, 2015, pp.34-39).

The corridor is intended to bring natural gas from Caspian Sea (Azerbaijan) to Europe. The overall length of corridor is 3.500 km which 1.850 km of the pipeline go through Turkey (Why TANAP). This is the possible shortest route from Caspian to Europe in existing conditions. In this project, Azerbaijan's location plays an important role in EU's energy security. The possibility of supply of Turkmenistan gas in the future increases the importance of the Southern Gas Corridor and involved countries. These three Projects have the total project value in 45 billion dollars and through the pipelines will get the EU´s energy market at first only the Azerbaijani gas (Gas from Azerbaijan for Europe, 2016). The participants which invested in this project are the big companies such as SOCAR – State Oil Company of Azerbaijan Republic, BP, Total, Statoil, Botas, E.ON, EGL and others.

Expectations of the EU on this Project is to meet 10 to 20 percent of the demand, it means 45 to 90 bcm per year. And this big amount helps to reduce the risk on energy supply to EU (Stefan, 2014, p.3). Secondly, gas transportation from any country is not main subject for the EU, as long as it is cheap (DG Energy, 2015). It seems that Russian gas will lead on the energy market of the EU for the long time. The EU wants to involve Ukraine in energy politics because of the geography. Ukraine gets 2 billion USD annually for the transiting gas from Russia to Europe (Pinchuk, 2014). The gas transit contract between Ukraine and Gazprom also very important for the supply. Gazprom & Ukraine´s contract depends also on the approval of Nord Stream-2. The new transit contracts will increase Gazprom's market share on European gas supply and distribution. Obviously, the European Union are mutually interested in routing the Azerbaijani gas to Europe through Turkey and Italy as an alternative. Though that, Azerbaijan has a big gas capacity, indeed it plays an important role in the EU's diversification efforts and is rather realistic partner among others. Among other alternatives, even though the Northern Iraq fields and Iran have potential gas reserves, both seem fairly unrealistic today, because of security issues, internal and external threats. After lifting sanction, Iran would become another important source for energy supply of the EU. However, today Iran is not interested in the South Gas Corridor. Because, Iran does not want to be dependent on Azerbaijan or any other country for gas transit and plans to sell its gas as LNG. The production of LNG is costly and Iran still prefers this option as the total production cost of Iranian gas is cheap since the gas fields are onshore. It seems, the EU's all efforts to find other sources of oil and gas supply clearly indicate that it aims for the diversification of the gas supply-risk for the EU´s gas market. Briefly it includes increase in supply from Central Asia and Azerbaijan through Southern Gas Corridor, EU's diplomatic initiatives in the Middle East region to create stable, as well as secure environment for gas projects that runs through Azerbaijan to Europe. On the other hand, the EU states have several times showed their high interest in the Central Asian fields to encapsulate this reduction in natural gas import. Cooperation with other regional states, particularly with Turkmenistan through Southern Gas Corridor might be less costly for Europe. However, several political factors say that Turkmenistan's presence in the European energy market through Southern Gas Corridor will give high benefits on gas supply to EU.

4. CONCLUSION

To sum up, significantly diversifying the gas supply-risk to EU is the important part of the EU´s energy strategy. The projects like TANAP and TAP increases the importance of the Caspian and Central Asian countries as the supplier. The birthplace of TANAP and TAP Projects, Shah Deniz II locates in Azerbaijan. Also, Azerbaijan has an importance as the future´s transit country of the Iran and Turkmenistan gas. However, Azerbaijan is the energy security partner of EU in the region. The energy demand of the European countries increases day by day. At the end of 2018 the one of the biggest European cruise company Aida presented its first cruise with gas engine in Germany. We have to take in account that, Germany has the biggest gas market in EU and gas to produces much more environment-friendly energy as the other conventional energy sources. It is imaginable that the start-point of the diversification on the risk of the gas supply of EU´s strategy for the energy security is Azerbaijan, with the Projects TANAP & TAP & SCPX. Dr. Stefan Meister, on his publication in 2014 searched also about the enormous potential in the Caspian Region and Middle East for gas supply. EU´s Nabucco project are extremely great projects with higher risk factor on it. Therefore, the projects like SCP, TANAP and TAP have been chosen by the participants. Caspian region has huge energy potential for the EU, because of the gas capacity of Iran, Iraq and Caspian gas (DGAP).

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DIGITALIZATION CHALLENGES TO GLOBAL BANKING INDUSTRY

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ABSTRACT
Globalization has been transforming contemporary world for the last 30-40 years. Almost in all countries offices of globally-operated banks wedged in national banking systems, grabbed a significant part of local clients pretending to a dominant position and, importantly, having enough resources to fulfil these plans. Digitalization process of the last several years has strengthened competition even more. It created new rivals for banks in the form of fintech companies (FinTechs). FinTechs are substituting banks in many traditional markets, including payment services, assets management and financial consulting. They suggest clients to interact with them in a very cheap and convenient way. But at the same time FinTechs bring with them new risks for consumers because these non-bank institutions are not regulated with full-fledged tools which are used by central banks to secure stability in the banking system. Digitalization requires from banks to be on the edge of innovation and to give an adequate response to new challenges. Smart-offices of banks with a seamless technology of serving clients, broad qualification of staff and other special features is one of the means in the fight of real banks with quasi-banks or shadow banks with digital nature. Another challenge for all but especially for banks in a digital epoch is a cyber security. If banks do not pay sufficient attention to the protection of financial and personal data of their clients, they pose a serious risk to consumers. Online theft of money from digital wallets and credit cards, money laundering through digital channels and many other crimes are inherent satellites of digital convenience and prosperity.
Keywords: *Digitalization, Digital Wallets, Fintech, Shadow Banks, Smart-Offices, Letter of Credit (L/C)*

1. INTRODUCTION

In modern economic realities, financial globalization has become the defining vector of transformation processes in national banking systems. The essence of this phenomenon is the development of new financial instruments and products, the inter-penetration of capital and digital technologies, deregulation of domestic financial markets, the development of international banks, strengthening ties and integration between the financial sectors of national economies, global financial centers and institutions. As a result, there is an occurrence and formation of a new configuration of the international banking business (IBB) in the global financial architecture (McCauley, McGuire, Von Peter, 2010, p. 29). In many countries offices of globally-operated banks held key positions in the list of top 10 biggest banks and grabbed a palpable part of local clients. Nowadays affiliates of international banks work under brands of their parent organisations or under the name of acquired local bank after an M&A (mergers and acquisitions) deal. Thus, the globalisation process has visible and invisible sides, and strengthening competition is the main backwash for domestic banks and the main benefit for clients in host countries.

Another manifestation of the process of financial globalization, its innovative component is the increasing role of digitalization of financial markets, in particular, the banking sector. It becomes the most important condition for achieving the competitive advantage of commercial banks in the global financial market, where domestic credit institutions in most cases are inferior in competitiveness to foreign ones. It should be noted that the digital economy creates favourable conditions for the innovative development of the IBB. However, this influence has not been studied enough and requires further research, taking into account the objective function of this type of activity, the transformation of the principles and models of the strategy of entry of domestic credit institutions to foreign markets, their adequate interpretation in scientific research in international finance. The digitization of economic processes is becoming a comprehensive trend, covering all areas of economic activity. The model of digital transformation of the banking sector should cover all the interrelated functional blocks of its activities, including the subunit of international business. The growth of the market associated with the international banking activity, the formation of its new look in accordance with international standards in recent years objectively require the subsequent activation of its digital component. The close interplay of the latter with the financial and external economic environment is considered to be a feature revealing the phenomenon of the "new economy". In this regard, the processes of digitalization must be considered in conjunction with the changes in the international banking business and its regulation. The main attention should be focused on those of them that contribute to the improvement of its stability and competitiveness in the face of volatility of market process. Among them are the following: digital platforms that create new markets for financial transactions; blockchain technology which offers step-by-step improvement in transaction efficiency and security; artificial intelligence that enhances the human ability in making decisions on cross-border financing; electronic maintenance of documentary operations on foreign economic activity, etc. Banks do not have monopoly on digital technologies. At any time, they can be outflanked by fintech-companies, which are more flexible having less operational costs. Banks have to spend money on keeping physical offices with a big staff of tellers, customer service representatives, bookkeepers, accounting clerks, loan officers and managers. Salaries, property taxes, requirements to create plenty of reserves, they are all a tremendous burden upon bank budgets. Banks should head a digital revolution, if they don't want to lag behind. And they try to do their best. Smart-offices of banks with convenient seamless electronic technologies and small staff with broad qualification of employers as well as online and mobile banking are among means in the fight for a client.

2. WHAT DIGITALIZATION BRINGS WITH IT FOR INTERNATIONAL BANKING

In the coming years, many of the new technologies will increase the effectiveness of cross-border operations, accelerate the growth of global capital flows. One of the examples of digital platforms in the financial markets is credit platforms for companies. Although the financial flows carried out by the platforms make up today only a small fraction of the total global financial flows, their potential is enormous. As practice shows, it is much more profitable than the services of traditional correspondent banks in terms of price, speed and efficiency (Denecker et al, 2016, p. 5). The digitalization of the trade finance by global banks lagged behind digitization in other segments of the IBB. However, the mutual influence of a number of factors, including the development of correct technical capabilities, an almost general shift in trade on open account and broader decision-making with the support of information technologies, have now created a certain impetus for the development of this vector of digitalization (Digital trade and trade financing, 2016, pp. 14-15). Trade finance solutions are increasingly being developed using the basic blockchain platforms, which is very attractive for trade finance, given that it has traditionally been ineffective, open to fraud and characterized by having too much documentation.

The blockchain technology has great potential to make global cross-border financial operations faster, cheaper and safer. For example, McKinsey estimates that the implementation of the clearing and settlements on the basis of this technology will save 50-60 billion dollars in expenses for interbank transactions between businesses (Botta, Digiacomo, Ritter, 2016, pp. 3-4). Blockchain can also provide credit from card to card, both nationally and internationally. Along with this, the use of an artificial intelligence will improve foreign operations and reduce the prevalent information asymmetries when working in other countries. All this testifies to the growing role of digital technologies in the context of the implementation of the imperatives of a new wave of financial globalization. The analysis of the important activities of the IBB – banking services for foreign economic activity and, in particular, one of its main tools – L/C forms of settlement, revealed a downward trend in their use since 2014 (Murshudli, 2013, pp. 256-259). Thus, according to the annual report on the Revaluation of Trade Finance Finance), conducted by the International Chamber of Commerce (ICC), in 2016, the volume of issuance of documentary letters of credit showed the third annual decline, although the percentage decline of 2.81% is the lowest since 2010 ode (2011 – 2.44%, 2014 – 2.50%, 2015 – 3.76%) (Rethinking Trade&Finance, 2017, p. 89). This is accompanied by a decrease in the average cost of a letter of credit (from $643 thousand in 2014 to $315 thousand in 2015 and $463 thousand in 2016) (Rethinking Trade&Finance, 2017, p. 24; 2016, p. 52). As a result, in the field of international trade there is a decrease in the share of documentary letter of credit as the main instrument of trade financing. Among the reasons for the current situation with the use of letters of credit, specialists call for, among other things, the slowness and high cost of this way of doing international business for entrepreneurs, the length of time they settle documentary issues on payment and transportation. At the same time, there is a tendency of unmet demand for trade financing in the world: according to ICC, 61% of banks (vs. 53% in 2014) believe that there is a global deficit in trade financing instruments (that is, the demand for them is more than the supply), and letters of credit will continue to be important for 10% of enterprises involved in world trade in goods, which is a significant indicator in the total volume of trade (Rethinking Trade&Finance, 2016, pp. 70-71). All this necessitates the development of proposals for the digitization of documents for a letter of credit, contributing to the acceleration of the implementation of this form of bank settlements. This is of particular relevance for countries in which the commodity sector predominates in foreign trade (in particular, for Azerbaijan and Russia), since it is here that a significant part of the activity is carried out on the terms of the form of credit. Foreign economic activity is moving steadily towards the electronic presentation of documents on a letter of credit. In our opinion, banks and their customers cannot ignore the advantages of using them. Thus, according to the UN, the cost of processing paper documentation increases the cost of goods in foreign trade by 5-10%. Today there is a UN project on the introduction of electronic trade documents (UNeDocs). The general idea of the project is to create a unified solution for data storage and management. Further dissemination of the UNeDocs model of electronic trade documents will simplify the process of transition from the "paper" to the "paperless" working environment. There are also a number of specialized programs for documentary operations. However, they all differ from each other, are quite expensive and require technical support and information and consulting services, which leads to significant additional costs. Therefore, only the emergence of such a software product that would take into account all the requirements for the electronic system would be convenient and affordable and ensure its smooth functioning, will allow banks and subjects of foreign economic activity to rationally and effectively combine information and financial resources, as well as ensure effective organization and successful implementation contracts involving payments for letters of credit (Murshudli, 2018, pp. 192-193). Among the issues that, in our opinion, need to be addressed when creating an electronic system, are the following:

- Determination of the authenticity of the electronic signature on the documents provided by

the beneficiary in electronic form. It is necessary to summarize the existing developments in this area and adapt them to the electronic system for carrying out operations on letters of credit.

- Identification of the person who owns this electronic signature and who is authorized to sign the corresponding document. This requires the smooth interpretation of such a signature by all participants of the letter of credit operation, for which it is important to ensure the implementation of the rapid identification of the signature and its reliable protection against use by third parties.
- The ability to verify documents for compliance with the terms of the letter of credit. For the user of the system, the implementation of such verification should be convenient. This concerns the format of documents, their display on the screen, etc.
- Ensuring the reliability and confidence that the document has not been made illegal changes or corrections. The electronic system should exclude the possibility of making changes to the documents that are required under the terms of the letter of credit, an unauthorized person, and to warn about illegal corrections.
- Unification of the form of messages between the client and the bank, acceptable and convenient for both parties. The electronic system, in our opinion, should provide for the possibility of creating, developing, implementing or using certain templates for such messages.
- Compliance with formats for unified documents (transport, insurance, etc.), clearly defined by international (in some cases, national) practice. The electronic system must accept all the parameters set.
- Ensuring a high degree of protection of the electronic system from encroachments and the penetration of unauthorized persons into it. Participants of a letter of credit operation must be completely confident in the reliability of this system, the neglect of which can lead to significant losses, both from banks and their customers.
- Minimize damage to documents during their transfer through the system. The integrity of the documents avoids duplication.
- The absence in some countries of legislation recognizing electronic documents, electronic signatures and electronic identification techniques, and the traditional use of paper media as documents.

As an alternative for the further development of international banking operations, it is proposed to use such digital innovation as a blockchain platform. As is well known, in trade financing, due to a conservative approach to the problem and the presence of established processes, digital technologies are still being slowly introduced, although the technological process is inexorably progressing. As a result, fintech companies can come to the aid in the development of trade finance, which in the future will become competitors and a threat to classical banks, since their technical capabilities and technologies are ahead of the practice of commercial financing. This is indeed possible, given the traditional nature of trade finance, which entails a significant amount of paper and human labor associated with the timely execution of transactions, and the presence of numerous cases of fraud that are associated with the manipulation of trade documents. Since any transaction in classic trade finance is a complex operation involving a large number of parties (importer, beneficiary, issuing bank, executing bank, advising bank, confirming bank, etc.), therefore the availability of digitization of these processes will significantly reduce document the amount of information without loss of information and reduce the time of the payment. Given the potential of blockchain to enhance the role of trade finance in international trade, a number of foreign banks (Standard Chartered Bank, DVS Bank and Infocomm Development Authority of Singapore) have developed a common concept for the trading platform based on this technology.

This is the first such application by banking institutions for blockchain trade finance, which allows you to track invoices, convert them into digital assets, maintain loans to suppliers, reduce the risk of duplicate invoices and maintain customer confidentiality. This platform is considered as an open ecosystem in which neutral third parties can participate and verify the authenticity of funded trade documents. In the future, the assembly of all documentation and processing steps related to the transaction in trade finance may occur and be fully reflected in the blockchain technology. This technology will allow transferring paper documents and the letter of credit itself to the blockchain (Shapiro, 2017, pp. 43-44). Smart contracts based on blockchain technology, providing a single, consistent, trade transaction report confirmed by all parties, can be considered a key innovation for trade finance. The financial and technological research consortium R3 CEV LLC (headquartered in New York), which brings together more than 200 firms engaged in research and development on the use of blockchain in the financial system and other commercial areas, also recently announced testing LC accounts and transactions. Participants include 80 leading global financial institutions, such as Barclays, BBVA, BNP Paribas, Commonwealth Bank of Australia, Danske Bank, ING Bank, NSVC, Intesa Sanpaolo, Natixis, Nordea, Scotiabank, UBS, Unicredit, US Bank, Wells Fargo and others. Banks have developed and used smart contracts for the blockchain platform Corda (Hearn, 2016; Brown, 2018), distributed for the processing of transactions in transactions with receivables and LC-transactions (DiCaprio, Jessel, 2018, pp. 2, 6, 8; DiCaprio, Malaket, 2018, pp. 10). In April 2018, Finastra – is the third largest Fintech company in the world – launched the first live application on Corda R3. Fusion LenderComm: this blockchain-based platform for syndicated loans became commercially available after it was successfully tested by seven international banks, including BNP Paribas, BNY Mellon, HSBC, ING, Natixis and State Street (Wass, 2018). The introduction of blockchain will enhance the role of trade finance in international trade in the future, and also help simplify the manual processing of import/export documentation, increase security by reducing errors, make working capital of companies more predictable and increase convenience for all parties through mobile interaction.

3. BANKS AND THEIR DIGITAL RIVALS. HOW TO WIN IN DIGITALIZATION EPOC?

Digital solutions transform global finance (Manyika, Lund et al, 2016, pp. 31-43). Convenient applications and online services offered by digital platforms are beginning to break the banks' monopoly on customers, and clients have an access to services on any device at any time, receive personalized offers and make instant decisions. Banks compete with companies of a fintech industry and this competition is increasing in many spheres. Fintech-companies carry out individual banking operations, but they don't need to comply with all banking requirements according to a banking act or directives of a central bank. There is no adequacy in a banking regulation and a regulation of electronic quasi-banks. That's why the latter doesn't need to have a big capital and to make large reserves. That is their competitive advantage. Fintech-companies appeared as bank assistants, but now they are self-sufficient and moreover are replacing banks in their traditional markets. Fintech-business includes a broad set of services and technologies such as an artificial intelligence, biometric data processing, data encoding with help of cryptoalgorithms, cloud computing and convenient payments. Investment in fintech-industry soared from $9 billion in 2010 to more than $25 billion in 2016 and their market value became 4 times more in the last decade (Griffoli, 2017, p. 27). According to KPMG estimates, by the middle of 2018, global investments in fintech companies reached $57.9 billion and exceeded the figures for 2017 ($38.1 billion) by almost 52.0% (Pollari, Ruddenklau, 2017). China is a world leader who invests over $7 billion in a fintech-industry followed by the USA (over $5 billion), the UK (near $2 billion), Germany ($0.6 billion) and Japan ($0.5 billion). Banks need to invest in IT not less than fintech-companies in order to keep up and succeed in future.

And they do it. The biggest banks annually spend $3-5 billion on electronic systems. The second biggest bank of Russia VTB bank spend near $1 billion on IT a year. At this inflection point there is a fundamental transformation of a traditional offices into the new ones. Physical offices of banks will hardly get off the stage and will unlikely be replaced entirely by their electronic branches. According to a McKinsey's overview a quarter of all bank clients in Italy and Sweden prefer to make all banking operations remotely, but we'll find only 14% customers like that in Germany and the UK (Dallerup, 2018, p. 1). 46 per cent of Italians come to banking offices or use ATM because they see no alternative (Figure 1). A direct contact with a bank employee or a bank equipment is a safer method of managing money and accounts as these clients see it. That's why banking offices are transforming rather than disappearing. They are being equipped with interactive teller machines with remote tellers as well as interactive digital walls and special service terminals which can accept applications for new products and give these products out (e.g., credit cards). The space in banking office is changing too. The self-service area is increasing, and the assisted sales and servicing zone is significantly decreasing. Those customers who need more complicated products like mortgages or letters of guarantee will be able to ask questions in a special video conferencing room. The consultations are accessible there at all hours. Banking products in smart-branches are becoming more personalized. In such offices the dividing line between VIP and standard bank servicing became less and less distinct. It opens the door to flexible pricing for banking products.

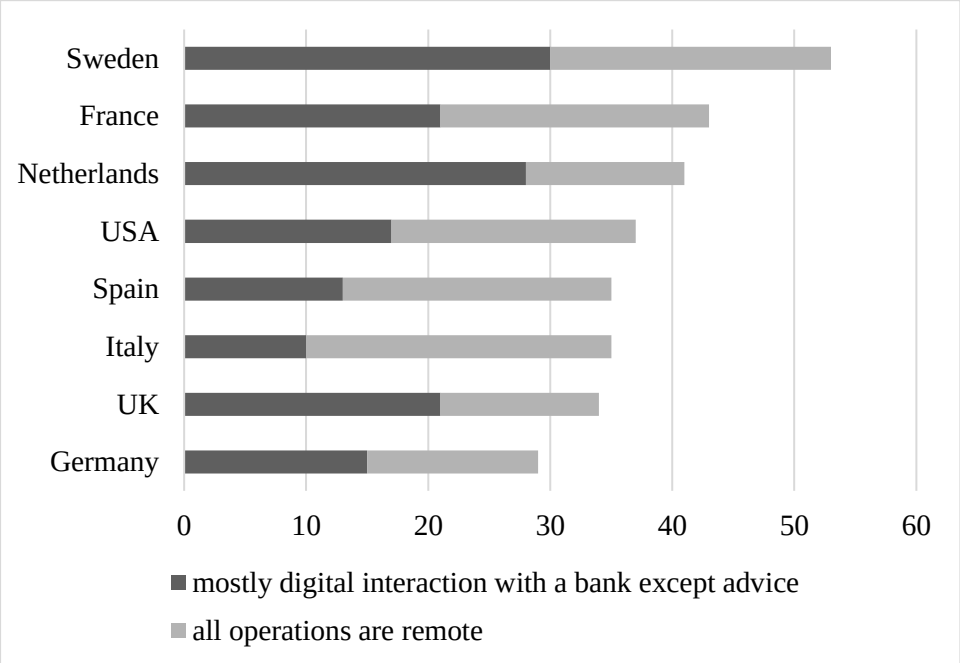


Figure 1: Share of bank clients who prefer remote electronic interaction with a bank (Dallerup, 2018, p. 1)

Operations of smart-offices are the middle ground between online and offline banking and threats they create is a result of their dual nature. There is a risks of the full shift to a digital identification of a client which can be compromised by criminals and restored with difficulty. There is also a high risk of a universal employee bribery because a new generation of bank employees are very valuable for criminals as they have a full access to all bank services, technologies and full information about any client. Criminals can use such employers and client information in money laundering schemes (e.g., on the layering stage) (Shadow Economy All Over the World, 2018, p. 8).

4. COUNTRIES' UNREADINESS TO ACT AND INTERACT EFFECTIVELY FIGHTING DIGITAL FINANCIAL THREATS

Besides competition challenges and electronic document circulation problems global banking industry as well as other industries met with serious digital crimes and can't answer them without help of state authorities. Cybercrime scale throughout the world is enormous and is growing year by year. According to the US FBI's Internet Crime Complaint Center 1,42 million Internet crimes were committed (received complaints) across the globe over the last five years with a total reported loss of $5.52 billion (Internet Crime Report, 2017). In 2017 the biggest losses were made by business email compromise (over $675 million), confidence fraud and online criminal romance (over $211 million), non-payment or non-delivery of goods (over $141 million). In 2017 the Russian banks alone lost Rub1,35 billion (equal to $22 million) because of electronic hacking into bank accounts and other online crimes (REGNUM Information Agency, 2018). The fight with this evil has just started. Many countries haven't adopted special anti-cybercrime laws yet. Legal procedures and evidences of internet crimes differ from country to country. One of the complicated juridical problems is an evidence of connection between particular computers, files, notes, pictures, data with criminal content and a particular person who used them in his crime. The traditional investigation and search of exhibits often are not usable in electronic crime case. A number of South-East Asian countries use "a time approach". It means a particular user of a computer in time of a cybercrime is a criminal. At the same time there are some electronic crimes which can't be investigated by this method. Punishments for cybercrimes in different countries also vary from a fine to a death penalty. So, we can state that there are low readiness and lack of unification of legal and technical tools which are used by national law-enforcement bodies and supervision authorities in their fight with cybercrimes especially when they are cross-border. Another international problem of countering cybercrime is lack of trust and practical interaction between law-enforcement bodies of different countries. Distrust of countries is an excellent ground for cybercriminals to escape justice. The insufficient financial knowledge of common people and even business community in most countries also make difficult the fight with cybercrime, and vice versa, it makes life of light-fingered gentry easier. The counteraction of digital crimes requires special explanations, because one can receive an unnecessary financial service, lose money, give personal information by a rash click of a computer mouse. The Russian Ministry of Finance has been carrying out a program of increasing financial literacy including the so-called Saving Weeks. However, the level of knowledges, especially among the old generation, stays extremely low. Protecting customer data and money is a great challenge for banks. There is no 100% guaranty that all electronic banking systems are safe. Criminals have learned to crack two-factor authentication and insensibly steal money holding a special NFC-gadget near an unaware man's bag with credit cards.

5. CONSLUSION

Global banking industry is among leaders of digitalization and electronic business, but banks are not alone in the market of digital technologies and products. Fintech-companies are their main rivals and competitors who want and try to seize the initiative away. They are not burdened with common banking costs and bank reserve requirements. But at the same time banks are "old-timers" in the financial market. They are deeply embedded in international flows of capital and cross-border transfer of money. Fintech-companies have not yet substituted banks in the market of banking guarantees or letters of credit as the main tools of international trade and will hardly do it. In line with the spirit of our digital time banks are actively fostering new forms of client servicing and new types of banking offices. Smart-branches of banks with a seamless technology, universal qualification of staff and other special features is an answer of banks to digital challenges and strengthening competition in digital sphere.

Digitalization brings with it numerous cybercrimes, and banks will not be able to cope with them without help of state. Banks and their clients lose millions of dollars meeting with online hacking, non-payment and other digital crimes. Unfortunately, governments are not ready to act effectively and interact with each other on the international level fighting digital financial threats. The absence of single national standards in the fight of cybercrimes, lack of trust between law-enforcement bodies of different countries, insufficient financial and digital literacy of common people just aggravate digital threats to banks.

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FOREIGN BANKS IN TRANSITION ECONOMIES: TRENDS AND IMPACT ON SYSTEMIC STABILITY

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ABSTRACT

Our paper investigates foreign banks impact on financial stability in transition countries during the boom-bust cycles, especially their contribution to the evolution and realization of systemic risk.The purpose of this study is to carry out theoretical pros and cons of foreign banks presence in post-soviet countries based on empirical evidence from their activity and risk profiles under different economic conditions and regulatory regimes. A comprehensive retrospective study of global bank capital entries into transition economies, reasons of foreign capital outflows and the dynamics of banks key financial indicators was carried out, as well as a comparative analysis of foreign versus local bank groups due to systemic financial sustainability. The results of this study indicatethat foreign banks appeared more solvent during economic crises in transition countriesin comparison with local private banks, despite great financial losses and required capitalization. The differences in default levels and response to the crisis among foreign and local banks were found. Instead of cross-border contagion channel strengthening, foreign banks presence, higher customer loyalty and capital support from parent institutions reduced deposit outflows and smoothed the potential impact of financial instability during the crises. On the contrary, the need of modern early warning monitoring system of foreign banking still exists because of possible rise of concentration and potential non-financial risks related to geopolitical motives and strengthening of compliance requirements. Main findings of empirical analysis contribute to a deeper understanding of the ownership influence on the systemic risk formation in theCEE and post-soviet banking sectors during the previous booms and crises. Grounded on the empirical data analysis, important patterns in cross-border funding and systemic risk channels were found. It allows to forecast properlyfuture benefits and risks of foreign bank presence in transition countries for regulatory and business purposes.

Keywords: *foreign banks, financial stability, systemic risk, bank crisis, transition economies*

1. INTRODUCTION

Foreign banks appearance in 1990s and further activity during 21st century became an important indicators of economic and social developmentin transition countries while developing effective global-oriented market economy, which more generally have to be reflected in implementation of such core elements as rule oflow,protection of private property and democratic values.But newly formed post-crisis financial landscape in Central Eastern Europe (CEE) and CIS region during 2nd decade of 21st century continues to be subject to challenging

researchesin comparison with previous well studied period of massive foreign capital expansion in CEE and post-soviet economies, caused byliberalization combined with new M&A wave and Great Moderationin the parent western countries during 1990-2007. After the global financial crisis in 2007-2009, European sovereign debt crisis in 2010-2012 and series of more recent local recessions and financial turmoils in CEE and CIS, rise of neo-protectionism policy the national banking markets have suffered not only from lower financial performance, higher non-performing loans (NPLs) and more severe regulations, but also from strategic interestsdecreasing of international financial holdings. Therefore, previous trend of foreign banks expansion turned into opposite way in the wide range of transition countries, while some economies remains open, successfully enhancing external financial capital inflows with the help of upward recovery direction of global markets in 2015-2017.Impressive changes of the national banking systems ownership structures and volatile financial performance became a source of new wave of academic and policy discussion about the role of foreign banks in financial sustainability of transition economies. Thus, this study raises following questions: What is the difference between the levels of foreign banks presence in CEE and post-soviet countries? What are the main tendencies of foreign capital movement in the transition banking systems based on empirical evidence during the last decade? What are the results of foreign bank penetration and external capital outflows in terms of financial sustainability of banking sectors in SEE, CE, Baltic, EE and CCA regional clusters? The research determines the level of foreign bank presence in CEE and post-soviet countries banking system over the period 2007-2017. The next step is testing the relationship between foreign bank penetration trends and financial stability in transition countries.Our study based on complex panel dataset with transition banking system performance and soundness indicators not included on consolidated basis in the previous literature on foreign bank activity in the region. Last, but not least,we also find that new phase of transition countries' banking sectors development is characterized by strengthen the state's share in the general ownership structures through the reduction of local private banks' share or even shortening theforeign banks presence, which distinguishesrecent "post-crisis recovery period" from the previous "Great Moderation" stage of foreign banks penetration. The paper itself is structured as follows. Section 2 starts with a literature overview of the main field of studies on the foreign banking in CEE and CIS countries. Section 3 provides a descriptionof the construction of the database, main variables and research method. Section 4 examines the empirical results about the importance of foreign banks in the host countries banking systems, main tendencies of foreign bank activity in the selected macro-regions, and also some evidence on the relationship between foreign bank expansion and banking sector developmentduring the financial crisis and recovery times.Section 7 concludes.

2. LITERATURE REVIEW

Numerous researches on foreign banks activity showed a positive relationship between the presence of foreign banks and the stability of the banking system (Levine, 2001, p. 690), close correlation between foreign banks and competition level (Claessens and Laeven, 2004; Cull, Peria, 2007), and also that a large foreign banks sharein the capital of the banking system increases total operational efficiency (Caprio, Honohan, 2000). Works investigating important role of foreign banks in the "cream-skimming" strategy(Sarma & Prashad, 2014), stimulating dollarization (De Nicoló et al, 2003) or morecreditreductionduring the global crisis compared to domestic banks, except when foreign banks dominated the host banking systems (Claessens, van Horen, 2014; Brown, De Haas, 2010) are of particular interest. At the same time, the national peculiarities of the studied region were reflected in a number of studies on the expansion of foreign banks into CEE markets (Raiffeisen, 2017; Arakelyan, 2018; Bongini et al, 2017; De Haas, Korniyenko et al, 2012) and the CIS (Nabiyev et al, 2016) and, in particular, Azerbaijan (Murshudli, 2013, 2018), Ukraine (Kornyliuk, 2018, 2018), Russia (Vernova,

2018), Poland (Havrylchyk, 2006), Serbia (Gnjatović et al, 2011) etc. In general, there were discovered both positive and negative aspects of foreign banks presence in the host banking systems in transition economies. Among the positive externalities, the following should be highlighted: a) import of modern banking technologies and financial innovations; b) enhancing economy of scale and market consolidation; c) competition increasing; d) FDI attracting; e) facilitating the inflow and diversification of the financial capital sources; e) financial markets development and efficient infrastructure. Critics of the foreign banks penetration delivered following arguments: a) the strengthening of external geopolitical control over the redistribution of assets in host countries; b) the risk of inconsistency between the goals of foreign banks and the objectives of the economic policies of host countries (for example, import supporting activities from the parent countries instead of export or social projectsfinancing); c) cross-border "export of instability" during the crisis in the parent country; d) problems of regulatory arbitration and consolidated supervision. We believe that the study of the volatile2007-2017 period in transition economies provides an opportunity to more accurately assess the pros and cons of foreign banks on the basis of extensive empirical material, which is currently not yet sufficiently discovered. This paper contributes to the literature on foreign banking in two ways. It introduces anew and comprehensive database on foreign bank share in assets, covering 24 countries from 2007 to 2017. And, using this extensive database, it provides salient facts on trends in foreign ownership, compares dynamics of foreign and state bank shares in systems, and analyzes the relationship between foreign bank presence and financial development and the impact of foreign banks on financial stability during the "Post-Great Moderation" period, which contains global, regional and a lot of local crises, following by recovery phases.

3. METHODOLOGY

3.1. Data

Our data consist of panel annual data for 2007-2017 period on different parameters of foreign and state bank shares in banking sectors assets and financial soundness indicators for each among 11CEE and 13 Post-soviet countries.Some countries are excluded due to lack of sufficient data and lack of developed banking system in terms of total assets volume. In building the database, many sources were used, including IMF, World Bank,Global Financial Development Database, FRED, EBF, ECB, individual central banks' annual reports and financial stability reports, The Banker, CEICetc. This allowedus to cover many more countries than many past papers have and to cross-verify information.

3.2. Research Methods and Categorization of Countries

The research methodology was based on a retrospective comparative graphical data analysis on the dynamics of both foreign and state banks share in total assets, as well as a number of key indicators of banking sector financial sustainability intransition economies from CEE and the post-Soviet area. With the aim of more correct comparative analysis of countries from different experiences of implementing market reforms, varying degrees of financial liberalization, and distinguishing trajectories of economic development, the authors propose the following classification of the studied countries in terms of their historical and geographical similarity (table 1).

Table following on the next page

Table 1: Categorization of selected countries (based on IMF, Raiffeisen, etc)

Region	Sub-region	Selected countries
CEE	SEE (Southeastern Europe)	Albania (AL),Bulgaria (BG), Bosnia and Herzegovina (BA), Romania (RO), Serbia (RS), Croatia (HR)
	CE (Central Europe)	Poland (PL), Slovakia (SK), Slovenia (SI), Hungary (HU), Czechia (CZ)
Post-soviet	BALT (Baltic region)	Estonia (EE), Latvia (LV), Lithuania (LT)
	EE (Eastern Europe)	Belarus(BY),Moldova(MD), Russia(RU), Ukraine(UA)
	CCA (Caucasus & Central Asia)	Azerbaijan (AZ), Armenia (AM), Georgia (GE), Kazakhstan (KZ), Kyrgyzstan (KG), Uzbekistan (UZ)

3.3. Variables

The level of foreign bankspresence in our study is determined by calculating the total share of foreign banks in the total assets of the national banking system. At the same time, we considered a foreign bank asa bank, 50 percent or more of which is controlled by a foreign beneficiary. If possible, we tried to exclude the so-called pseudo-and quasi-foreign banks from the analysis.That final set of indicators used in identifying the financial stability of studied countries is given in Table 2.

Table 2: Selected variables (Bankografo, 2019)

Variable	Formulae	Description
Capital Adequacy	Equity / [Risk-weighted] Assets	Capital Adequacy – traditional solvency ratio, which ensure the efficiency and stability of banking system
ROA	Net Profit / Assets	Return on assets – standard profitability ratio
ROE	Net Profit / Equity	Return on equity – standard profitability ratio
NPL ratio	NPLs / Gross Loans	Total NPL ratio reflects asset quality of banking system
Bank assets to GDP ratio	Bank Assets/GDP	Assets to GDP ratio – a proxy for financial inclusion, credit availability and the share of banking in economy

4. EMPIRICAL FINDINGS

4.1. Foreign bank presence in transition economies

According to our research, most of the CEE countries, with the exception of Slovenia, Poland and Hungary, are characterized by high marketshare of foreign banks in assets at over 75% as of December 31, 2017. While in post-Soviet countries foreign capital is distributed more unevenly, with two distinct groups of countries in terms of the role of foreign banks. Figures 1 and 3 show the shares of foreign banks in assets of CEE and the post-Soviet region countries, respectively, of at the beginning of the study period on December 31, 2007 in green bars, and the red dots as of December 31, 2017.

4.1.1. CEE countries

The maximum level of foreign banks activityis observedat Czech and Croatian markets - more than 90%. Relatively high market share of non-residents (over 75%) persists in most countries of the SEE subregion. While Central European economies of Poland, Hungary and Slovenia have average indicators of foreign control over the banking system.

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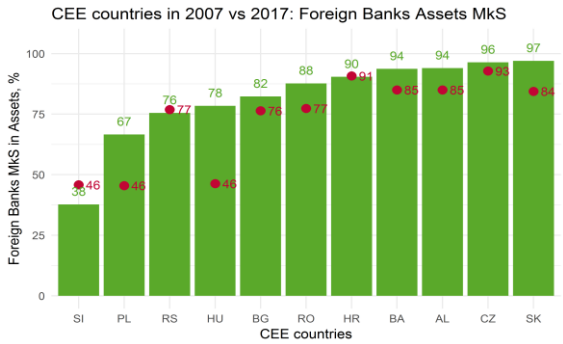


Figure 1: CEE countries in 2007 vs 2017: Foreign Banks Assets MkS (IMF, CBs)

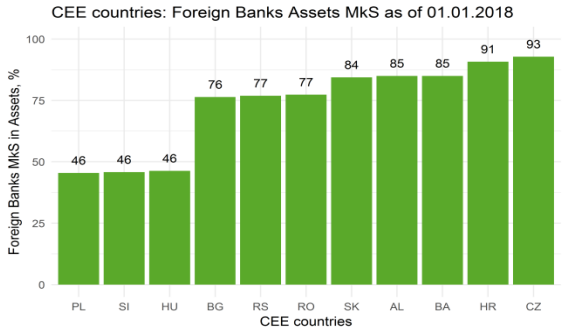


Figure 2: CEE countries: Foreign banks assets MkS as of 01.01.2018 (IMF, CBs)

4.1.2. Post-soviet countries

The average level of foreign banks presence in post-Soviet economies is substantially lower in comparison with the previous group, although there is a significant heterogeneity of studied countries sample. One of the possible reasons of such difference could bede-facto liberal or protectionist path of economic development, that creates favorable or unfavorable investment environment.

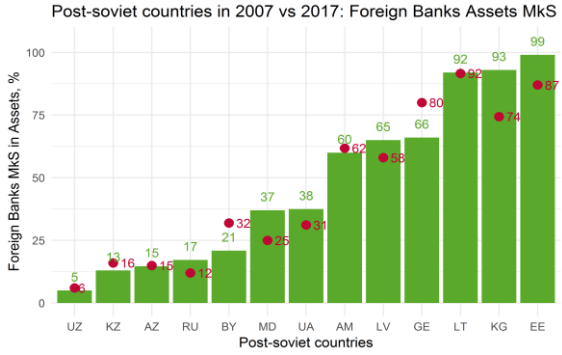


Figure 3: Post-soviet countries in 2007 vs 2017: Foreign banks assets MkS (IMF,FRED, web sites of central banks)

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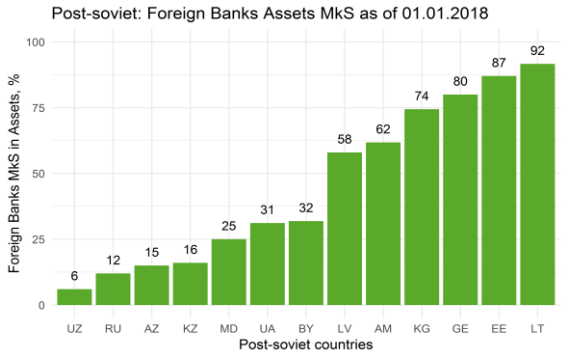


Figure 4: Post-soviet: Foreign banks assets MkS as of 01.01.2018 (IMF,FRED, web sites of central banks)

It should be also indicatedthat in most CIS countries quasi- (with a minority share of non-residents less than 50%) and pseudo-foreign banks (controlled by residents hidden behind offshore nominal owners) often prevail. This leads to a distortion of statistics on the aggregateforeign capital share and the market share of the de-facto foreign banks.

4.1.3. Foreign vs state bank ownership in transition economies

The graphs show the relationship between the shares of foreign and state-owned banks by countries as of December 31, 2007 (fig.5) and December 31, 2017 (fig.6). The downward concave nature of the relationship of these two indicators in 2007 was due to the significant share of private local banks that left the market as a result of insolvency and regulatory cleansing policies of central banks in Ukraine and Russia, as well as state capital strengthening in Slovenia and Uzbekistan. As a result of these processes, a more direct line of interdependence of the market shares of foreign and state banks has been formed.

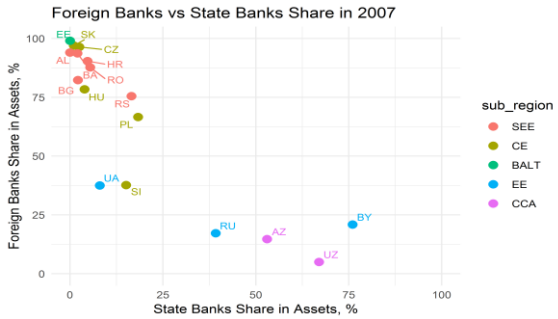


Figure 5: Foreign banks vs state banks market shares in 2007 (IMF,FRED, web sites of central banks)

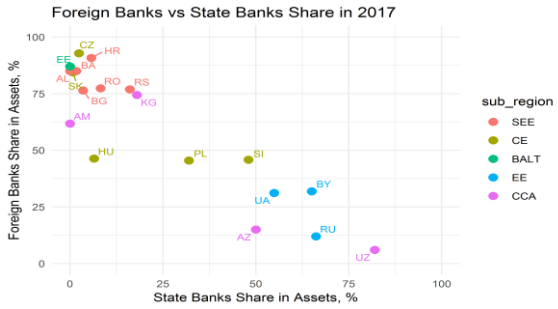


Figure 6: Foreign banks vs state banks market shares in 2017 (IMF,FRED, web sites of central banks)

Thus, CEE and CIS countries are experiencing redistribution of banking market shares in favour of national governments and international participants, with marginalization of local private owners. Despite positive impact on related-party lending problems, this new tendency of financial development can imply increasing of systemic risk related to shortening competition and moral hazard externalities. Traditional operational inefficiency of state-owned financial institutions and propensity topreferential regulations are the main source of doubts about future market discipline and effectiveness of solving crisis challenges.

4.2. Trends in foreign bank ownershipduring 2007-2017

After the global crisis of 2007-2009 the historically high level of foreign capital in CEE and the Baltic countries began to decrease gradually, reversing the previous trend, caused by the European integration of the countries (fig.7). Eastern Europe, the Caucasus and Central Asia after the intensification of the foreign capital inflow are experiencing a period of slow reduction. But the dynamics of the share of foreign banks was multidirectional both in time and across countries.

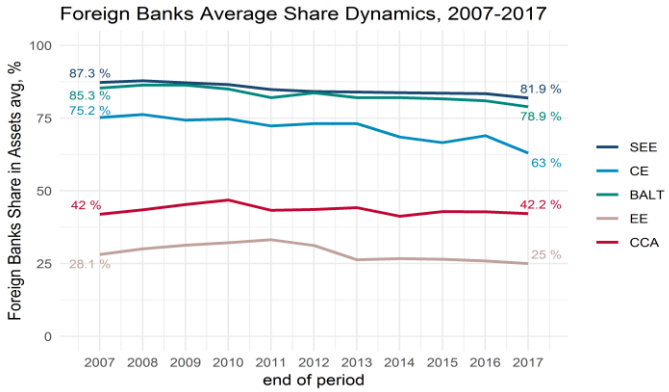


Figure 7: Foreign banks average share dynamics by sub-regions, 2007-2017 (IMF,FRED, web sites of central banks)

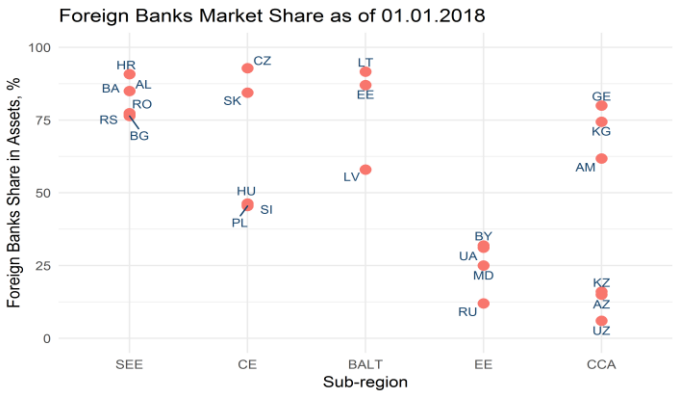


Figure 8: Foreign banks market share as of 01.01.2018 (IMF,FRED, web sites of central banks

4.2.1. Southeastern Europe (SEE)

Compared to other subregions, the Balkan countries are characterized by the maximum presence of foreign banks throughout the entire study period, despite a slight decrease (fig. 7, 8), caused primarily by a reduction in the market share of non-residents by 7-10 pp. in Albania, Romania, Bosnia and Herzegovina. At the same time, the level of non-residentialcontrol in Serbia and Croatia is relatively stable, having increased by 1 pp.

4.2.2. Central Europe (CE)

The Central Europe region, which previously, with the exception of Slovenia, was totally absorbed by foreign banks, after the global crisis, is experiencing a period of more substantial comparing with Balkans reduction in the foreign banking capital share due to substitution by the state-owned banks, which is especially characteristic of Poland. The government has launched a new financial strategy for the development of foreign banking sector from around 60 percent to 46 percent. The median value of the market share of foreign banks in CEE fell from 75 to 63%. For 2007-2017 the share of foreign capital also decreased in Hungary, the Czech Republic, and Slovakia, while in Slovenia increased from 38 to 46% (Fig.1).

4.2.3. Baltic region (BALT)

The Baltic countries demonstrate a slight decrease in the share of foreign capital comparable to that of the SEE region. It should be noted that Estonia (-12 pp) and Latvia (-7 pp) acted as the driver of the process, reducing market share of non-residents for 87 % and 58% respectively. In Lithuania, the value of the indicator remained almost unchanged in the range of 91-92%. The presence of subsidiaries and branches mainly from the Scandinavian region (SEB, Swedbank, Nordea etc) in Lithuania and Estonia stays at a high level.

4.2.4. Eastern Europe (EE)

The countries of the post-Soviet region are characterized by heterogeneity of foreign banks participation, which is on average less significant than in the CEE countries integrated in the EU. Foreign banks reduced their presence in the Eastern European economies of Ukraine, Moldova, Russia during 2009-2017, despite the high level of defaults in the segment of local private banks that were most affected by the cleansing regulation policy. The voluntary and civilized exit of certain foreign banks from Eastern Europe was primarily associated with chronic crises and the need to cut operating expenses due to the high sovereign risks. The exit of foreign capital from Russian Federation continues, aggravated by international sanctions, while in Ukraine the foreign banks that have survived practically stopped and have strong financial positions after successful capitalization.During the cleansing period in 2014-2016, foreign banks, strategically interested in the presence in Ukraine, began to recover previously lost positions and turned out to be better prepared for the next stage of banking market development.

4.2.5. The Caucasus and Central Asia (CCA)

In the CCA region, there are two clusters of countries: with a high (60-80%) and low (0-20%) foreign bank market shares in the assets of the banking system. The latter, at this stage of development, declare the irreadiness and openness for foreign investors to enter the banking market, with whom they pin their hopes on additional capitalization and solving the problem of the low efficiency of dominant state or private banks. Neighboring CCA countries with a high proportion of foreign capital did not suffer from a possible out flow of capital during the crisis period, but rather contributed to the stability and better penetration of financial services, while European subsidiary banks practically did not go bankrupt.

4.3. Foreign banks and banking sector stability

Given the wide discussion about the impact of foreign banks on the financial sustainability of host countries, we have attempted to study the soundness indicators and the share of non-residents in the banking sector. We did not focused on of macro-financial stability aspect, only considering key indicators of solvency, profitability, asset quality and bank assets-to-GDP ratio, since the influence of foreign capitalism noticeable at the level of the banking system in comparison with macroeconomics.

4.3.1. Capital adequacy and foreign bank presence in transition economies

It should be noted that there is the absence of a linear relationship between the share of foreign capital and solvency. A more influential factor for the value of the capital adequacy ratio is regional affiliation (with the exception of CCA, where higher levels of CAR correspond to higher levels of foreign capital). So, the Balkan countries are leading in this indicator. While the Baltic countries, despite the high proportion of foreign capital, demonstrate borderline values (about 10%).

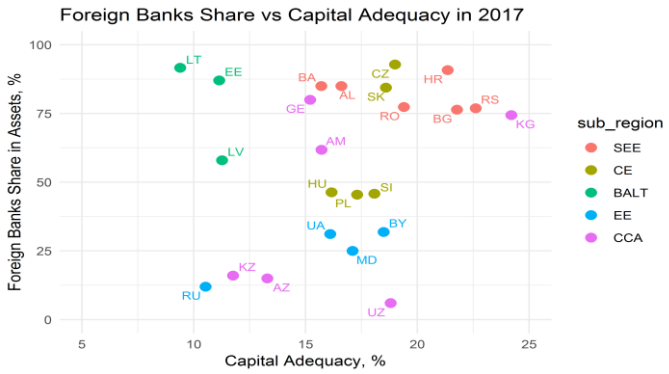


Figure 9: Foreign banks share vs capital adequacy in 2017(IMF, web sites of central banks)

4.3.2. Profitabilityand foreign bank presence

As in the case of the previous indicator, we do not observe a clear relationship between the profitability and foreign bank presence as of 12/31/2017 (Fig.10). At the same time, the historical volatility of the indicator, expressed by the standard deviation of ROA, is minimal in predominantly countries with a high proportion of non-residents (Fig.11). This partially confirms the hypothesis about the positive impact of foreign control on the level of stability and efficiency of national banking markets.

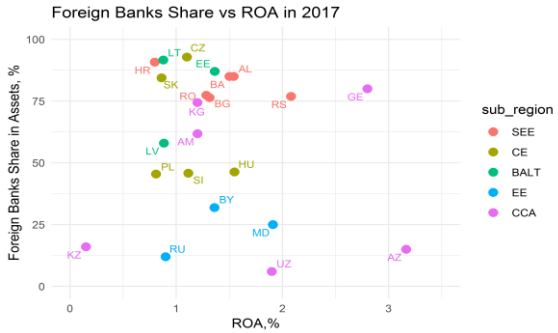


Figure 10: Foreign banks share vs ROA in 2017 (IMF, web sites of central banks)

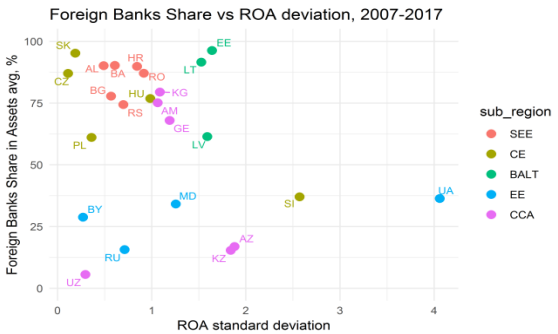


Figure 11: Foreign banks share vs ROA standard deviation, 2007-2017 (IMF, CBs)

4.3.3. Assets quality and foreign bank presence

There is a moderate inverse relationship between the level of presence of foreign capital and the share of non-performing loans in the banking system. Most of the countries of the post-Soviet region with low level of foreign banks influence have an NPL ratio of more than 10%, while this is an exception for countries with a high foreign share (mainly CEE and part of CCA).

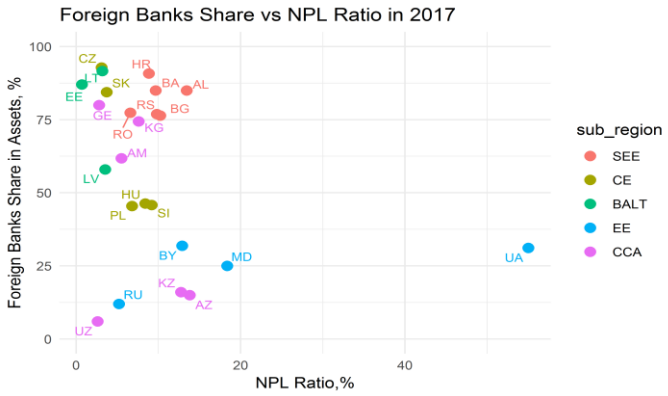


Figure 12: Foreign banks share vs NPL ratio in 2017(IMF,web sites of central banks)

Ukrainian case indicates possible manipulations with the assignment of de-facto problem loans to the NPLs, with their intentional reduction in order to minimize declared credit risk exposures and loan loss provisions. Taking this into account, for countries in the post-Soviet region with low standards of reporting, the actual inverse relationship between the studied indicators of NPL ratio and foreign bank presence may be stronger.

4.3.4. The role of foreign banks in access to credit and financial inclusion

The results of the study indicate that the activities of foreign banks have a positive effect on access to credit and financial inclusion, in particular, expressed by the traditional bank assets-GDP ratio. This confirms the findings of previous works, which link the highest level of financial sector development with easier access to external financial resources from parent company, Eurobonds issues and syndicated loans.

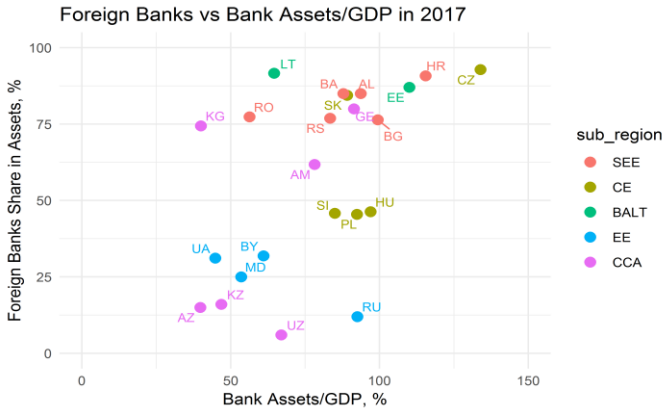


Figure 13: Foreign banks MkS in assets vs total bank assets/GDP in 2017 (IMF, CBs)

5. CONSLUSION

According to the results of the study, the apogee of the foreign capital expansion in countries with transitional economies was passedin 2008. After the global crisis, the previous trend changed to a tendency of the foreign banks market share reduction due to state-owned bank capital replacement.

On the other hand, some countries with initially low foreign presence, such as Slovenia or Serbia, have become some what more dependent on foreign banking capital. A higher level of operational efficiency, asset quality and availability of external sources of additional capitalization offoreign banks, combined with their higher share in assets, are translated into better aggregate financial sustainability indicators of the host banking systems. Post-Soviet countries with in sufficient levels of foreign capital during the study period more often had problems with state-owned and private local banks due to high volatility of profitability and increase in the toxicity of loan portfolios because of related-party lending. The results of these processes were trans formed into negative economic consequences due to the growth of moral hazard and violation of market discipline. At the same time, changes in the foreign banks share in assets and reformatting the ownership structure require increased attention to the compliance risks of foreign beneficiaries of the ever-growing financial institutions in transitional banking systems, as well as strengthening the ability of regulators to the consolidated supervision of cross-border financial groups.

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IS ALL THAT GLITTERS, GOLD? A BEHAVIORAL ASPECT OF CRYPTOCURRENCY MARKET

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ABSTRACT

Information Technology has emerged as an integral part of globalization, where it is not only used in e-commerce, e-business and R&D but is also a crucial part of complex data mining used in developing digital currencies and valuating them. These currencies have become popular in the last decade and people around the world have started investing in them, blindly. Even after having high volatility, decentralization and complexity in price determination using cryptograpgy, digital currency has been attracted by many investors who may be trapped by investor biases.. The current paper focuses on exploring the behavioral biases on investment decision making of digital currency/crypto currency by employing qualitative measures and interviewing Pakistani individuals who have purchased crypto currency. It is established from the results that due to complexity of price determination and profit attractiveness, investors become a victim of biases and heuristics when they are investing in digital currencies.

Keywords: *Digital Currency, Crypto Currency, Investment decisions, Investor biases, behavioral finance*

1. INTRODUCTION

Bitcoin is digit peer-to-peer currency that is traded on public exchanges which was first introduced in 2008. It can be easily transferred between people anywhere around the globe more quickly and at a far lower cost than traditional financial system without any financial institution intermediation. (Dibrova 2016). Digital currencies have no central authority and are decentralized systems which use cryptography to control the transactions by ensuring fraud prevention and are referred as cryptocurrencies. (Gandal 2014). The term cryptocurrencies is used for bitcoin and other similar digital currencies because the algorithm underlying in such currencies are related to digital cryptographic algorithms. Records of these currency trades are recorded on a publicly available data base known as block chain where each bitcoin has been assigned with an address and transaction involves trade of bitcoin from one address to the other one. There is no independent existence of bitcoin without block chain. In order to add new transactions miners solve a computational problem and they compete with one another to add next chain to the block chain. To add on recent transaction, transaction fees serves as an incentive for miners moreover, they also receive new bitcoins. Each increment of block chain includes information about new transactions and bitcoin received by miner. Bitcoin works on hash functions i.e. h= H(M) where hash function produces the hash value h by taking a message M of arbitrary length. This hash value is restricted to be equal to or less than some value which posed a difficulty in solving computational problem for miners as target of having an increment to block chain is 10 minutes and with increasing mining amount h value is reduced and difficulty is increased. (Dwyer 2015). In order to own or make a transaction in bitcoin, individuals are required to either run a program on their computers on which bitcoin protocol is implemented or they can create an account on a website which operates bitcoin client for users of digital currency. (Grinberg 2012). In order to keep track of their balances holders of bitcoins use wallets which is a spreadsheet program that keeps a track of balance, public key known as addresses and the private key. A specific address is associated to every bitcoin which is the public key in bitcoin transactions which keeps track of the balance held by a bitcoin holder.

In a bitcoin transaction recipient's public key is the address to which bitcoins are sent and private key is the sender's digital signature for encryption which is unencrypted using the sender's public key through which sender is verified and recipient's address is known. (Dwyer 2015). Reasons why digital currencies have become the center of interest include reduced transaction fees for online purchases i.e. through payment card networks which these currencies offer, secondly as compared to credit cards digital currencies guarantee more anonymity. Decentralized design of bitcoin and elimination of financial institutions intermediation protects against inflation as compared to traditional currencies which rely on financial institutions to regulate the circulation of money when needed. (Moore 2013) However, the complex issues in such currencies are on supply side i.e. how it is created? How much revenue the digital currency would generate and who will receive it? Such issues are resolved by Bitcoins through peer to peer network which operates through an open source software which is similar to a client server model in which server receives and responds to the requests from clients. It is arranged as a set of nodes into a self-organized connected network, where nodes act as both clients and servers. (Dwyer 2015). Overall algorithm of bitcoin protects against currency counterfeiting, however they are vulnerable to theft. Users of bitcoin hold private keys to their bitcoins and make transaction through wallets which can be stolen hence posing a risk to theft. (Gandal 2014). One hurdle which bitcoin is facing to become a popular medium of exchange is the difficulty of procuring new bitcoins. Beside successful bitcoin miners, a person must source bitcoin through online exchanges and dealers and such purchases require the buyer to make a bank transfer or link existing bank account to exchange which have low liquidity, bid-ask spreads and custody risk. Moreover, requirement of procuring good and services from a merchant before possessing bitcoins can't be bypassed as compared to the credit financing which is done mostly in retail markets where customers frequently buy with consumer credit financed by the merchant or a third-party credit card vendor, an option that is not available for bitcoin (Yermack 2015). Since these currencies are complex in nature, not everyone is ready to invest in them, unless people know who have invested and what are the gains/losses they have incurred. Many studies have found herding behavior while investing in crypto currencies, which is a reason why their price is so volatile. The current study attempts to investigate the role of herding in digital currencies by qualitatively exploring the behavior of Pakistani investors.

2. DATA

Data was collected through conducting interviews from buyers of crypto currencies. The most common crypto currency is Pakistan is Bitcoin, due to its anonymity, data collection was a challenge so sampling was based on convenience sampling. Initially one known investor was asked to give an interview and then other investors were reached through his contact. And on the basis of this a total of 15 individuals were reached out of which 7 interviews were taken in detail. All the interviews were taken separately to insure reliability in the data and especially since a comment of one could affect the answer of other, the discussion from one investor was kept highly confidential. Each interview last around 30 minutes. Investors were asked about the demographics, drivers of investment, types of investments they have done in their lives, their experiences on their investments and their style of investment. All the interviews were then transcribed and coded using NVivo. Nodes were created on the basis of the transcripts.

Figure following on the next page



Figure 1: Coding Scheme for analysis

3. ANALYSIS

The following sections were made after analyzing the transcripts to make a proper analysis of the behavioral aspect involved in investment decision making of Pakistani investors.

3.1. Risk Taking Attitude

Risk taking attitude of the investors was asked as it is the determinant of their willingness to take risk. It was observed that only 20% of the investors were risk takers and 80% investors showed risk averse attitude or they would prefer secure investments even if they are offered low returns.

3.2. Investment decision

People were asked about the types of investment they have made in their past. 2/3 rd of the total sample interviewed had invested in real estate. “I have invested in real estate as it is secure and more rewarding, I don’t believe in investing in stock market or any other commodity” (I2). Another interviewee said, “In Pakistan Real estate gives you good returns, so I buy plots and keep them for some time and then I sell them, I am usually able to make 25-30% profit out of it, and I am happy with it” (I5). Since this was regarding their past investments there was no investor who has purchased or invested in crypto currency before last 5 years.

3.3. Decision making criteria

What factors do investors take into account when making a decision regarding investment? This was asked to find out if there is an influence of what kind of investment is trending while they are making investment or do they do their own homework before making any decision. The response was varied many investors said they don’t follow a proper procedure other said they do.“Fist I save some money and out of my savings I have always kept a 50% investment ratio, so I invest 50% and keep the rest with me, after I have made an investment, the return I get from my investment I take 50% out and reinvest the rest 50%. I do ask my friends around and discuss new investment opportunities available with my colleagues too. But I always do my homework by asking around and reading about secure investments” (I7). “My investment decision works as a group, we are five friends and we pool in money and invest, I am not really good at the investment analysis so I blindly follow one of my friends who is very well informed and with him I have always gained on my investments, I don’t have so much time for the homework.”(I3). “Whenever I have to make an investment, I ask my colleague, he is a very reliable person, I usually invest where he invests and that way I am satisfied”(I1).

“My elder brother is investment geek, I seek his help” (I9). “I follow the trend, so whatever people are investing in these days, I will invest there, it has always helped me” (I12).
“I make my own decision, I don’t follow blindly” (I15).

3.4. Investment experience

Investors can have different investment experiences from what they expected. To know about their investment experiences they were asked questions related their previous experiences. It was observed that the experiences vary from one person to another and their satisfaction level also varied from one to another. Overall risk takers were observed to have less satisfaction levels as compared to risk averse individuals.

3.5. Knowledge about crypto currency

How investors got to know about the digital currencies available in market and their knowledge about how they work was asked and it was concluded that most of individuals got to know about digital currency from their family and friends living abroad. "A friend of mine in UK visited me 2 years back and he told me that he invests in bitcoins and from the return he has able to make, I was very impressed. That was the time I took all information from him and how do these work. I got to know that from the pooled in money, the miners invest that money into different global exchanges and the return then received is updated on daily basis"

3.6. Investment in crypto currency

Since in Pakistan the concept of investing in crypos is not very old so investors were asked about how have they decided to invest in crptos if they have ever invested in cryptos. The answers were more tilted towards theirs peers, coleagues, friends and family influencing them to invest. "When my friend asked me to invest, i asked hwo much have you gained from it and after knowing his rate of return, i decided to invest in it". "Cryptos are not very common in Pakistan, so there are usually people abroad who influence«.

3.7. Herding influence

If the individuals have made their investment by counting on their friends investment, they would intend to withraw if their influence withraws investment. So they were asked about their reaction, "In Pakistan very few people know about cryptos and we have a group, we pool in money together and similarly withraw together, and this pattern is followed majorly in this type of investment". "Yes i am very much influenced, whenever i know the price is dropping i fear people are withdrawing so whatever is gone is gone, i withraw my investment without taking a moment.«.

3.8. Overall experience

People had very varying opinions regarding it.

- "I enjoy it a lot watching prices go up and down"
- "I fear a lot it such a volatile currency, can give you shocks"
- "I have mixed opinions, it has given me good profits but i have incurred loses as well"
- "The worst part was i asked my inlaws to invest and when they invested, it dropped suddenly which was so embarassing"

4. CONSLUSION

This paper attempts to investigate the role of behavioral aspects of investors investing in digital currenices. Since they are very complex to understand and people are not well aware of them, what factors influence them to decide to invest in a market that is rare, volatile and complex was why this research was conducted.

It was observed that investors have a great influence from the people they know when are investing in a new choices (Vidal-Tomás, 2018) .The cultural factors are also important as Pakistan is a collective culture, people prefer to invest in groups and trust their family and friends. It was also seen that the over all experience of Paksitani investors in digital currency has been good and they are satisfied. In future more inidividuals can be interviewes with more detail in personality types and styles that make them go for risky investments.

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FACTORS AFFECTING AUDIT QUALITY IN CORPORATE SECTOR

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ABSTRACT

Taking into account the frequent changes in the global economic market conjuncture in recent years, it is worth paying particular attention to the factors preconditioning the effectiveness of audit procedures for the purpose of taking them into consideration when integrating audit into corporate practices. The article builds up its structure starting with conceptual substance and theoretical facets of corporate audit practice. The theoretical part puts up the conceptual basis of audit in the order of understandability. Definitions, tasks and functions that were introduced first are followed by conceptual differentiation of internal and external audit and their scope and purposes. With determination of auditor's competencies control over corporate activities, methods and means of applying those controls are explained after which factors of effectiveness of audit were revealed. Based on these factors the practical part interviewed the practitioners in the practice. The thesis aims to assess important factors that impact the audit quality through comparative analysis of regulatory requirements and industry practices prevalent in corporate audit. The thesis directly applies comparative analysis methodology to the case using auditing standards (US vs. Europe) from qualitative standpoint and does not occupy quantitative (regression or any statistical methods) approach due to the fact that factors affecting audit quality are analyzed and compared in the regulatory framework of existing auditing standards and confirmed through interviews with real practitioners, and then synthesized to build an evidence-based record of the suitability of the methodology used. In the end, the thesis makes grounded conclusions with respect to the aims and goals of the research in theoretical and practical dimensions.

Keywords: *auditing, assurance, qualitative audit, combined risk assessment, control environment*

1. INTRODUCTION

Frequent changes in the global economic market conjuncture, makes it worth paying particular attention to factors preconditioning the effectiveness of audit procedures when integrating audit into corporate practices. The thesis builds up its structure with conceptual substance of corporate audit practice. The theoretical part puts up the conceptual basis of audit in the order of understandability.

Definitions, tasks and functions that were introduced first are followed by conceptual differentiation of internal and external audit and their scope and purposes. With determination of auditor's competencies control over corporate activities, methods and means of applying those controls are explained after which factors of effectiveness of audit were revealed. Based on these factors the practical part interviewed many practitioners. The thesis aims to assess important factors that impact the audit quality through comparative analysis of regulatory requirements and industry practices prevalent in corporate audit. The thesis directly applies comparative analysis methodology to the case using auditing standards (US vs. Europe) from qualitative standpoint and does not occupy quantitative (regression or any statistical methods) approach due to the fact that factors affecting audit quality are analyzed and compared in the regulatory framework of existing auditing standards and confirmed through interviews with real practitioners, and then synthesized to build an evidence-based record of the suitability of the methodology used. In the end, the thesis makes grounded conclusions with respect to the aims and goals of the research in theoretical and practical dimensions. Based on the information processed for writing this thesis, comprehensive conclusions will be drawn, and recommendations will be provided to the investigated entity for improving its audit practices, and thus for achieving the overall higher results on its target market.

2. THEORETICAL PART - DEFINITION, FUNCTIONS AND TASKS OF AUDIT

The performance of audit procedures is a key task for any company to succeed on the market, as such procedures and their results largely predefine the interest of investors in providing the respective entity with funding. The materials taken for audit include all internal accounting and management documentation used by a company for running its activities, its organizational structure and the documental confirmation of the distribution of powers and liabilities within the entity, and the financial statements prepared by the company for public disclosure. Namely, among such financial statements, the most prominent role is played by the Balance Sheet disclosing the respective company's structure of assets, liabilities and equity, the Profit and Loss Account disclosing its income, expenses, and profit or loss in the reporting period, and the Cash Flow Statement showing the sources of formation of the entity's cash flows used for generating profits (Kimbell, 2002, pp. 9-11). The users of audit information can be divided into internal and external. Internal users are the respective company's managers and employees. For them, such information is indispensable for making grounded managerial and operating decisions, and thus for improving the company's performance in terms of the financial results achieved. External users include investors and the public authorities of countries. For investors, audit information allows understanding the respective company's actual financial condition, market positions, and the opportunities for the subsequent market development. For the public authorities, reliable financial data provided by companies are essential for evaluating the taxation base and monitoring the effective charging of taxes from the corporate sector, which is a key prerequisite foe ensuring high market competition (Kagermann, 2008, pp. 21-22). Taking into account the definition and purposes of audit, the following main functions of audit procedures can be pointed out:

1. Attest function. An audit project is aimed to provide a reasonable assurance about the fairness of financial statement, relevance and reliability of financial information, thus serves the attest function. Although the word "attest" is generally applicable to any audit work, it is specifically used for agreed-upon procedures (attesting on a specific line item, ex: inventories, A/R etc.) rather than full scope audit engagements in practice[1].
2. Control function. Audit is required for companies to effectively supervise[2] the use of their resources and a team of auditors, whether internal or external, and to compare the actual

[1] SSAE 10, 11, 12, 14; Attest Engagements AT Section 101, AICPA
[2] AICPA Generally Accepted Auditing Standards, SAS 77

outcomes of their business activities with their planned results and whether a discontinuity and going concern is probable. Namely, audit helps reveal where overspending of resources exist, and thus provides valuable information for the management of companies to track which business units or employees do not show the required level of effective performance.

3. Analytical function. Audit helps reveal the discrepancies existing between such planned and actual indicators, and find those fields where improvements could be made for improving the respective entity's financial indicators, and thus market positions. The analysis of the data provided by audit is helpful for understanding the current drawbacks in the respective company's activities, and thus for undertaking measures to eliminate them.
4. Consulting function. In addition to simply providing data which can help reveal the reserves for improving a company's market results, audit also performs the function of consulting, as auditors not only analyze the financial statements, but also provide their grounded conclusions to the reasons and outcomes of the lack of effective compliance with the internal corporate procedures and the legislation in force on the national and international levels.
5. Forecasting function. The data revealed in the course of audit help build grounded forecasts for the possible changes in the respective company's key market indicators in the near future. As a result, businesses get an opportunity to make amendments to their planned indicators, and the policies implemented on the market for reaching them (Pickett, 2006, pp. 14-19).

3. COMPETENCIES OF THE AUDITOR

For the purpose of effectively running audit checks, the respective auditors needs to have deep knowledge in this specific field, and have skills sufficient for effectively tracking, revealing and reporting the investigated drawbacks and advantages in the respective company's business activities. All such knowledge and skills together form the auditor's competencies. Overall, the competencies of all auditors, regardless of the country in which they perform their audit procedures, and regardless of the particular entity analyzed, can be grouped into the following:

1. Communication skills. Each auditor needs to easily contact other people. This is a key prerequisite for running effective audit checks, as in the course of such audits, the auditor has to communicate with those charged managers and employees and if needed with governance of the respective entity under independent audit. Without such communication, the auditor would be unable to get the full information required for drawing the conclusions in line with the aim of the audit, face scope limitation that may result in GAAS (generally accepted auditing standards) related qualified opinion if the limitation has material effect or even disclaimer of opinion if the limitation has very substantial effect on reasonably assuring the fairness of the statement as a whole. In such circumstances this would make such audit ineffective for the aim and goals pursued by the audited company's management (Phillips, 2009, pp. 11-12);
2. Organizational skills. The auditor needs to be able to effectively organize the work of the audit team, distribute the powers and responsibilities of all team members, set the goals to be reached, and assign particular tasks to all other persons involved in the audit. Also, the auditor is required to effectively use time management for fulfilling all the goals of the audit within the time frames set with that aim;
3. Professional skepticism. The auditor should be able to plan the audit and perform it with utmost professional skepticism. With professional skepticism the auditor recognizes that circumstances misstating financial statement may exist. For that auditors must be alert for any evidence that contradicts with audit evidence obtained, information that questions the reliability of documents prepared by client and responses to audit inquiries that was made by the auditor and any condition that may render possible fraud.

4. Ethical Requirements. The auditor must be independent in both, fact and appearance. In general ethical requirements include the rules stated in the code of professional conduct and the rules of applicable regulatory agencies together with other professional rules, usually those rules that are more restrictive prevail.
5. Professional judgment. Planning and performing the audit must be exercised with professional judgment. In audit engagements professional judgment is exercised when making decisions about audit risks, sufficiency of audit evidence obtained, materiality, the scope, nature, extent and timing of audit procedures.
6. Analytical skills. The auditor needs to be able to deeply analyze the information drawn from the audited entity's financial statements and accounting reports. For this purpose, he is required to investigate the core of the corporate processes, and to be able to establish the causal relationships in those processes[3]. Also, the auditor is required to apply his deductive thinking for drawing comprehensive conclusions on the analyzed subjects, and to develop practical recommendations to be implemented by the audited entity's management in the company's business practice. Without this ability, the auditor would be unable to draw valuable auditor's reports (Kagermann, 2008, pp. 53-56);
7. Conflict resolution skills. In the course of the audit, there may be different conflict situations due to the audited entity's management's or employees' will not to share the required data or information, or due to any possible misunderstandings whatsoever. The auditor needs to be able to avoid such situations or to effectively resolve them, as otherwise this may lead to the lack of common understanding between the auditor and the audited company, an thus to the lack of opportunity to fulfill the aim and goals of the audit. Conflict situations with respect to GAAS or GAAP related issues must be first communicated with company management and if no results are reached to solve such issues then the external auditor should choose to communicate with those charged with governance of the company being audited;
8. Stress resistance. The auditor needs to be able to effectively withstand all possible stresses along the phases of audit engagement. This is required in order to achieve the required results of the audit. Without being able to cope with all stresses, the auditor would be unable to reach the goals of the audit procedures (Gray, & Manson, 2008, pp. 17-19).

When effectively combining all those competencies, the auditor would be able to maximize the added value of the conclusions and recommendations drawn by him based on the results of the audit.

4. CONTROL OVER CORPORATE AUDIT ACTIVITIES

Control over corporate audit activities require risk assessment procedures to ensure that entity's objectives are achieved[4]. For that, the entity's risk assessment should involve the identification, analysis and management of business risks relevant to the fairness of financial statements that are prepared in accordance with generally accepted accounting principles. Corporate audit activities are also risk assessed through external and internal events that may negatively affect the entity to initiate, record, process and report financial information. One of the best ways to ensure that management directives are realized is to assess whether relevant control activities exist in the entity:

- Pre-numbering documents would assure that all transactions are recorded and no transaction is recorded more than once. This would also help assert that information about transactions is complete.

[3] Power, M. (1997). *The audit society*. Oxford [England]: Oxford University Press.
[4] Wilson, A. (2002). *The marketing audit handbook*. London: Kogan Page 2.

- Documentation would provide evidence and basis to record and execute transactions, also to check during retrospective controls of supporting documents[5].
- Transactions should also be authorized before resources are used.
- Conducting third party confirmations such as review of bank reconciliations, comparison of physical stock takes to perpetual inventory method and checking subsidiary accounts to control subsidiary records.

Besides the control activities stated above the auditor should also compare budgets to actual performance. Thus, the auditor with all the comprehensive control, review and analysis of corporate control environment often obtains knowledge about internal control and judges whether additional knowledge is needed for corporate control of internal activities. Let's now look at some examples of design deficiencies of internal controls that are prevalent in practice:

- Lack of needed controls over segregation of duties;
- Inadequate IT controls;
- Inefficient design of monitoring controls;
- Wrong documentation of internal control;

Examples of operational deficiencies of internal controls may be due to:

- Misrepresented information by client;
- Bias information (lack of objectiveness)
- Deviation of financial figures that are higher than expected by the auditor;

Thus, these deficiencies are key characteristics of inefficient internal control over financial reporting that the auditor whether internal or external must look for. After all, the internal auditor's objective is to make sure that internal control system is put in place and functions as needed, whereas external auditor's objective is to express an opinion on the effectiveness of the internal control. It is important to note that the communication of any type (oral or written) due to the weaknesses of internal control or deficiencies in the internal control system is treated differently around the globe. When compared to US Auditing Standards, ISAs (International Standards on Auditing) do not require certain written communication as part of control over corporate audit activities. They are given below as such: "In accordance with ISA 265[6] the auditor is not required to describe the definition of either significant or material weaknesses (International Federation of Accountants) during communication with those charged with governance." Thus, the American parent company may not realize that under ISAs the definition of deficiency and material weaknesses is not going to be communicated with those charged with governance. In another circumstance the parent may not pay attention to the fact that ISAs do not require an explicit explanation as to the fact that the auditor is not expressing an opinion on the effectiveness of internal control. Another factor strengthening the hypothesis 1 would be the omission of an explanation that auditor's consideration of internal control was not designed to determine all deficiencies in internal control and that might be significant weaknesses.

5. FACTORS PREDEFINING THE EFFECTIVENESS OF AUDIT

Effectiveness can be described as competence, set of procedures, supervision and execution of procedures and the quality of work done[7].

[5] Nick A. Dauber, Marc H. Levine. Wiley, The complete guide to auditing standards and other professional standards for accountants 2009, p.5

[6] International Standard on Auditing (ISA) 265, "Communicating Deficiencies in. Internal Control to Those Charged with Governance and Management"

[7] AICPA Generally Accepted Auditing Standards, AU Section 150

This practical understanding of the effectiveness cannot be measured unless the audit ends and it becomes clear that the audit was not an effective one. As a general rule the character of ineffectiveness is given to an audit if a material misstatement becomes undetected during the audit and detected after the audit ends. From this standpoint it would be more accurate to understand which mistakes and disarrangements (whether of audit processes or auditors) create ineffectiveness and how best to technically recognize effective approaches and processes. Effectiveness and efficiency are not always in positive relationship. It looks more complicated in practice because there might be circumstances where the auditing firm or an internal auditor (for internal audit) would need to examine more transactions to make sure that the practitioner meets professional responsibilities. An effective audit requires an auditor to:

1. Obtain the information and knowledge on client's business activities;
2. Develop the audit strategy - The auditor should always be ready to revise the audit strategy;
3. Develop the audit plan - The auditor should always be ready to revise the audit plan.[8]
4. Employ risk assessment procedures to understand the entity's environment and internal control.

Obtaining the information and knowledge on client's business activities suggests some factors that proactively affect the effectiveness of an audit. One of such factors stems from the lack of auditor's entity and industry knowledge[9]. The auditor should also understand the accounting methodology put in place of the entity. Understanding accounting methodologies used is another important factor in determining the effectiveness of an audit. The auditor would be required to understand how accounting information is gathered and processed, whether this process is outsourced to third parties or administered by the very company management. One of them could be considered as the scope factor of the audit contract[10]. Characteristics that form the scope of an audit include industry-specific reporting requirements, reporting framework and currency, the size and complexity of the audit, outsourcing of services for processing by service organizations and also the effect of information technology. Another factor that predefines the effectiveness could be related to the timing, objective and communications of the audit. For instance an audit report is not prepared timely and does not meet the deadlines for investors could be valued as ineffective. Other factors that predefine the effectiveness of the audit could relate to the audit plan[11]. Audit plan dive more into the audit procedures that help minimize material misstatements but also include procedures necessary to conduct internal control related tests (also known as tests of controls) and substantive procedures (also known as tests of details). An audit plan as a predefining factor of effectiveness must employ financial statement assertions when conducting tests of details and substantive procedures. If tests of internal control of the company is not enough for the effectiveness of the audit then, tests of details and substantive analytical procedures should be given priority in factoring out probabilities of material misstatements in transaction class or account balance levels. The thesis uses two hypotheses in determining factors affecting audit quality:

- Hypothesis one (H1) implies that external factors such as the particular business environment in which the audit procedures are implemented play a higher role for the overall effectiveness of such audit as compared with the internal factors. This section of the thesis demonstrated that business environment is an inherent category that requires both auditors, internal and external, to obtain the industry-specific understanding, regulatory rules and accounting practices of the audit work, thereby confirmed H1.

[8] Pickett, K. (2006). *Audit planning*. Hoboken, N.J.: Wiley. ISBN 9780471784319. 240.
[9] Patrick R. Delaney. Wiley CPA Exam Review 2010, Auditing and Attestation p. 91
[10] Henning Kagermann, William Kinney, Karlheinz Küting 2007. Internal Audit Handbook: Management with the SAP®-Audit Roadmap p. 189-192
[11] Kagermann, H. (2008). *Internal audit handbook*. Berlin: Springer

- Hypothesis two (H2) says that in current conditions of globalization, external factors play an ever-growing role in the scope to which they predetermine the success of audit, and those tendencies will be likely to further develop in the future.

It is important to bring attention to the fact that all the previous sections along with the outline of the thesis also provide that globalization and external factors play a prevailing role in the success of an audit or a successful audit, simply put. Yet, one should also note that today the global accounting practice is converging by putting identical principles in place for US GAAP and IFRS. Moreover, the conceptual framework, on the other hand, is generally coherent with some minor differences. For example, under US GAAP companies are not allowed to use conceptual framework for any accounting issues in case if there is a lack of an accounting standard or principle. Whereas, under IFRS companies can refer to the conceptual framework and apply it in the absence of a specific accounting standard. Apart from it, consequences of accounting scandals together with financial and economic crises of past decades enforced standard setters to put more strict acts and rules in place (ex: SOX, revised IAS, etc). These changes leave less room to cross-border investors and entities to bypass successful audit practices and partially weakens the postulate of the H2. Thus, the thesis generally agrees with H2 by only disapproving it to a minor extent.

6. PRACTICAL PART - INTERPRETATION OF RESULTS: FACTORS AFFECTING AUDIT QUALITY IN AUDIT FIRMS

The practical part of the thesis looked at types of audit engaged by audit firms and interviewed select directors of audit firms in EU to identify major factors affecting audit quality. One of the most frequently mentioned factor by directors was an audit that was performed in accordance with GAAS. The director said that if performed in accordance with GAAS a quality audit may have achieved regardless of the opinion produced. This is partly because GAAS includes all the qualitative factors as an authoritative source of law. For example, auditor's professional skepticism, its due diligence, independence, industry knowledge, proper and adequate training[12] that we mentioned in the theoretical part of the thesis (competencies of the auditor, control over corporate audit activities) are all included in GAAS. Another response by the director to the factors of audit quality was that a quality audit should be achieved with fairly stated financial statements in all material respects. The theoretical part of the thesis has numerously touched this opinion related aspect of a corporate audit. When responding to questions the director mentioned that the complexity of industry, its lack of internal environment is a major cause for quality distortion in audit engagements. Interviewed directors also brought a concensus that an audit should be well-planned. Directors mentioned the quality factor by emphasing competent and well-trained auditors. They said that the industry knowledge play an import role as a quality factor for successful audit. This emphasis is also confirmed in the theoretical part of the thesis. Wrapping up the types of factors affecting the audit quality in firms it was clarified through both, theoretical and practical, analysis that a quality audit is achieved by having competent auditors who can develop a strategy and plan of the audit, understand the scope (industry-specific reporting requirements, reporting framework and currency, the size and complexity of the audit), timing, objective and communications of the audit.

7. CONCLUSION

In theoretical part the thesis puts two hypotheses both of which generally agree with this the findings of the thesis only the second hypothesis has minor differences with the outcome of the thesis.

[12] AICPA Generally Accepted Auditing Standards, AU Section 150

Hypothesis one mentions that external factors such as the particular business environment in which the audit procedures are implemented play a higher role for the overall effectiveness of the audit compared to internal factors. Hypothesis two accents that in the current conditions of globalization, external factors play an ever-growing role in the scope to which they predetermine the success of audit, and those tendencies will be likely to further develop in the future. The findings of the thesis generally agrees with hypothesis two by only disapproving it to a minor extent due to the fact that accounting principles and conceptual framework have been converging and external factors are not the only ones for the success of the audit. The analysis and study of the audit work done by audit firms across helped identify major factors affecting audit quality in the firm and confirmed the importance of auditing standards and suitability of both hypotheses. Indeed, external factors directly affect the overall effectiveness of an audit and in the conditions of globalization it reasonably challenge the success of an audit. It was concluded through the interview with the director of the firm that if performed in accordance with GAAS a quality audit may have achieved regardless of the opinion produced. It was verified through practice partly because GAAS includes all the qualitative factors as an authoritative source of law. Examples of such characteristics that are covered by GAAS are auditor's professional skepticism, its due diligence, independence[13], industry knowledge and its proper and adequate training. Another practical finding is that if an audit engagement is conducted such that it fairly states financial statements in all material respects then the audit practice may consider that a quality audit is achieved. Responding to questions the director mentioned that the complexity of industry, the lack of internal environment in complex industries are major causes for quality distortion in audit engagements. A well-planned audit was mentioned as a true predefining factor of quality that affects the audit practice in audit firms. The theoretical part of the thesis has had the audit plan as a factor of quality as well. Finalizing the types of factors affecting the audit quality in audit firms it was identified that a quality audit is achieved by having competent auditors who can develop a strategy and plan of the audit, understand the scope (industry-specific reporting requirements, reporting framework and currency, the size and complexity of the audit), timing, objective and communications of the audit.

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SOCIAL BALANCE AS ONE OF THE KEY CHALLENGES ON THE WAY TO SUSTAINABLE DEVELOPMENT

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ABSTRACT

A whole range of socio-political conflicts and economic problems of modernity unfolds between such extremes as unequal access to resources and rewards, wealth and poverty. Excessive differences in financial means and vital opportunities have a direct negative impact on the development of human potential, initiating long-range requirements that set incentives and direction of economic development. The article discusses the role of the middle class as an active economic entity, which is an engine of economic growth, as well as a guarantee of the stability of the entire social system. The middle class acts as a motivation for the innovative development of modern society because it is the foundation and social base of civil society. The availability of a powerful middle class in the social hierarchy of modern societies is an important indicator of reducing inequality, increasing the level and quality of life, and ultimately sustainable development. The process of creation and development of the middle class is one of the basic social processes in transformational economies. That is why it is necessary to create a social structure within the limits of which people would be able to establish their abilities and develop them to the full extent in order to strengthen the position of the middle class. The basis of social policy for sustainable development implies a fundamentally new system of values. Under this policy, the state shall maintain a balance of interests between social groups, which in turn will ensure the balanced and sustainable development of the entire social system.

Keywords: *development, sustainability, inequality, social structure, human capital, middle class*

1. INTRODUCTION

The idea of progressive development of human society was dominant for quite a long historical period. Belief in endless social progress, as a movement towards perfection, has accompanied humanity for centuries, even when it was criticized. No doubt, that modern civilization has reached incredible heights in the development of machinery and technologies, the dreams of mankind began to be realized owing to scientific discoveries, new inventions, and organization of labor in all spheres of human activity. However, along with the benefits, this development has caused many complex and dangerous problems. Amidst all these achievements, today, diametrically opposite trends are observed in the world, such as environmental degradation, economic imbalance, increasing social polarization as well as the gap in living standards of people, poverty, racial and ethnic conflicts, political instability, etc. Under such conditions, it becomes unavoidably obvious that transition to a qualitatively new level of development, namely to sustainable development, ensuring a global balance between resolving social and economic problems and preserving the environment, is vital for modern civilization. The report of World Commission on Environment and Development "Our Common Future"(1987) defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"(United Nations,1987). It is a non-regressive type of evolution that reduces to an acceptable level any negative effects on an object with the purpose of preserving it, such as economic growth that does not cause environmental degradation while being accompanied by addressing the social problems, in particular, inequality and poverty.

Transition to sustainable development involves the creation of a balanced system that combines environmental safety, economic efficiency and social justice, preservation and gradual restoration of natural ecosystems up to a level that ensures environmental sustainability at which there appears to be a real possibility for the existence of future generations and for meeting their vital needs and interests.

2. INEQUALITY AS A THREAT TO THE SUSTAINABILITY

At Sustainable Development Summit (New York, Sept.25,2015) United Nations, 193 member states adopted the Sustainable Development Agenda till 2030, consisting of 17 Sustainable Development Goals (SDGs), which call for eradicating poverty, combating inequality and injustice as well as addressing climate change issues. Reducing inequality is one of the most important SDGs, as the inequality existing in the modern world in all of its forms, is an indicator of social regression, has become critical in recent decades and threatens overall global stability. In its turn, achieving sustainable development both globally and locally is impossible if people are deprived of the opportunities and conditions for building a better life. All the variety of forms of inequality can be observed in almost every particular society. This is quite natural considering that people differ in their individual capabilities, interests, life preferences, value-based orientations, etc. In every society, there are the poor and the rich, the learned and the unlearned, enterprising and unenterprising, high-powered and disempowered people. In this regard, R. Dahrendorf notes that: "Even in the affluent society, it remains, a stubborn and remarkable fact that men are unequally placed….Of course, such differences are no longer directly sustained by the force of legal sanction, which upholds the system of privilege in a caste or estate society. Nevertheless, our society - quite apart from the cruder gradations of property and income, prestige and power - is characterized by a multitude of differences of rank so subtle and yet so penetrating that one cannot but be skeptical of the claim one sometimes hears that a leveling process has caused all inequalities to disappear"(Dahrendorf, 1969,p.16). In the broadest strokes, inequality means that people live in conditions in which they have unequal access to limited resources of material and spiritual consumption, are at different levels of the vertical social hierarchy, and have unequal life opportunities. The problem of social inequality is a consequence of social and economic dissimilarity of labor, which is the reason for getting the power, prestige, and property by some people and the absence of these categories among representatives of other social groups. Affecting poverty reduction and depriving people of the feeling of satisfaction and self-sufficiency, inequality is often the cause of many problems in modern society. The problem of social inequality, its origin, attitude to it and ways of its elimination rings true through the present. It causes many questions such as: "Whether the inequality is an integral part of society's life?", "What impact it has on human development?", "Are there mechanisms for its eradication or at least smoothing?", "Is it possible to achieve social balance?".

2.1. Social stratification: main approaches to the definition

Crucial importance in formation of theoretical approaches to studying the essence, the form and the functions of social inequality is given to the classics of the world sociological theory K. Marx and M. Weber. Marx's concept of classes points to economic inequality, which is an objective factor of social structure. Class affiliation is defined not by people's vision of their social position, but by objective conditions allowing some groups to get preferential (compared to others) access to material benefits. According to Karl Marx, a class is a group of people with the same relation to the means of production by dint of which they ensure their existence. "Our epoch, the epoch of the bourgeoisie, possesses, however, this distinct feature: it has simplified class antagonisms.

Society as a whole is more and more splitting up into two great hostile camps, into two great classes directly facing each other — Bourgeoisie and Proletariat"(Marx, Engels, 2012, p.35). Thus in an industrial society, there are two main classes:

- Those who own the means of production - bourgeoisie
- Those earn a living by selling their own labor power - proletariat.

To Marx, the classes form and vie in virtue of different social positions and different roles of the individuals in the production structure of society. In turn, M. Weber has a bit different approach to this issue. Without denying Karl Marx's assertions about the connection of a class with objective economic conditions, Weber believes that such factors as power and prestige also influence the formation of a class. Consequently, there are three interacting factors at the heart of the hierarchical structure of any society - power, wealth and prestige. To Weber, the possession of power, that is the possibility of influencing others, permeates all spheres of social being. The differences in wealth forms economic classes, and the economic status, in its turn, makes it possible (or not possible) to dispose of goods and qualifications with the purpose of getting income within a particular economic system. Differences in relation to the power engender large groups of people, called parties, and prestige differences form groups of people depending on status (Weber, 1968,p.169-183). The sociologist P. Sorokin pointed out that the differentiation of some given throng of people into classes in their hierarchical rank, driven by uneven distribution of rights and privileges, responsibilities and duties, the presence or absence of power and influence, social values is embodied in the social stratification, which in its turn determines the presence of the higher and lower classes in society (Sorokin,1959,p.11). According to defenders of the functional approach in sociology (C. Davis, U. Moore), the distribution of individuals by social strata depends on the importance of their professional activities and the contribution they make with their labor in achieving the goals of society. Despite the diversity of existent various models of social stratification, the typology of classes proposed by L. Warner in the 40th years of XX century can be rightfully considered as a classic one. In the course of an empirical sociological study, Warner identified social classes based on people's subjective self-assessments regarding their social position by parameters like "occupation", "source of income", "house type", "dwelling area", "amount of income" and "education" (Warner, et al., 1949, pp.163-164). Each of the three classes marked by Warner (*upper, middle, and lower*) (Warner, et al., 1949, pp.35-37) then further subdivided into an "upper" and "lower" segment as follows:

- Upper-upper class. "Old money". People who have been born into and raised with wealth; mostly consists of old, noble, or prestigious families.
- Lower-upper class. "New money". Individuals who have become rich within their own lifetimes (entrepreneurs, movie stars, as well as some prominent professionals).
- Upper-middle class. High-salaried professionals (doctors, lawyers, higher rung (were in the corporate market, yet left for a reason such as family time) professors, corporate executives).
- Lower-middle class. Lower-paid professionals, but not manual laborers (police officers, non-management office workers, small business owners).
- Upper-lower class. Blue-collar workers and manual laborers. Also known as the "working class".
- Lower-lower class. The homeless and permanently unemployed, as well as the "working poor".

As can be seen from the above, Warner puts a completely different content into the concept of social class, stating that social class enters into almost every aspect of our lives and is an

important determinant of personality, skills, abilities, and intelligence and patterns of consumption. (Warner et al. 1949: 5-6)

3. WHY MIDDLE CLASS?

The practice of modern developed societies shows that there is one answer to the question "which social class is the driving force of the modernization of society, the key to its stability and sustainable development" – that is the middle class. And this is quite understandable, since bridging a gap between the stinking rich and the extremely poor and reducing the limits of social inequality is possible only if a strong, numerous middle class is formed in the social structure of society. As early as in the age of antiquity, the great Aristotle directly linked the stability of the state with the presence and predominance in it of the middle strata of society. In "Politics" he noted that "the best political community is formed by citizens of the middle class, and that those states are likely to be well-administered in which the middle class is large, and stronger if possible than both the other classes, or at any rate either singly; for the addition of middle class turns the scale, and prevents either of the extremes from being dominant" (Aristotle, 1999, p.96). In each particular society the middle class has its own specificity, but in various countries, the similar stratification criteria are used to measure it. It should be noted that these criteria are most peculiar to the social structure of a developed industrial society, and new ones related to other non-material values are still being tried out by social practice. To identify the middle class, L.Grigoriev and A. Salmina highlight the followings as the main criteria, which are presented in Figure 1.

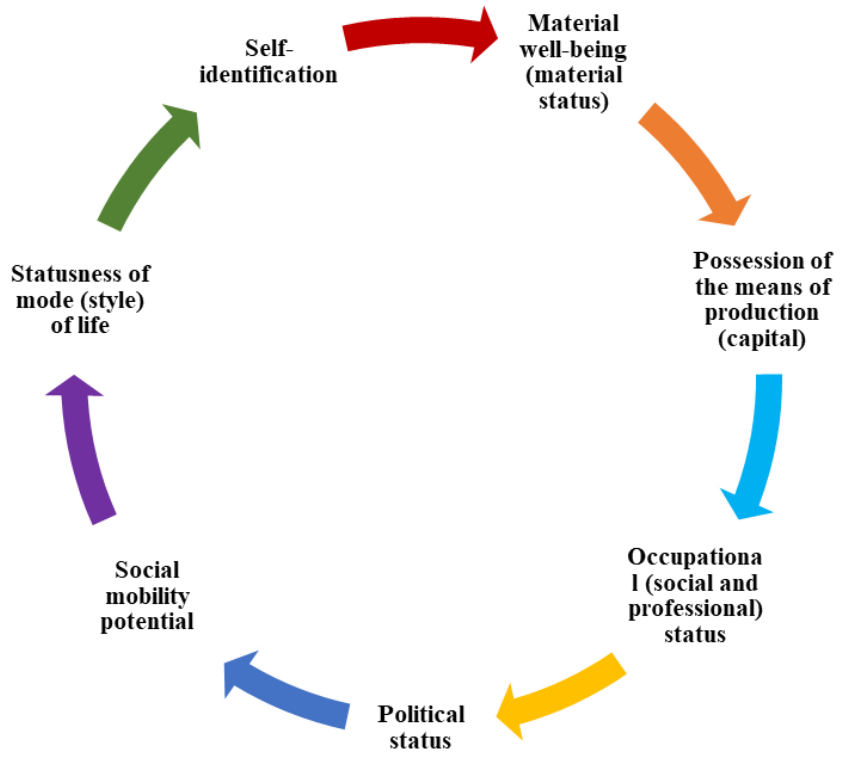


Figure 1: Criteria of identifying middle class (Grigoriev, Salmina, 2000, p.46-48)

Income is not the ultimate goal, but only a means for expanding people's opportunities in the field of economics, social activities, education, and health care, that is a means for achieving higher and more sustainable living standards. In this context, A. Marshall directly linked the accumulation of wealth with human development, synthesizing many ideas about the role of

man in the economy: “The production of wealth is but a means to the sustenance of man; to the satisfaction of his wants; and to the development of his activities, physical, mental, and moral. But the man himself is the chief means of the production of that wealth of which he is the ultimate aim”(Marshall,2009,p.144). Due to their vocational education and qualification, middle-class representatives occupy a position that provides great material and cultural advantages, allowing them to significantly improve the quality of life and provide access to a variety of benefits. It is representatives of this category of the population that form a request for modernization transformations on the one hand, and guarantee stability rejecting political violence on the other hand. It is quite obvious that the middle class, acting as an economically independent social subject is a foundation of both economic development and transition to an innovative development path.

3.1. Azerbaijan realities

Guarantee of dynamic social balance focused on the development of society and strengthening its stability and cohesion is a key task of the state. An important factor in addressing social problems, including fighting poverty and social inequality in the Republic of Azerbaijan, was state activity in the field of human development. The economic development of the country is a means of ensuring security and solving existing social problems. The development concept “Azerbaijan 2020: A Look into the Future” covers the main strategic goals of development policy in all spheres of the country's life, and it is currently being implemented through targeted state programs. One of the key issues of the Development Concept “Azerbaijan 2020: look into the Future”(2012) is the provision on the necessity to steadily expand the share of the middle class in the country and strengthen its role. Reports of international organizations suggest that in a relatively short period of independent development the Republic of Azerbaijan has achieved significant progress in this direction. Thus, according to the World Bank’s classification by total national income per capita, Azerbaijan has been included in the category of countries with “high average incomes” earlier than other CIS countries (Azerbaijan 2020: look into the future,2012). Along with this, according to the report of the United Nations Development Program (UNDP) on Human Development for 2010, Azerbaijan left the group of countries with “average human development” and entered the group of countries with “high human development”(Azerbaijan 2020: look into the future,2012). The social development policy, as part of the overall development strategy of the country, has ensured a significant improvement in the social indicators of Azerbaijan over the past fifteen years. In accordance with international standards, measure levels of inequality and the success of social policy is determined by special indicators, among which the Gini Coefficient and Quintile Index are the most common and widely used ones. In terms of the Gini coefficient and the Quintile coefficient, in recent years Azerbaijan has a head start on most of the G-20 and G-7 countries (Alakbarov,2018, pp.153-155). These indicators show that in the near future, the middle class in Azerbaijan has the prospect of expansion.

Figure following on the next page

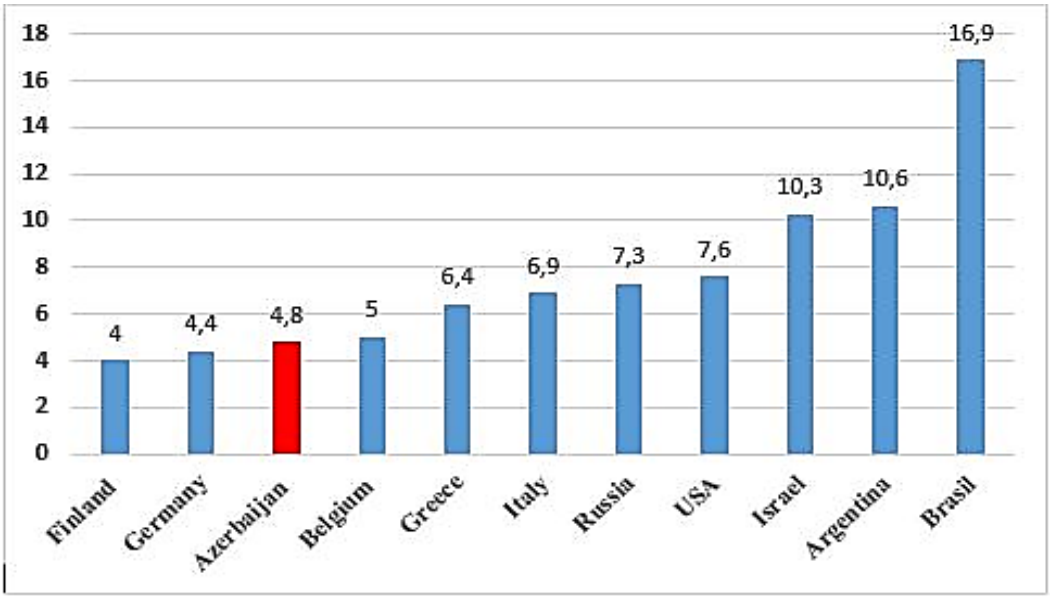


Figure 2: Analysis of social policy in the OECD countries and Azerbaijan Republic: Quintile ratio (HDR, 2016) (Alakbarov,2018,p.155).

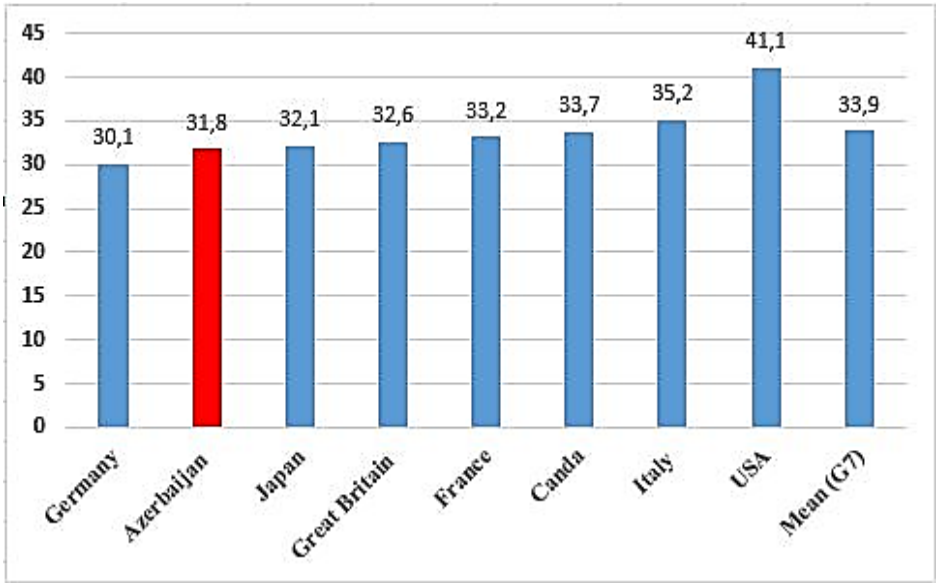


Figure 2: Analysis of social policy in the countries of G7 and Azerbaijan Republic: Gini index (HDR, 2016) (Alakbarov,2018,p.153).

4. CONSLUSION

As it is known, in developed countries, the driving force of democratic change is considered to be the middle class, which must fulfil three main socio-economic functions. Namely, to stabilize the society (ensuring equal opportunities for living for all), to be a source of purchasing power of the society, as well as a resource for employment (entrepreneurship). In the advanced countries of the world, the middle class is considered as the carrier of the main social processes. The experience of America and Europe shows that the formation of the middle class is not a matter of one decade. The further growth and development of the middle class directly depend on the level of development of the country's economy and the measures taken by the state since the implementation of large state projects and the modernization of society is impossible without the participation of a highly educated, qualified middle class. The expansion of this social stratum, of course, allows ensuring the social stability and is a symbol of overcoming a

number of deep-seated economic and social problems. A significant increase in the number of the middle class, accumulated in the framework of conscious state policy, can become the basis for a new turn towards the sustainable development of the country. Proof of this is a global experience because it is countries with a strong middle class that are more sustainable in political, economic, social and other aspects and have higher development potential.

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UNDERSTANDING ASPIRATIONS: R&D PROJECT EVALUATION BY KNOWLEDGE BASED SYSTEMS

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ABSTRACT
When an R&D project is launched, there are explicit and tacit aspirations as an attempt to achieve those results along which we evaluate the project as successful. Based on experience from previous projects, we can articulate all these aspirations with an extended vocabulary to present the expectations and intentions. This process can be supported by a Knowledge Engineer, who ensures the acquisition of all knowledge elements and who can help put them into the Knowledge Base of an Expert System. To reduce these attributes to the most informative ones, an AI-based Expert System can be used as a suitable tool, because when we have a few dozen cases in the domain, the result of case-based reasoning will show the most relevant aspirations. These expectations will describe both the limits and abilities of the project by which the decision maker can identify core competencies or even unsubstantiated dependencies on external resources. These insights can be key elements of strategic planning in the future. In this problem-solving process, we examine the question of which aspirations developers use in high-tech R&D projects, and the logical relationships between them. Since Popper's Tentative Solutions can be the adequate method for seeking answers in case of complex problems, we made semi-structured qualitative interviews with project managers and decision makers to build knowledge bases based on their experience and systematize their knowledge. The result of our research a) will show the set of those aspirations for which the same sensemaking will be given by different decision makers, and b) contributes a potential value to the validation of R&D projects.
Keywords: *R&D projects, decision support, project evaluation, Expert Systems*

1. INTRODUCTION

In this paper we would like to demonstrate the path to the results of an R&D laboratory as a potential source of innovation instead of giving a new interpretation of innovation, creativity or other difficult to define notions. Nevertheless, we think there is good sense in defining how to understand innovation from the point of view of our research. According to Drucker: "Innovation is the specific function of entrepreneurship, whether in an existing business, a public service institution, or a new venture started by a lone individual in the family kitchen. It is the means by which the entrepreneur either creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth." (Drucker, 2002) But in Christensen's studies there are two kinds of innovation (Christensen, 1997): sustaining

innovation which "targets demanding, high-end customers with better performance than what was previously available. Some sustaining innovations are the incremental year-by-year improvements that all good companies grind out. Other sustaining innovations are breakthrough, leapfrog-beyond-the-competition products. It doesn't matter how technologically difficult the innovation is, however: The established competitors almost always win the battles of sustaining technology" and disruptive innovation which leads to create new markets or value networks by eventually disrupting a current market and value network. As Christensen explains in Harvard Business Review: "Disruption" describes a process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses. Specifically, as incumbents focus on improving their products and services for their most demanding (and usually most profitable) customers, they exceed the needs of some segments and ignore the needs of others." (Christensen, 2015) A key point of comparing the two kinds of innovation is that, disruptive innovation does not care about existing competitors. In our research we investigate the results of sustaining innovative projects. But if we would like to understand the conceptual framework of these projects even we can borrow Prahalad's thought (Prahalad and Krishnan, 2008) "Successful innovations seamlessly connect concepts and ideas to their operational manifestations. We do not present a "charismatic leader" approach to innovation. Neither do we focus on big breakthroughs. We believe that the changing dynamic of markets driven by ubiquitous connectivity, technology, industry convergence (as in computing, communications, consumer electronics, and content), and consumer activism and involvement will create a need for continuous change—not just episodic big breakthroughs." But Peter Drucker, as one of the most influential authors of innovation, emphasizes with his approach when he says: "Most innovation, however, especially the successful ones, result from a conscious, purposeful search for innovation opportunities, which are found only in a few situations. Four such areas of opportunity exist within a company or industry: unexpected occurrences, incongruities, process needs, and industry and market changes." (Drucker, 2002). According to the explanation above, these R&D projects are the management of the manifestation of continuous change in turbulent times, and as such, it also means managing the unexpected. As Weick says in this regard: "If you want to manage the unexpected, you have to understand, first, how expectations work and, second, how to engage them mindfully….The basic argument is that expectations are built into organizational roles, routines, and strategies. These expectations create the orderliness and predictability that we count on when we organize. Expectations, however, are a mixed blessing because they create blind spots. Blind spots sometimes take the form of belated recognition of unexpected." (Weick, 2007) As these projects were semi-structured or ill-structured processes with regards to their problem definition, it was interesting to understand the expectations, and to examine the aspiration levels from the perspective of the participants. Aspiration level is one of the ways of looking at the optimal ambition problem if we accept that "Individuals and organizations form aspirations, goals, targets, or ambitions for achievement. These ambitions are usually assumed to be connected to outcomes in at least two ways: they affect search (either directly or through some variable like motivation) and thereby performance; they affect (jointly with performance) satisfaction" (March and Simon, 1958).

2. RESEARCH METHODOLOGY

Our research was based on evaluation of the results of closed R&D projects from a 'soft' aspect instead of detailed numerical data analysis, as it is discussed above, and we selected a tool which can handle the term of the experts. But a bit more precisely it was a Knowledge Engineering process supported by a Knowledge-Based System. "The term knowledge-based decision support refers to using software tools called knowledge-based systems (KBS), expert systems (ES), or knowledge-based expert systems – as they utilize knowledge bases and are

expected to perform at the level of a human expert." (Velencei et. al, 2014) During this process according to Chua (Chua et. al, 2012) "a knowledge engineer must represent acquired knowledge in such a way that a human can understand it and a computer system can process it." Therefore Knowledge Acquisition occurred while knowledge engineers attempt to acquire the project managers' explicit and tacit knowledge (Polanyi, 1958). In this research we use the Doctus Knowledge-Based System which is for systematizing prior knowledge and experience and it can transform them into symbols to develop models for different scenarios. This knowledge management software is advocated to be used for several different reasons such as a) it is able to ensure consistency of thinking by the "if…then" rules, b) it reinforces human knowledge with the method of machine learning, and c) it effectively performs deductive and inductive reasoning in one. Nevertheless, it is just a tool in the knowledge engineer's hand to support the process: "the Doctus KBS belongs to the area of symbolic systems, meaning that the knowledge representation it uses is based on symbolic logic in the form of "if… then" rules. A knowledge-based system, such as Doctus KBS, consists of two main parts: the software tool called the shell, which contains the inference engine but is empty in terms of the content and the knowledge base, which is the representation of the expert knowledge." (Velencei et. al, 2014) But as it published in a relevant study "knowledge representation is not simply a translation of acquired knowledge to a knowledge representation. Instead, it is an iterative process of selective querying of acquired knowledge, and continuous refinement of a model leveraging, not only on acquired knowledge from domain experts, but also from the knowledge engineer" (Chua et. al, 2012) Thereby, this IT tool is for systematizing prior knowledge and experience of the experts and it can transform them into symbols to develop models for different scenarios while two or more alternatives are compared based on rules or cases. Depending on base of the reasoning we can distinguish rule-based reasoning or case-based reasoning. In some previous studies, Doctus KBS was used for rule-based reasoning when there was a need for making a complex business decision (Tóth-Haász, 2017) or even reductive reasoning when informal learning was examined in an organizational environment (Velencei, et. al, 2014) Thus there is empirical evidence that KBSs can be appropriate tools to recognize and exploit common cognitive patterns by Knowledge Representation. In our research we built several knowledge-bases from the projects as cases and we tried to get findings in recognizing the most informative aspirations by case-based reasoning.

3. PROPOSITION

As defined by Hakim, our qualitative research provides the "'individuals' own accounts of their attitudes, motivations and behavior. It offers richly descriptive reports of individuals' perceptions, attitudes, beliefs, views and feelings, the meanings and interpretations given to events and things, as well as their behavior; displays how these are put together, more or less coherently and consciously, into frameworks which make sense of their experiences; and illuminates the motivations which connect attitudes and behavior, the discontinuities, or even contradictions between attitudes and behavior, or how conflicting attitudes and motivations are resolved in particular choices made." (Hakim, 1987) According to the classical distinctions of qualitative data collection methods – as observation, participant observation, interviewing, focus groups and case studies – our research is based on interviewing since these knowledge bases were built up with the help of project managers based on their experience by semi-structured, qualitative, in-depth individual interviews. This form ensures a greatly expanded process of data collection and the depth of gathered information "which encourages the interviewee to share rich descriptions of phenomena while leaving the interpretation or analysis to the investigators. The purpose of the qualitative research interview is to contribute to a body of knowledge that is conceptual and theoretical and is based on the meanings that life experiences hold for the interviewees" as it is published in the findings of a study (DiCicco-

Bloom & Crabtree, 2006). In these processes, in order to understand the conceptual framework, or, as we can say more easily, to see the big picture, the terms which are used should have the same connotation for us and for the decision makers. This part of the work was a very interesting fine tuning process, during which the system of expectations was refined step by step with each interview. As it was published in James March's very often cited book on organizational decision making, people can remember and recall colorful stories and information more easily than data of statistics. (March, 1991) Probably, this can explain the importance of story-telling and social narratives in complex decisions. Due to this our interviews were, actually, semi-directed story-telling about the projects through the same questions. These stories helped us understand those circumstances among which the projects and project managers exist and the mindset of the participants which determined their thinking. The first few narrated stories provided the initial set of attributes and related values and we tested them during each next occasion from the aspect of whether they are really familiar to the current interviewee. Nevertheless, we had to be careful because on the one hand we definitely wanted to avoid a situation where they start to use phrases which were told to them instead of their own ones, but on the other hand it was necessary to ensure that all of them keep the essence of the same terminology. This is a typical and crucial endeavor of the Knowledge Engineering process since Knowledge Acquisition (KA) is not about sharing ideas or conceptions of the gurus of the field (but undoubtedly, knowledge engineers need to know them to the right orientation during the process) and it should not be about the practitioner directly telling common sense, but it is about finding the most adequate system of the preference orderings the practitioner can think of. The proposed KA techniques were presented by Boose three decades ago (Boose, 1989). Wagner recently examined the trends of this long period (Wagner 2017) based on Boose's influential study in the field of KA and his findings meet with our approach concerning Knowledge Engineering and modeling. In accordance with the facts discussed above, there is a need for explicit and consistent relating of the preferences, as they get into the individuals' mindset in a distinct but complete form. After this a model is built based on collected data from the cases with the method of induction since the set of individual cases is used to find generalized logical rules. According to Popper's best known formula of problem solving, the sequence of events are as follows:

$$P \rightarrow TS \rightarrow EE \rightarrow P$$

where 'P' is for problem, 'TS' is for tentative solutions, 'EE' is for error-elimination. But this sequence is not a closed cycle because in the second stage, the problem is usually different from the previous (we can say that the problem has been shifted) since it is another situation which has emerged, partially as a consequence of the tentative solutions which have been tried out, and the error-elimination which regulates it. Therefore, the above schema has to be rewritten as follows:

$$P1 \rightarrow TS \rightarrow EE \rightarrow P2$$

This theory was published in Popper's work as: "the traditional philosophical problem of induction" (Popper, 1972). We determined aspiration levels for each step of the R&D project process and the responses, based on the interviews, were analyzed by KBS based on the ID3 machine learning algorithm. Several perspectives have been outlined in previous studies (Wagner, 2017)(Zaraté and Liu, 2016)(Hung et.al, 2008) about the advances and future applications of similar systems.

4. EMPIRICAL RESEARCH

Generally, the systematized evaluation of cases (or we can say that making a complex business decision in connection with them) requires the obtaining of at least 15-20 relevant criteria as a set of well-ordered preferences and at least 3-4 different values must be assigned to each. In a case where there are too few attributes in the knowledge-base, we cannot state that the system of expectations is sufficiently sophisticated, but at the same time there is a chance that the individual's cognitive biases can significantly impact the outcome of the process. As it is illustrated in Figure 1 in our research, 16 attributes were acquired in the end, some of them in connection with the human relationships within the projects, for example "Relationship between the project manager and customer", and others about general characteristics, like "aim of the project" for instance. We have to note that, no attributes are included among the expectations that could be derived from financial data. Only one value refers to any kind of financial information: first value of the (project) RESULT is "according to the agreement" which means that the project was closed in time with the expected income. This value is treated abstractly, without facts supported by specific financial statements, because we assume that an experienced project manager, like our interviewees, is able to estimate the success of the project without measurement, just based on the patterns of thoughts as cognitive schemata in their mind. So all these aspects are that kind of 'soft' information which can be acquired only from the project managers' mind but from nowhere else.

Name
RESULT
project manager's experience in coordination
project manager's character
project manager's experience in the domain/topic
constitution of the developer team
aim of the project
the team leader's relationship to the topic
the team leader's capacity
project manager - team leader communication
relationship between project manager and customer
customer
problem definition
source of the idea
prior knowledge
timeframe
project manager change

Figure 1: Attributes of the knowledge-base

But it was also interesting to observe the evolution of the final set of attributes, as some attributes have been removed from the knowledge base due to the fact that after a few interviews it turned out to be irrelevant to the evaluation, while others were inserted into it. For example, originally, there were two attributes as "Project manager's character" and another as the "Professional leader's relationship to topic". However, both of them had a little bit different values and meaning, and as it became clear that in most cases the professional leader and the project manager were the same person, the second attribute seemed unnecessary. As an opposite example, at the start "Project manager change" had not been among the criteria but during the second interview a detailed story was told about a completely transformed project during which the project manager was changed for certain reasons. At this point we had to insert this new attribute with three values, furthermore, the first attribute as (project) "RESULT" had to be added as new value as "Transformed".

This value is used for those projects that were prolonged by a legal act, or conditions of the related contract were significantly modified by the parties. However, this case is one of the authoritative and adequate examples of why the role of knowledge engineer is decisive and why it is important to be competent in the field in which the process is supported. The interviewee started the story of the project from the point of view that it was a failed project. But as the story began to unfold, it turned out that it just seemed to be his own personal perception, since the project was not realized as it had originally been planned: the scope was significantly changed, the time frame was extended to an indefinite duration and some key team members were changed including the project manager – but the parties of the contract (including the customer) have never declared it a failed project. The project manager's personal dissatisfaction caused his cognitive bias in the judgment of the result. Finally however, after we discussed the issue from a broader perspective, he accepted the opinion that it was a "transformed" project instead of a "failed" one. Each of the attributes has been assigned to 3 or 4 values, in one case to 5 values as it is illustrated in Figure 2. During the fine tuning process, some values had to be replaced because their original meaning proved too pejorative. For example, the first value of the "project manager's character" originally was "careerist" but it seemed too negative for the interviewees and they were reluctant to choose it, so later it was replaced with "career-driven" which has a bit more positive connotation, since it refers to someone who is very self-conscious in their career. Immediately after we replaced it some interviewees were open to choosing it.

Attributes | Cases | Rule Based Graph | Rules of prior knowledge | Case Based Graph

Name	Value 1	Value 2	Value 3	Value 4	Value 5
RESULT	according to the agreement	financially failed	over time	it did not even start	transformed
project manager's experience in coordination	beginner	advanced	master	nothing	
project manager's character	career driven	passionate	does the job	not in good mood	
project manager's experience in the domain/topic	beginner	intermediate	advanced	master	
constitution of the developer team	external workers	internal workers	both		
aim of the project	technological adaptation	development	testing	problem-solving	
the team leader's relationship to the topic	annoyance	accepted	enthusiastic		
the team leader's capacity	free	on average	overwhelmed		
project manager - team leader communication	convincing	senseless	irrelevant		
relationship between project manager and customer	frequent knowledge sharing	official	stormy		
customer	one	more	transferable anywhere		
problem definition	well-structured	semi-structured	pseudo	changed the scope	
source of the idea	manufacturing	developers of the customer	outsider	researcher	
prior knowledge	we have experience	we have knowledge but no experience	we know who to ask	there is no one to ask	
timeframe	irreal	fits to the resources	with resource expansion		
project manager was changed	no	after partial results	because of incompetence		

Figure 2: Attributes with their values

There were some particularly interesting values, for instance, values of "Prior knowledge" were articulated as "we have experience" which means that objectives of the project were known to the participants at the start and they just had to adapt to a new project. The second value was "We have knowledge but no experience" which means theoretical knowledge without practice and justification. The third one was "We know who to ask" which means only the knowledge of the problem space, it was that case when members of the project team knew who are the most influential researchers in the field, whose results or studies have to be read in order to solve the problem. And finally, a value was defined for a situation when there is no prior knowledge in fact as "there is no one to ask". After creating the initial attribute set and their values, the interviewees selected the relevant values for each project, if it was already there in the correct form. When we found that none of the available values were suitable for that particular situation, then we rearranged the current value set a bit to insert the new one. The outcome of this process resulted in the knowledge base from which the case-based reasoning will be started.

5. CONCLUSION

The goal of this paper is to lay out an approach to evaluate R&D projects in cases where lack of knowledge can lead to the emergence of a Knowledge Engineering process instead of analyzing financial results. Outcomes of this examination can be used as a promising starting point of future strategies in project planning and we assume that it will open the door for the use of Knowledge-Based Systems in project evaluation more widely. This approach can be used in any kind of project evaluation when knowledge management happens in a redefined complexity, or organizational learning and knowledge creation is required based on results and the experience of team members and project managers. Doctus KBS had been utilized to formalize this explicit and tacit knowledge, thus it may also be suitable to identify core competences of the R&D laboratory that need further examination, because, according to Prahalad and Hamel, these competencies fulfill three requirements: "(1) they provide potential access to a wide variety of markets; (2) they significantly contribute to the customer benefits of the end-product; and (3) they should be difficult for competitors to imitate." (Prahalad & Hamel, 1990). This paper describes partial results of an ongoing research project. In this phase we examined the question of how to build a consistent knowledge base from the 7 or 8 interviewees' mindsets, which finally will give the same sensemaking for all of them. Accomplishing this is a key point of knowledge creation because in reference to Weick's novel approach to redefinition of learning, "individual learning occurs when people give a different response to the same stimulus, but organizational learning occurs when groups of people give the same response to different stimuli" (Weick, 1991). Our first observation is that individuals can only think through certain concepts or terms if they understand them, or, we can say, when it became part of their personal knowledge. In a case where the words are put into their mouths and they just accept them without any real conviction, their personal knowledge growth is not ensured. During these interviews, the second finding was that each of the participants has their own stories with different issues and their used phrases were a bit diverse, but it could be definitely felt that they were socialized in the same terminology. The initial results can already be seen from these 16 element number samples, but in order to identify beyond doubt the most informative attribute which evidently influences the successfulness of the projects, at we need to at least double the number of evaluated projects in the knowledge base.

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ANALYSIS OF LOGISTICS SECTOR IN THE EUROPEAN UNION

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ABSTRACT
The logistics sector is one of the European Union's rapidly evolving sectors of the economy. Data of the period between 2011-2016, reveals that there is a 9% growth in the number of companies in the logistics sector with a turnover increase of 16.3%. The market structure consists mainly of micro-companies (the relative share of companies with 1-9 person is about 58-59%, and those with 2-9 persons employed- 31-32%), resulting in a total share of between 90 and 91%. Moreover, the overall share of the leading 5 countries (Germany, United Kingdom, France, Italy, and Spain) in gross value added in the sector is extremely high and reaches its peak in 2014-15 to 70.9%. The industrial dynamics in the sector are also examined through the difference between the share of entry and exit rates of the enterprises. For the first two years, this difference is negative; however, starting in 2014, we see positive increase, reaching its peak of 3.3% in 2016.
Keywords: *logistics sector, market structure, industrial dynamics, European Union*

1. INTRODUCTION

If a country's economy is looked at as a human organism, then its gross domestic product can be considered as the "heart", because any boost to the production, based on a previous period, causes growth in it. Logically, the logistics sector is the "blood circulatory system" as it connects all sectors of the economy, provides the necessary raw materials and allows for smooth operation. The purpose of this report is to reveal the main features of the logistics sector in the European Union. Particular attention will be paid to the market structure, growth, leading countries in the industry. Firm entry and exit are important to the functioning of every sector of the economy, including logistics. For this reason, we track the relative share of entering and exiting enterprises in the industry. The scope of the study includes the countries of the European Union for the period 2011-2016. The main source of information is the publications of the Statistical Office of the European Communities in sections: "Structural Business Statistics" and "business demography" where all data are broken down by activity according to the NACE classification.

2. METHODOLOGICAL ISSUES RELATED TO THE ANALYSIS OF THE LOGISTICS SECTOR

We will use the variables: turnover and turnover growth when examining trends and growth in the sector and its individual sub-sectors. First of all, turnover is defined as the sum of the remuneration for rendering services to customers and the sales of merchandise, and gross income from other activities. To determine the contribution of individual countries in the industry, we apply the value- added indicator, as a percent of total value added. Value added is figured as the sum of production value less the purchase of goods and services (for other goods and services than those purchased for a resale) and special public taxes, and corrected for changes in stocks of raw materials and consumer goods. To determine each country's contribution, we apply the "Value Added" indicator, as a percent of total value added in the industry. It is a popular indicator that is used in almost all studies of this type. There are several ways to analyze industrial dynamics. Standard variables used by Eurostat are as follows:

- A number of active enterprises, which is the number of registered legal or natural persons who have had turnover or employees, i.e. they were active during the reference year (t).

- Birth rates and death rates are calculated as a proportion of entries and exits of enterprises during the reference year to the mean number of active enterprises in the reference year (in percent). The difference between these two ratios (net entry rate) gives the real dynamics in enterprises population in a given year[1]. Market sum (churn) rates are defined as the sum of birth and death rates expressed as a percentage of the total number of active firms in industry[2].

In examining this problem, Haltiwanger et al. (Haltiwanger, J., Jarmin, Ron S. and Miranda, J., 2009, p.1). think that it is possible to measure: establishment openings and closings, firm startups, job creation and destruction by firm size, age, and industrial sectors. Doan et al. (Doan, T., Devine, H., Nunns, P., & Stevens, P. , 2012, p.12) believe that net entry rate declining during an economic crisis.

3. RESULTS

3.1. Analysis of growth and market structure in the logistics sector

The "Logistics sector" (as labelled in this study) has been classified into five sub-sectors: " NACE Division 49, Land transport and transport via pipelines", "NACE Division 50, Water transport", "NACE Division 51, Air transport", " NACE Division 52, Warehousing and support activities for transportation" and "NACE Division 53, Postal and courier activities.[3] The logistics industry has generated nearly 8% of total value in the non-financial business economy for the period 2011-2015 (see Figure 1).



Figure 1: Contributions of the logistics sector to total EU business economy, except financial and insurance activities, 2011-2015

This share remains relatively stable, as is confirmed by Satta et al., (Satta G., Parola F., Lee SW 2011, p. 9). Market structure of the logistics sector in the European Union is determined by the number and size of its companies, and its growth depends on the volume of sales made.

[1] Business demography in Europe, Enterprise publications. Observatory of European SMEs 2002/No 5. European Commission, 2002, p.14
[2] EUROPEAN SEMESTER THEMATIC FACTSHEET SERVICES, https://ec.europa.eu/info/sites/info/files/european-semester_thematic-factsheet_services_en.pdf
[3] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Transportation_and_storage_statistics_-_NACE_Rev._2

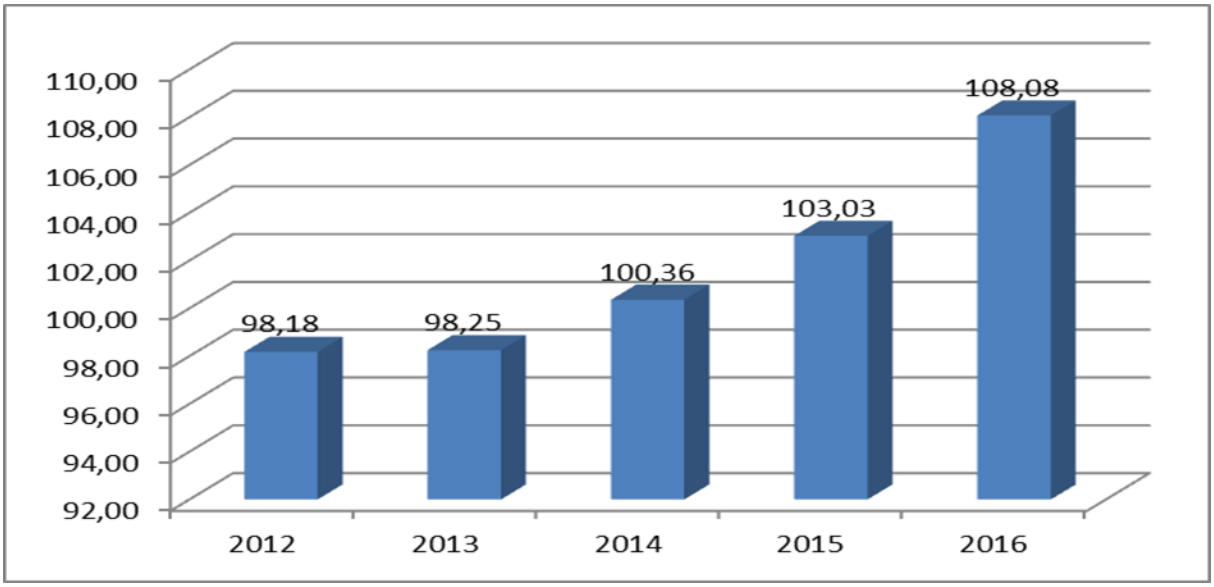


Figure 2: Growth in the number of enterprises in the sector compared to 2011

Logistics sector is one of the European Union's rapidly evolving sectors of the economy. The first two years of the analysis (Figure 2) show a nearly 2% drop in the number of enterprises in the industry. Since 2014 there has been a constant growth and for the whole period 2011-2016 there was an 8.1% growth in the number of companies in the sector. If we turn our attention to the distribution of logistics companies, based on their size (Table 1) we will find that about 91% of them are small enterprises of 1-9 employees. This trend is constant over the whole studied period (2012-2016). Companies with 50 or more employees are extremely rare and their relative share is within the range of 1.7-1.8%.

Table 1: The transportation and storage sector by employment size class, 2012-2016 (Source: Annual enterprise statistics by size class for special aggregates of activities[4] (NACE Rev. 2) and own calculations)

Enterprise size/ year	*2012*	*2013*	*2014*	*2015*	*2016*
From 0 to 9 persons employed	*90,7*	*90,7*	*90,8*	*90,6*	*90,7*
From 10 to 19 persons employed	*4,6*	*4,6*	*4,5*	*4,6*	*4,6*
From 20 to 49 persons employed	*3,0*	*3,0*	*2,9*	*3,0*	*3,0*
From 50 to 249 persons employed	*1,4*	*1,4*	*1,4*	*1,4*	*1,5*
250 persons employed or more	*0,3*	*0,3*	*0,3*	*0,3*	*0,3*

Figure following on the next page

[4] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sbs_sc_sca_r2&lang=en

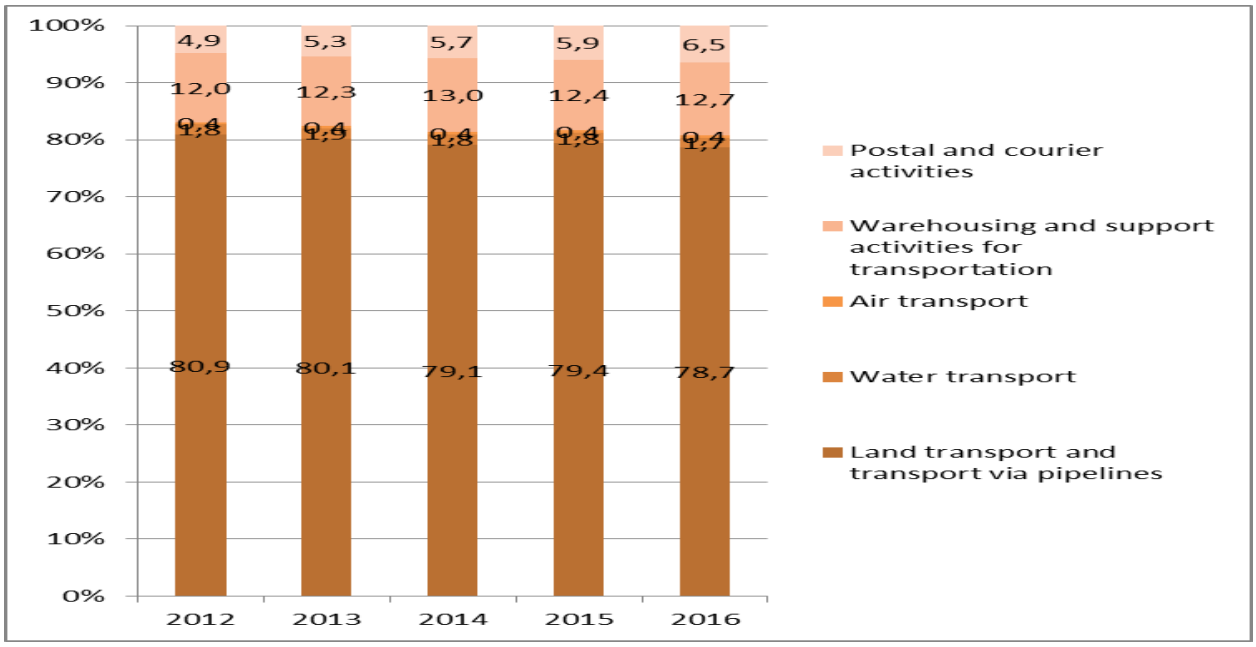


Figure 3: Share of enterprises by sub-sector, 2012-2016
(Source: Eurostat[5] and own calculations)

The highest share is that of enterprises (Figure 3) in the "Land transport and transport via pipelines" sub-sector, which in two consecutive years 2012-13, was over 80% and reached its lowest level - 78.7% in 2016. The total share of companies in the „Water and air transport" sub-sectors is within 2%. Overall, the market structure of the companies, by the type of their economic activity is stable. The only slight trend that can be observed is the slight growth of enterprises in the "Warehousing and support activities for transportation" and "Postal and Courier activities", respectively, with a growth of 0.7% and 1.6%, respectively.

Table 2: Turnover levels (in a million euro) and growth rates in EU logistics sector
(Source: Eurostat[6] and own calculations)

Subsectors		*2011*	*2016*	*Total growth (in %)*
EU-28		*1320000*	*1500000*	*+13,64*
Land transport and transport via pipelines		*500000*	*577000*	*+15,4*
Water transport"		*112313,3*	*111444*	*-0,1*
Air transport		*126807,6*	*145200,1*	*+15,2*
Warehousing and support activities for transportation		*460000*	*539683,7*	*+17,3*
Postal and courier activities.		*106812,1*	*126778,4*	*+18,7*
The best performing countries	*N1 Ireland*	*17749,5*	*25076,3*	*+41,3*
	N2 Romania	*11642,4*	*16181,7*	*+39*
The worst performing countries	*N1 Estonia*	*4727,8*	*4585,8*	*-3*
	N2 Sweden	*47762,8*	*47507,4*	*-0,5*

[5] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sbs_na_1a_se_r2&lang=en
[6] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sbs_na_1a_se_r2&lang=en

In all countries in the European Union, a decline in sales in their logistics sectors (Table 2) is observed only in Estonia and Sweden, by 3% and 0.5%, respectively. The overall growth in the sector is 13.64%, with Ireland and Romania being the most well-performing countries, with an increase of 41.3% and 39% over 5 years. The only exceptions are the companies in a sub-sector "Water transport", where turnover levels are stagnant. All other 4 sub-sectors recorded growth, the most notable being with the „Warehousing and support activities for transportation" and „Postal and courier activities" with 17.3% and 18.7% respectively.

3.2. Key players in the logistics sector of the European Union

Let me point out that the focus of this study will be given to individual countries and not to individual companies. Is the activity in the logistics sector controlled by several countries or distributed more evenly? To give a reasoned answer to this question, it is necessary to analyze the contribution of individual countries, for example with regard to gross value added (Figure 4).

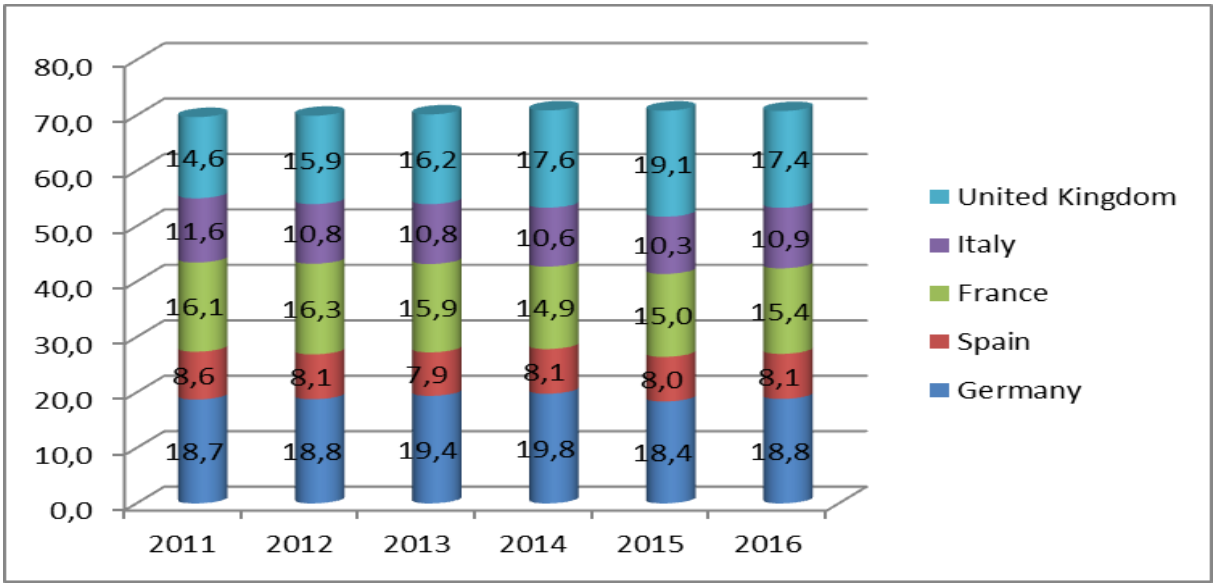


Figure 4: Share of five leading countries of gross value added, 2011-2016 (Source: Eurostat[7] and own calculations)

Germany occupies the first place in the ranking of contributions in the sector (Figure 4) with a share within 18,4-19.8%. The second and third places are reserved for the UK and France, which changed their positions in 2013. Obviously, the total share of the top 5 countries in the European Union is extremely high and reaching its peak of 70.9% in 2014-15.

3.3. General business dynamics in the logistics sector

One of the objectives of this study is to determine the birth and death rates of enterprises in the individual sub-sectors of the European Union's logistics sector for the period 2012-2016 and to establish their overall dynamics. These two indicators, which we mentioned, are one of the most important in measuring industrial dynamics. Such a methodology is also used in the business demography survey of Polish enterprises by Ptak-Chmielewska[8] (Ptak-Chmielewska, 2011, p.70).

[7] Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95)
[8] Ptak-Chmielewska, Aneta. "BUSINESS DEMOGRAPHY ISSUES AND EMPIRICAL RESEARCH ON DYNAMICS OF ENTERPRISES'POPULATION IN POLAND." ACTA SCIENTIARUM POLONORUM (2011): p. 69-81

Unfortunately, Eurostat does not have information on Cyprus and Malta for several years, and on Greece for 2 years, but considering their insignificant size, we believe that this will not affect our final conclusions.

Table 3: Firm birth/death rates as a percentage of active firms in the logistics sector in EU, 2012-2016 (Source: Eurostat[9] and own calculations)

	2012 birth/death rates	*2013 birth/death rates*	*2014 birth/death rates*	*2015 birth/death rates*	*2016 birth/death rates*	*Average 2012-2016*
Land transport and transport via pipelines	*9,7/10,4*	*10,1/10*	*11,8/9,3*	*13,2/10,7*	*12,6/8,8*	*11,5/9,8*
Water transport"	*9,1/9,8*	*8,8/8,9*	*9,6/10,4*	*9,4/9,3*	*9,5/10,6*	*9,3/9,8*
Air transport	*11,5/10*	*9,9/9,4*	*8,4/9,3*	*9,2/9,3*	*9,6/8,3*	*9,7/9,3*
Warehousing and support activities for transportation	*8,4/8,2*	*8,6/7,8*	*9,3/7,5*	*10,3/7,8*	*13,8/6,8*	*10,1/7,6*
Postal and courier activities.	*16,5/14,5*	*16,5/13,2*	*17,3/12,8*	*19,0/14,2*	*19,5/12,6*	*17,8/13,5*

Apparently, the highest average rate of entering enterprises is in the "Postal and courier activities" sub-sector. One of the probable reasons for this is the low barriers to entry into the industry. In 3 of the rest 4 sub-sectors, the average values vary within 9.7-11.5%. And conversely, the share of start-up enterprises in the "Water Transport sub-sector" is the lowest, with a mere 9.3%. The smallest percentage is that of enterprises leaving the market in the "Warehousing and support activities for transport" sub-sector, only 7.6%. In 3 of the rest 4 types of activities, we observe values between 9.3 and 9.8%. The Postal and courier activities sub-sector marks the highest rate of "leaving" enterprises averaging 13.5%. It is even better to use different derivatives of the above-mentioned two indices. According to some authors[10]"the sum (churn) of birth and death rates of enterprises, provides a measure of how frequently new firms are created and existing enterprises close down. The indicator reflects industry's degree of " creative destruction". Burke et al. (Burke, Andrew E., Holger Görg, and Aoife Hanley, 2005, p. 1) claim that „dynamic markets as markets where the rate of churn (firm entry plus exit) of firms is high and static markets are characterized by a low churn rate and where price competition is more important." In this way, the processes of industrial dynamics can be traced both by years and by sub-sectors. What basic conclusions can be drawn from this analysis (table 4)?

Table following on the next page

[9] Employer business demography by size class (from 2004 onwards, NACE Rev. 2)
[10] OECD (2017), Entrepreneurship at a Glance 2017, OECD Publishing, Paris, https://doi.org/10.1787/entrepreneur_aag-2017-en, p.84

Table 4: Firm birth/death rates as a sum (churn) and a difference in the logistics sector in EU, 2012-2016 (Source: own calculations)

	2012	2013	2014	2015	2016	Average 2012-2016 sum	Average 2012-2016 difference
Land transport and transport via pipelines	20,1	20,1	21,1	23,9	21,4	21,3	1,6
Water transport"	18,9	17,7	20	18,7	20,1	19,1	-0,5
Air transport	21,5	19,3	17,7	18,5	17,9	19,0	0,4
Warehousing and support activities for transportation	16,6	16,4	16,8	18,1	20,6	17,7	2,5
Postal and courier activities.	31	29,7	30,1	33,2	32,1	31,2	4,3
Average Birth and death rates sum (churn) for logistic sector	21,62	20,64	21,14	22,48	22,42	-	-
Average Birth and death rates difference for logistic sector	0,4	0,9	1,4	2,0	3,6	-	-

- First: We have a much more dynamic subsector than the rest in the face of "Postal and courier activities", where the average quantity of entry and exit companies is over 30% per year. For the remaining 4 sub-sectors, the rate of churn stays fairly constant at around 17,7 or 21,3 percent.
- Second: The rate of dynamics over the past two years has increased and while the sum in 2012 was 21.62% in 2015 and 2016 it reached 22.48% and 22.42%, respectively.
- Third: The logistics sector has become more and more attractive over the past two years, with the highest difference between entering and exiting enterprises was 3,6% in 2016.

4. CONCLUSION

The report summarizes some economic trends that affected the development of the EU logistics sector for the period 2011-2016. Of course, the topic is too broad and cannot be covered in detail within the limited volume given. A comparison between the cost-effectiveness of enterprises of varying sizes or of different sub-sectors would be of interest in future studies.
As a result, some important conclusions can be made:

- The average representative of an enterprise in the sector is a small company with 1-9 employees (91% probability). Large companies with over 50 staff are rare – less than 2%.
- European Union's logistics sector is dominated by several countries and the share of the top five in gross value added reached its peak of 70.9% in 2014-15.
- Despite the domination of the leading countries: Germany, Great Britain, and France, the threat to them comes from several rapidly growing logistics markets. Based on our analysis for the period 2011-2016, the highest growth is observed in Ireland, followed by Romania and Bulgaria. Therefore, Eastern Europe is becoming more and more important also as a location and thus has the greatest potential for logistics service providers.

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ASSESSMENT OF DISTRIBUTION OF EXAMINATION POINTS AND PASSING SCORES OF EXAMS OBTAINED IN THE ADMISSION TO HIGHER EDUCATION INSTITUTIONS IN AZERBAIJAN

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ABSTRACT

Based on the official data set of the State Examination Center of the Republic of Azerbaijan, authors analysed the normality of distribution of applicants' admission exam scores with the means of Pearson's chi-squared test (χ2). It was found that admission scores do not follow the normal distribution. Based on the dynamic series, the analysis was conducted, and average score attained by applicants, deviation from the average score (σ-standard error), as well as variation coefficient was calculated and level of homogeneity of attained scores were identified.
Keywords: *examination point, chi-square, distribution, normal, statistical analysis*

1. INTRODUCTION

Development of the non-oil sector is noted as one of the main objectives in "Azerbaijan 2020: Looking to the Future" development concept ("AZERBAIJAN 2020: LOOKING TO THE FUTURE" DEVELOPMENT CONCEPT, 29 December 2012, https://president.az/ files/ future_ en.pdf). Knowledge economy plays a big role in shaping the new economic system. Knowledge economy requires increasing the quality of science and education. Transition process from traditional economy to knowledge economy first originates in schools and for this transition it is imperative that admission to high education institutions is conducted in accordance with modern requirements. Since 1992, the State Examination Center of the Republic of Azerbaijan (formerly named State Student Admission Commission (SSAC)) (SEC) is enrolling students into higher education institutions. For example, in 2017 SEC carried out examination on 54 universities and 160 speciality. There were 43,000 planned places, of which 14,000 were in Group I, 12,500 were in Group II, 10,000 in Group III, 300 in IV Groups and 3200 in Group V. But the universities could not fullfil the plan. However, some of the private universities could fill only 11 percent of the plan.

In general, the admission plan for higher education institutions in Azerbaijan are rising year after year, but the number of applicants for admission declines sharply (https://azvision.az/news/119130/-ali-mekteblere-kecid-ballari-asagi-alinacak-ekspert.html). It should be noted that in previous years, the SEC decreased the pass score for a pre-determined competition because the applicants did not meet requirements of the contest conditions. Even though the transitional score was 250 in 2016, it was postponed to 150. (http://www.tqdk.gov.az/). Also, it is negative phenomenon that there are technical specialties among the vacant plan places. As you can see, there are certain problems in terms of the quality of teaching in secondary schools and planning abuturent admissions to higher schools. Research on these issues is scientifically relevant.

2. THE QUALITY OF EDUCATION AND ITS ROLE IN ECONOMIC GROWTH

The positive impact of increasing the quality of education on economic growth, science, social and cultural development is undeniable and there are quite a number of sources in this area. Prior to the 1990s, predominantly quantitative indicators of education were given preference for economic growth and human capital formation. From this point of view, the level of literacy of the population, the level of secondary education and, finally, the stages of education were considered. Data from this category are reflected in the statistical offices of many countries. Relevant information on Azerbaijan is provided on the official website of SSCRA (https://www.azstat.org/ [Retrieved Date 02.11.2018]), as well as in statistical journals published by the Committee (Education, Science and Culture in Azerbaijan. Statistical Yearbook, 2018, 2017, 2016, 2015). After the 1990s, quality indicators were also involved in the economic sciences. A review of quality factors affecting economic growth was given by Hanushek (2007). One of the important conclusions drawn from this review is that when a graduate of secondary school finishes high school grading, a standard deviation from the mathematics subject is higher than the national average, his annual income is 12% higher than the average. The quality factors affecting the economic growth should be specifically mentioned:

1. The median value in the admissions exams;
2. Capacity of the population to adopt new knowledge, technology and habits;
3. Computer and internet skills;
4. Foreign language skills.

It is obvious that among these factors foreign language skills play a key role in developing other factors. Another approach that can determine the quality of education in the country is to conduct international comparisons. For example, among the 15-year-olds there is a PISA competition (http: // www.oecd.org/pisa), held once every three years since 2000. Here, the knowledge, skills and habits of adolescents are checked in 3 ways: reading mastering, natural science and mathematics. Rating scopes are set up, allowing for international scores to be scored for each country in each of the three directions. This allow advanced countries in the field of education to be identified. Note that, according to the results of 2015, Singapore was the first in all three directions (http://www.oecd.org/pisa/PISA-2015-singapore.pdf). Its transformation “from third world to first” in one generation is one of Asia’s great success stories. Naturally, the best practice in international education should be the model for development. Science and education have an exceptional role in the development of the country's economy. Costs incurred to develop these areas are of great importance. In economically developed countries, the share of science in GDP is fairly high. For example, for OECD countries (Bulatov, 2017, p.266) the average value of this indicator is 1.92%. For neighboring Russia this figure is 1.1%, Kazakhstan - 0.68%. The share of education expenditures in GDP is 6.1% for the OECD countries in 2011 (Bulatov, 2017, p. 268), 5.1% for Japan, 7.6% for South Korea and 7.3% for Israel.

In Russia, the corresponding expenditure is 4.6% of GDP. For Azerbaijan this indicator was 2.46%. On the other hand, the share of higher education in GDP in 2014 was 1.6% for OECD countries, 2.8% for Canada, 2.7% for USA, 2.6% for South Korea, 1.9% for Finland, 1.3% for Germany and 1.4% for Russia. For Azerbaijan this indicator is 0.85% in 2017. (Explanation on the draft law of the Republic of Azerbaijan "On the 2017 State Budget of the Republic of Azerbaijan" (2017), p.20). One of the key elements in raising the positive impact of education on economic development is to improve the quality of secondary education. Based on the experience of developed countries in this regard, we can see that the high school duration, the average score collected in the final exams or in the admission exams and its standard departure (subject to the normal distribution law), high proportion of those studying in the specialty and the share of students enrolled in higher education are one of the main factors.

3. DATA BASE OF RESEARCH, ITS PROCESSING AND STATISTICAL ANALYSIS

Table 1 represents several indicators showing the student admission to high education institutions during 1996-2017 in Azerbaijan.

Table 1: Some statistical characteristics of students' scores collected in admission to universities in Azerbaijan in 1996-2017

	Azerbaijan section			Russian section			General					
Year	Math. Expac-tation	Stan. devi-ation	Num-.ber of Appli-cants	Math. Expac-tation	Stan. devi-ation	Num-ber of Appli-cants	Num-ber of Appli-cants	Math. Expacc tation	Stan. Devia-tion	Plan	Admission (in real numbers)	Diffe-rence
1996	159,21	113,50	36053	198,83	122,75	10806	46859	168,35	116,90	18941	12468	-6473
1997	152,86	113,34	38134	185,52	121,11	9972	48106	159,63	115,75	24975	15233	-9742
1998	145,39	116,66	45669	206,35	126,16	10303	55972	156,61	120,80	27586	21202	-6384
1999	170,65	120,75	53961	249,94	128,55	9719	63680	182,75	125,26	26156	20850	-5306
2000	162,74	127,71	66028	218,23	133,15	9215	75243	169,54	129,67	28251	19980	-8271
2001	208,14	145,29	72412	240,89	144,02	8786	81198	211,68	145,51	29306	22426	-6880
2002	158,37	130,56	43565	210,66	139,01	7056	50621	165,66	133,01	27577	18640	-8937
2003	169,19	138,09	65999	174,15	114,22	3452	69451	169,44	137,01	27462	24115	-3347
2004	170,59	143,25	81580	232,69	150,34	7963	89543	176,11	144,98	28475	24283	-4192
2005	181,74	146,76	89003	235,58	152,83	9185	98188	186,78	148,17	28785	27763	-1022
2006	182,01	152,16	93357	211,63	149,66	9839	103196	184,83	152,17	25629	23817	-1812
2007	183,76	148,62	93799	272,12	144,66	8620	102419	191,20	150,31	26729	25811	-918
2008	198,90	155,12	100165	255,03	149,79	10622	110787	204,28	155,50	28132	27515	-617
2009	175,38	147,29	97006	228,04	140,34	10341	107347	180,45	147,46	29030	28009	-1021
2010	181,21	150,26	98425	242,77	148,96	10104	108529	186,94	151,20	30510	28421	-2089
2011	180,75	152,69	93998	241,61	151,57	9187	103185	186,17	153,57	31365	29651	-1714
2012	172,72	151,67	87668	222,90	144,64	8803	96471	177,30	151,73	34098	32029	-2069
2013	175,27	158,30	88813	215,27	148,22	7907	96720	178,54	157,88	36537	33880	-2657
2014	175,49	160,85	84739	219,97	157,77	7904	92643	179,28	161,07	37841	33707	-4134
2015	198,14	167,07	76249	237,94	158,38	6677	82926	201,34	166,74	38914	31699	-7215
2016	211,92	168,67	72105	252,73	164,91	6440	78545	215,27	168,74	39039	33572	-5467
2017	237,28	171,13	64445	258,80	164,07	6351	70796	239,21	170,62	42669	35811	-6858

Source: Information from SEC, http://www.tqdk.gov.az/ and calculations of authors

Figure 1 is the graphical representation of the dynamics showed in the Table 1. Figure 1 shows the number of student applicants, average score in exam for high education institutions and standard deviation from average score.

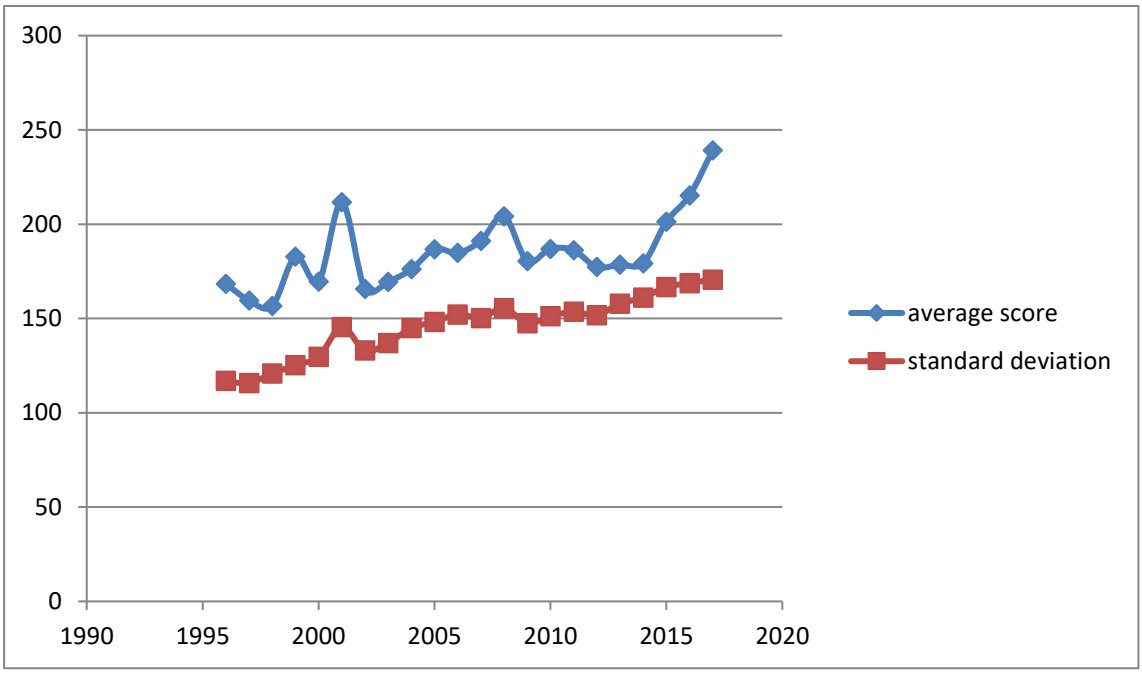


Figure 1: Graphical representation of number of student applicants, average score in exam for high education institutions and standard deviation from average score

As it is shown in Figure 1, the average admission exam score attained by applicants is higher than the standard deviation of average score, however the difference in between them is not significant. This can be considered as one of the signs of a sharp violation of the homogeneity of the level of education among applicants and secondary schools. Let's calculate the ratio of the standard deviation to the mean, that is, the coefficient of variation: (Hasanli Y, 2014, p. 69)

$$V = \frac{\sigma}{\bar{x}} * 100\% \qquad (1)$$

The lower the coefficient of variation is, the greater the homogeneity of the property value will be in the sample. At this time, the mean value becomes the typical property of the sample. The higher the coefficient of variation is, the greater the heterogeneity of the property value will be in the sample. The coefficient of variation shows change in the intensity of the property as well as the homogeneity of the sample. The higher V is, the higher the dispersion of the property around the mean value and the greater the heterogeneity will be in the sample. There is a scale of sample homogeneity depending on the value of the coefficient of variation.

Table 2: Levels of the coefficients of variation

V, in %	The level of sample
Up to 30 %	Homogeneous
30 %-60 %	Middle
60 % and more	Heterogeneous

Let us calculate the coefficients of variation on the basis of the data given in the Table1 (Table3).

Table 3: The dynamics of the coefficients of variation for 1996-2017 years

Years	Azerbaijan section	Russian section	General
1996	71.3	61.7	69.4
1997	74.1	65.3	72.5
1998	80.2	61.1	77.1
1999	70.8	51.4	68.5
2000	78.5	61.0	76.5
2001	69.8	59.8	68.7
2002	82.4	66.0	80.3
2003	81.6	65.6	80.9
2004	84.0	64.6	82.3
2005	80.8	64.9	79.3
2006	83.6	70.7	82.3
2007	80.9	53.2	78.6
2008	78.0	58.7	76.1
2009	84.0	61.5	81.7
2010	82.9	61.4	80.9
2011	84.5	62.7	82.5
2012	87.8	64.9	85.6
2013	90.3	68.9	88.4
2014	91.7	71.7	89.8
2015	84.3	66.6	82.8
2016	79.6	65.3	78.4
2017	72.1	63.4	71.3

The graphic image of the coefficients of variation given in the Table 3 is shown on the Figure 2. As we can see from the Figure 2, that the homogeneity of the level of education in the Azerbaijani and Russian sections of secondary schools differ sharply and is heterogeneous across the country (with the exception of the Russian section for several years).). The level of homogeneity of the coefficient of variation of education in the Russian section of secondary schools in 1999, 2001, 2007, 2008 was average. We should note that, this is due to the fact that the absolute majority of Russian schools are located in the capital of the state, Baku.

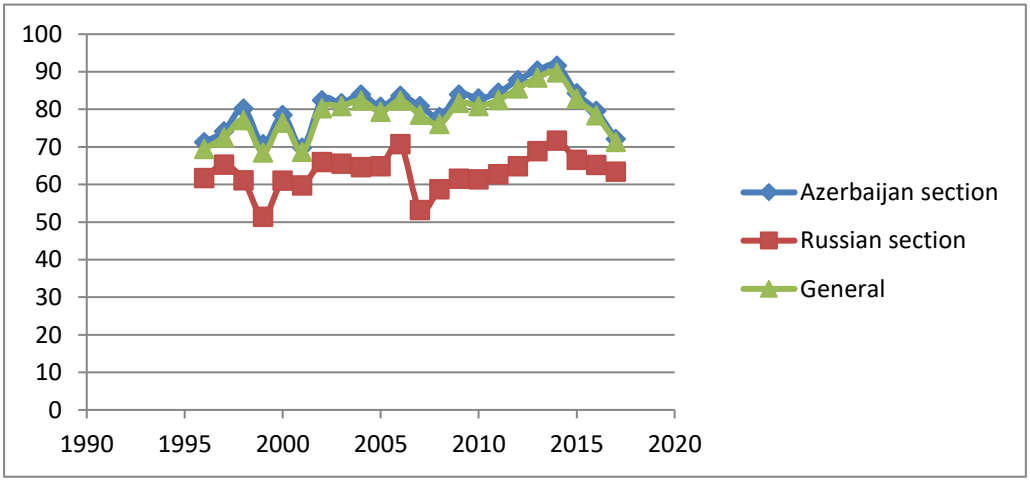


Figure 2: The graphic image of the coefficients of variation for 1996-2017 years

4. TESTING OF THE DISTRIBUTION OF ADMİSSİON SCORES TO UNIVERSITIES IN AZERBAIJAN

For example we will test the admission scores for the 2012/2013 academic year on the basis of official data of SEC, by Pearson's χ^2 criterion, to find out if the admission scores are distributed normally. For this we will make the table 4.

Table 4: Distribution of admission scores for 2012/2013 academic year

Score interval	Applicants' size	Cumu-lative sum	Empirical frequency	Theoretical frequency	EmpFre-TheorFre	(EmpFre-TheorFre)^2	(EmpFre-TheorFre)^2/ TheorFre
0-60	27692	27692	0,286	0,001	0,285	0,081	62,486
60-120	19595	47287	0,203	0,226	-0,023	0,001	0,002
120-180	12335	59622	0,128	0,159	-0,032	0,001	0,006
180-240	9281	68903	0,096	0,079	0,017	0,000	0,004
240-300	7436	76339	0,077	0,028	0,049	0,002	0,087
300-360	5747	82086	0,059	0,007	0,053	0,003	0,400
360-420	4727	86813	0,049	0,007	0,042	0,002	0,255
420-480	3569	90382	0,037	0,028	0,009	0,000	0,003
480-540	2713	93095	0,028	0,079	-0,051	0,003	0,033
540-600	2036	95131	0,021	0,159	-0,138	0,019	0,120
600-660	1266	96397	0,013	0,226	-0,213	0,045	0,200
660-700	323	96720	0,003	0,001	0,002	0,000	0,003
			1,00000	1,00000		***16,920***	***63,600***
Conclusion: The applicants' scores have not been normal distributed.						***Chi-square critical***	***Chy-square evaluated***

Source: Calculations of authors based on official SEC data

Based on the Stercens formula [2], the number of intervals is 1 + log2700 = 1 + 9,45 = 10,45. We took the number of intervals 12 and calculated the intervals by 60 points, dividing 0-700 points into equal portions. Note that theoretical frequency is based on standard regular distribution tables. Then k = n-1-r, with the criterion based on the Chi-square [2] criterion, alpha = 0.05 with n = 12, r = 2 (two parameters in normal distribution: mean and standard deviation) , and k=n-1-r=12-1-2=9. Therefore

$$\chi_{kritik}^{2}(0{,}05;9) = 16{,}92 \qquad (2)$$

$$\chi^{2}_{evaluated} = \sum((EmpiricalFrequancy - TheoreticalFrequancy)^{2} / TheoreticalFrequancy = 63{,}60 \qquad (3)$$

and because of the calculated value is larger than the critical value, the distribution is not subject to normal law. In other words, this differs from the normal distribution law described in Figure 3.

Figure following on the next page

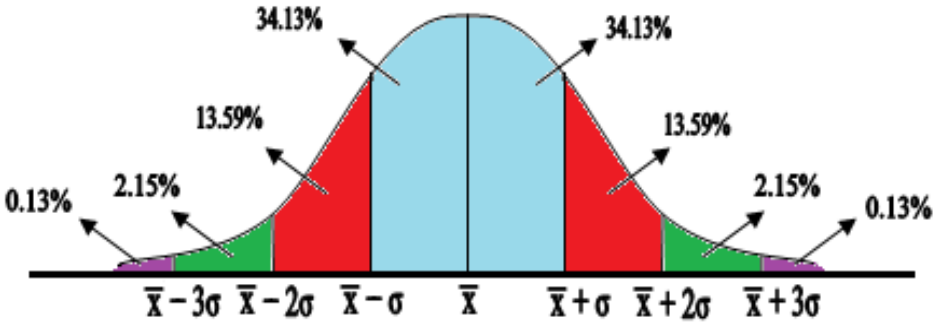


Figure 3: Curve of normal distribution. Three Sigma Rule

Empirical image of the distribution of admission scores for 2012/2013 academic year based on table 5 is given in Figure 4.

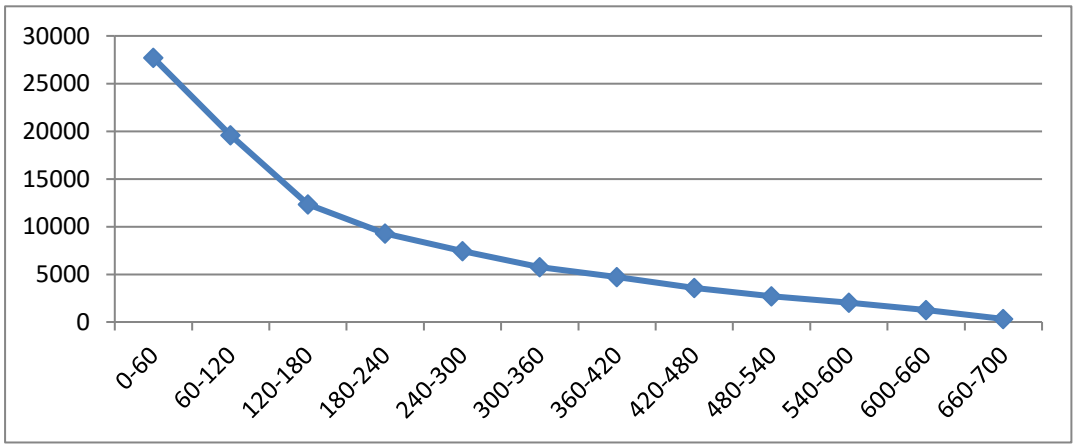


Figure 4: The distribution of the applicants by the admission scores intervals for 2012/2013 academic year. Here, on the abscissa, the intervals of admission scores and on the ordinate, the number of applicants are shown.

As we can see from the Figure 4, the empirical distribution of the admission scores to the universities, significantly differ from the normal distribution. One of the reasons of this phenomenon can be the heterogeneity of the quality of education at secondary schools.

5. RESULTS

Despite the fact that the average score gained by applicants in the entrance exams is more than the standard deviation, this difference is quite small. The value of the coefficient of variation showed that the homogeneity of the level of education in the Azerbaijani and Russian sections of secondary schools differ sharply and is heterogeneous across the country (with the exception of the Russian section for several years). The level of homogeneity of the coefficient of variation of education in the Russian section of secondary schools in 1999, 2001, 2007, 2008 was average. According to the official data of the SEC, distribution of the admission scores were tested by Pearson's χ^2 criterion and it was found out that admission scores were not distributed normally.

6. CONCLUSIONS

Heterogeneity of admission scores scored by applicant during entry exams can be explained by the fact that the quality of education differs sharply between schools or applicants.

The reason that the level of homogeneity of admission scores in the Russian section is relatively high and average in 1999, 2001, 2007 and 2008 is the fact that the absolute majority of Russian schools are located in the capital of the state, Baku. In other years, this level was heterogeneous. The reason of the fact that admission scores were not distributed normally as well as heterogeneity of admission scores can be explained by the strong difference in the level of education and knowledge of students.

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THE SLOVAK PUBLIC VERSUS ADVERTISING: A CASE STUDY

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ABSTRACT

This paper deals with the investigation of the Slovak public relation to the advertising of the consumer goods and services. Marketing research was realized via qualitative research method using structured questionnaire on the chosen sample of respondents by purposeful sampling (n=1067). We focused mainly on the public perception of the commercials, their intensity and necessity, preferred advertisement, consideration of the advertising, as well as the interest in commercials and the impact of the advertisement on the public behavior. In the first place, the evaluation of the qualitative research was realized by one-dimensional descriptive statistics what points at the frequency of the individual preferred opinions. Secondly, selected questions were evaluated by two-dimensional statistics to find some statistic relevant relations among qualitative characters using Pearson Chi-square test. The findings reveal that the advertising is necessary for the Slovak public, but its intensity is too high, which lead in some cases to public annoyance. The statistical relevant influence on the respondent's attitudes to the advertising had their status and education. Other conclusions are related to the public requirements on preferred characters for advertising to those mostly were matched attributes like truthful, modest, comprehensible, humorous and original.

Keywords: *advertising, inquiry, marketing, questionnaire, respondent*

1. INTRODUCTION

The advertising is for the enterprises still the most attractive and used form of communication with their customers. The companies are willing to invest considerable financial resources into its preparation, presentation or into the marketing research. The advertising effectiveness and efficiency are the main indicators tracked by marketing assessment of advertising (Mian et al. 2018; Chen and Waters, 2017). The advertising is the unthinkable part of the communication with the customers. However, approved marketing tools of communication as for instance television, print, radio etc. are gradually being more overshadow. This fact could be caused by overloading of the traditional communication channels by advertising. Customers still more prefer online communication as e-mails, social networks, software applications on mobile devices were tools like viral, online and mobile marketing are much more useful (Martins et al. 2019; Alalwan, 2018; Chang, Wang, 2019; Lin, Fu, 2018). On the other side, the importance of public relations starts to grow repeatedly due to interest of increase the companies' credit (Pressgrove et al. 2018). The number of advertising tools grow constantly and the marketers still look for new means of expression for the formulation of their advertising ideas. The range of these tools will spread and improve depending up the scientific-technical progress. Nevertheless, the ethics of advertising could restrict or exclude the use of some of them. (Prachár, 1993; Mpinganjira, Maduku, 2019). Since 2014, the investments for buying the

advertising space in media have been growing continual in Slovakia. The total investments for advertising achieved in average 366 million € in 2018. The growth of advertising was supported mainly by expenditures into the online marketing at the global level. However, the advertising also grew in the television broadcasting on the Slovak market. The television is still the powerful media with highest credit in Slovakia. Approximately 45% of the total investments for advertising are placed in the Slovak television[1]. The mobile providers put the most investments into the advertising of their campaigns focused on different telecommunication services. They are followed by providers of bank products, cars, drugs and retail channels. In Slovakia, the total share of digital advertising rised up to 32% including companies Facebook, Google, Search, Direct in 2018. The global average according the Zenith agency oscilated from 36% to 40%. The telecommunication, financial and motorsport companies invest the most in the internet advertising. The fourth place belongs to different services they include the advertisement on estate services, education or political advertising. The advertising of food products is on the fifth place. The legal regulation of the advertising did not exist in Slovakia by the year 1996. The advertising was included in several acts, namely in direct or indirect form, e.g. in the act about the radio and television broadcasting, press law, commercial code, civil code, but also in penal code. The acceptance of the act of advertisement No. 147/2001 body of laws did not mean the complex solution of the given problem in one law. The legal regulation of advertising stays henceforward wide-spectrum because it concerns as public law so civil law. The committee for advertising is responsible for the process of so called self-regulation in Slovakia. The main goal of this committee is to ensure and enforce the broadening of a fair, proper, decent, legal and truly advertising. Since 1995, the committee for advertising has been a member of EASA (The European Advertising Standards Alliance)[2]. In the same year, the committee published the document "Ethical principles of the advertising praxis in Slovakia" also called as "Advertising Codex". From the reason of very little scientific knowledge about the public opinion on ways of advertising in Slovakia, requirements on advertising features etc., the main goal of this marketing research is the assessment of public preferences on advertising.

2. METODOLOGY

The methods of qualitative statistics were used for examining the opinions of the chosen respondents on reviewing their relation to the advertising in the Slovak conditions (Wackerly et al., 2007; Yin, 2003). The structured questionnaire with closed questions and measure scales was used as a tool of the qualitative approach (Silverman, 1996). First, the questionnaire was tested by so called pre-test on the sample of 30 respondents to avoid the intelligibility of selected questions. After some corrections related to the pre-test, the questionnaire was adapted to electronic version via google docs. The respondents were obtained by purposeful sampling. The frequency of respondents' opinions on individual questions was first analyzed by one-dimensional statistical method. Subsequently, determined null hypothesis were tested using two-dimensional statistical methods as follows:

- Hypothesis 1 (H1): The assessment of the advertising does not hang on the culture of the public
- Hypothesis 2 (H2): Disposable income has not the impact on purchasing of goods or services forced by advertising
- Hypothesis 3 (H3): The realization of the purchases based on advertising does not depend on the culture of the public
- Hypothesis 4 (H4): Culture of public does not influence the trust in advertised data in media

[1] https://medialne.etrend.sk/marketing/rok-2018-z-pohladu-medialnych-agentur-aky-predpovedaju-vyvoj-na-trhu.html
[2] http://www.rpr.sk/en/about-rpr

Under the term "culture of the public" we understand the two social indicators as education and status (Cannon, 1982). The size of the respondents' sample was calculated according to the formula:

$$n \geq \frac{(z^2 \times p \times q)}{\Delta^2}$$

where:
n – minimum number of respondents, z - reliability coefficient by the value 1.96 at the probability of the 95.4 %, p and q - the percentages of respondents knowing and unknowing the topic which was set up on 50 % x 50 % what represents the highest rate of entropy, and Δ – the maximum admissible error set up on the 3 %. The size of selected sample by following the chosen values represents:

$$n \geq \frac{(1.96^2 \times 0.5 \times 0.5)}{0.03^2} \geq 1067\ respondents$$

Pearson Chi-square test (χ^2), or Cramer contingence coefficient (V) was used for testing the hypothesis which is the most suitable rate for the association between the two categorical variables and it reaches the values from 0 – non-relation to 1 – ideal relation (Rimarčík, 2007):

$$\chi^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i} = N \sum_{i=1}^{n} \frac{(O_i/N - p_i)^2}{p_i}$$

where: χ^2 - Pearson's cumulative test statistic, which asymptotically approaches a χ^2 distribution, *Oi* - the number of observations of type *i*, *N* - total number of observations, $E_i = Np_i$ - the expected (theoretical) count of type *i*, asserted by the null hypothesis that the fraction of type *i* in the population is p_i, *n* - the number of cells in the table

$$V = \sqrt{\frac{x^2/n}{min(R, C) - 1}}; whereby\ \chi^2 = \sum_{i=1}^{R} \sum_{j=1}^{C} \frac{\left(n_{ij} - E_{ij}\right)^2}{E_{ij}}\ and\ E_{ij} = \frac{n_i n_j}{n}$$

where: n – file size, R – number of rows (categories of row variable), C – number of columns (categories of column variable), n_{ij} – frequency in *i*-row and *j*-column, E_{ij} – expected frequency in *i*-row and *j*-column, n_i – sum of the frequencies in *i*-row, n_j – sum of the frequencies in *j*-column

The scale by Cohen (1988) was used for the interpretation of the contingence coefficient or correlation coefficient (Rimarčík, 2007): < 0.1 trivial, 0.1 – 0.29 small, 0.3 – 0.49 middle, 0.5 – 0.69 strong, 0.7 – 0.89 very strong and > 0.9 is almost ideal dependency. The confidential interval (CI) was calculated by chosen questions for the share of the qualitative character on the main file of characters for the binomial distribution following the formula (Šmelko, 1995):

$$95\%\ CI = w \pm 1.96 \sqrt{\frac{w(1-w)}{n}}$$

where:
w – value of the qualitative character, 1.96 – reliability coefficient for the probability of 95.4 %, n – file size.

3. RESULTS AND DISCUSSION

3.1. One-dimensional statistical results

Following the Figure 1, we can figure out that the most preferred medium by men part of the investigated public is the internet. Further, it is followed by newspapers and magazines. On the other side, television has the leading role by women perception with another communication tools like newspapers, internet and magazines with leaflets.

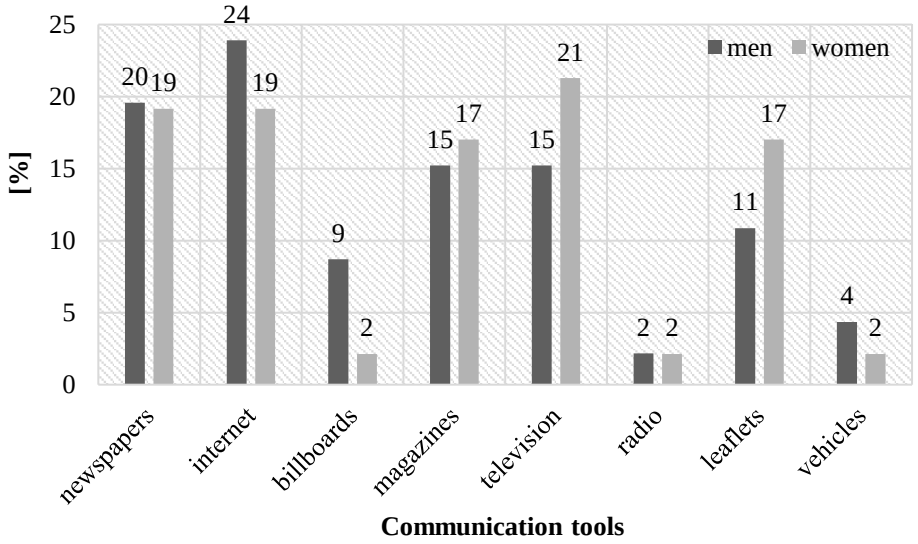


Figure 1: The overview of the preferred communication tools by public

The survey found out that on average (men and women opinions) 70 % of investigated public consider the intensity of the advertising for high and another 30% for middle intensive (Fig. 2). Everybody from asked respondents considered that advertising has not the low intensity in the wide scale of media. As we can see the men and women opinions are quite similar, however women are more sensitive on advertising intensity.

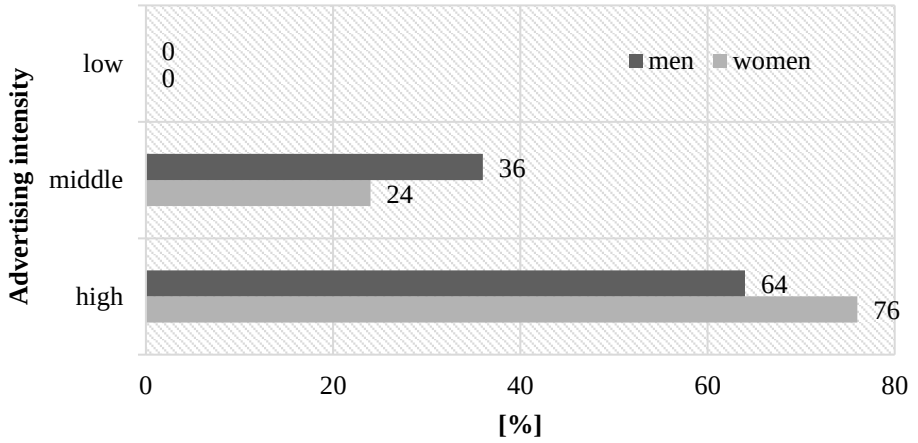


Figure 2: Advertising intensity in the media by public opinion

As a further remarkable result is to be release that 69 % of investigated respondents are annoyed by advertising in the media (Fig. 3) what is also proved by Bell and Buchner (2018). Only 31% expressed they stay not disturbed by advertising. As this question has binomial distribution (answers in form: yes or no) we calculated also the confidential interval for the share of the qualitative character on the main file of characters. At the probability of the 95% we can expect that 88% - 98% of public share will be annoyed by advertising in the media.

Figure 3: Binomial distribution of the public opinion on the annoyance by advertising

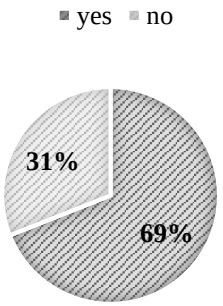
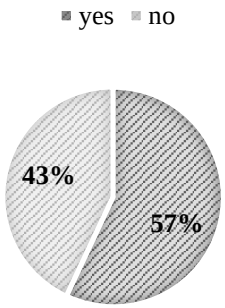


Figure 4: Binomial distribution of the public opinion on the trust to advertised data



By the following research we detected that 57% of the investigated public do believe in advertised data. However, almost another half of respondents distrust in such data (Fig. 4). Following the confidential interval for the share of the qualitative character we can expect with the 95% probability that 55.65% - 74.35% of public will still trust the advertised data in media.

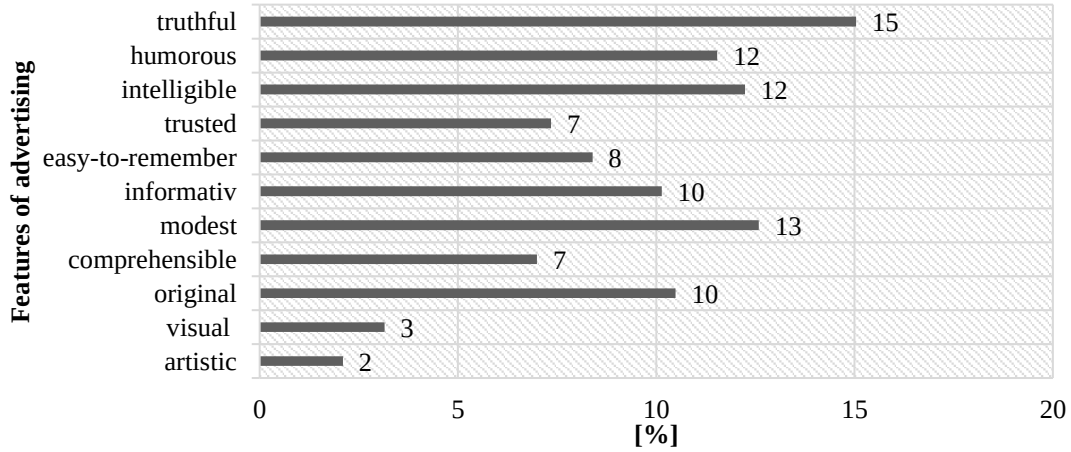


Figure 5: Required features for advertising by public

It emerges from presented results (Fig. 5) that the main required feature of advertising is truthfulness (15%). Further, the most essential features are modest, intelligible and humorous. On the other hand, the visual and artistic level of advertising are the least asked by the Slovak public.

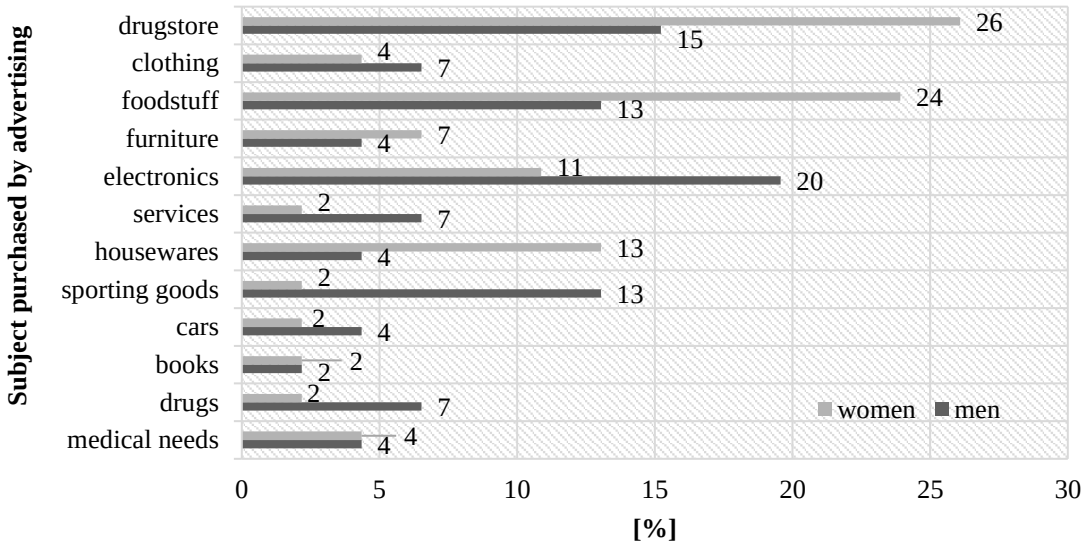


Figure 6: Assessment of goods and services purchased by their advertising

The most purchased subject forced by advertising is the drugstore (26%) by women and electronics (20%) by men (Fig. 6). Within the gender comparison, the biggest differences were detected by purchasing of electronics, sport goods, drugstore, foodstuff and housewares.

3.2. Two-dimensional statistical results

H1:

Testing the first hypothesis by p-value (chi-square statistic), where perception of the need for advertising depends not on a) public education, and b) public status, reached values a) 0.00011 < 0.05 and b) 0.03673 < 0.05. Therefore, the null hypothesis was rejected, and the alternative hypothesis can be accepted. The p-value was lower than defined significance level 0.05 in both cases. The obtained difference in the sample was statistically significant. We can state that the public perception of the need for advertising is derived from the public culture, thus a) education and b) status. Cramer contingence coefficient (V) gained the values a) 0.462233 defined by middle dependency between the public perception of the need for advertising and public education and b) 0.2964135 indicated the lower dependency the public perception of the need for advertising and public status.

H2:

By testing the second hypothesis we got the p-value of chi-square test 0.02643 < 0.05. Consequently, we can state that the null hypothesis can be rejected, and the alternative hypothesis accepted. Thus, disposable income has statistically significant impact on purchasing of goods or services forced by advertising. According to the Cramer contingence coefficient (V) with the value 0.4064694 and following the Cohen scale we can say that dependency between disposable income and on purchasing of goods or services forced by advertising is at the middle level.

H3:
Testing the third hypothesis by chi-square test the p-value reached 0.01287 (dependency of purchases from the education) and 0.00015 (dependency of purchases from the status). Hence, the p-value was lower than defined significance level 0.05 in both cases. We rejected the null hypothesis and accepted the alternative one which means that purchasing forced by advertising depends on the culture (education and status) of the public. The Cramer value of the contingence coefficient (V) by both statistical dependencies is middle (0.4410900 a 0.5063525).

H4:
The p-value of chi-square test between the public culture (education and status) and trust in advertised date in media reached a) 0.00023 and b) 0.00002. Both values are lower than defined significance level 0.05 which documents by both cases that public culture statistically significant influence their perception of trust in advertised date in media. Therefore, we rejected the null hypothesis and accepted the alternative one. Cramer contingence coefficient (V) by both statistical dependencies reached middle values 0.4404575 (education) and 0.4965473 (status).

4. CONSLUSION

The presented research revealed some statistically significant findings which are agreed with the global trends of requirements on the way of advertising the goods and services (Wu et al., 2016; Popa, Petrovici, 2014). The culture has the enormous influence on the perception of advertising goods and services by the Slovak public and its behavior. Under the term "culture" we understand the level of education and the social status (Cannon, 1982) as mentioned before. The investigated public is now tired from the amount of advertisement in the Slovak media. Therefore, the advertising producers must fix their effort more on the quality not the quantity of advertised data and listen more carefully feedback from the potential customers. Therefore, all these gained information should be considered by producers of advertising, in case they want to positive influence the purchasing manner of the Slovak public with emphasis on marketing and advertising ethics (Laczniak, Murphy, 2019; Higgins, 2008; Fisher 2007). It means that marketers are responsible for indicating truly information about the price, quality, and amount of advertised goods or services.

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PROBLEMS OF OPPORTUNISM OF FINANCIAL INTERMEDIARIES IN THE COUNTRIES WITH "TRANSITIVE" ECONOMY

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ABSTRACT

Opportunism, as a form of behavioral model, is inherent to all economic systems without exception. But, the fact remains undeniable that it is in countries with a "transitive" economy opportunistic behavior takes the most diverse forms and significantly affects economic trends in general. To the full extent manifestations of opportunism in "transitive" economies are related to financial intermediation. Moreover, the opportunistic model of strategic development in financial sector of "transitive" economy can be fully sufficiently, to spread over time to a large number of participants. Within this content, the issue arises regarding the possibilities of state influence on these processes. It is obvious that successful implementation of opportunistic strategies in the short term perspective has a positive effect on the effectiveness of financial intermediation. In this case, it is important to talk exclusively about increasing of economic benefits of final beneficiaries. On the other hand, a number of strategic problems arise, without the solution of which the further development of the financial sector is impossible. In the context of identified problems' solving, the state should pay attention to three aspects: firstly, the formation of institutional environment that will make opportunistic behavior economically unprofitable; secondly, increase financial literacy of financial services' consumers; thirdly, changing the format of competition in the financial sector, taking into account the maximum transparency of financial institutions.

Keywords: *economic opportunism, "transitive" economy, financial intermediation, financial sector*

1. INTRODUCTION

One of the key characteristics of modern economy is the galloping increase of quantitative indicators of the financial market. Not the last roles in these processes play financial intermediaries. Moreover, their economic potential for many years already significantly exceeds that of the real sector. Modern financial intermediation very quickly turned into a large-scale industry, within which millions of participants function. Each of them, from an individual (as a consumer of financial services) to a large institutional investor, has its own strategy of behavior. These strategies usually lead to the formation of numerous conflicts as at the level of "financial intermediaries - the rest of the financial market participants", and at the level of "financial intermediaries - the state". Obviously, the conflict of business strategies is an objective phenomenon that fully characterizes the complexity of the modern economy in general and financial markets in particular. But if a few decades ago, an approach based only on rational behavior of economic agents dominated in economics, then the possibility of irrational actions and opportunistic behavior is usually now analyzed. The problem of economic opportunism is characteristic for all sectors of economy, without exception, but it is particularly acute in the financial sector.

Not least, this is due to the nature of financial intermediaries, whose main activity is accumulation of savings and their subsequent investment (in fact, we are dealing with agency conflict). In addition, we must take into account the scale of the modern financial market. Thus, irrational business strategies and opportunism in financial sector priori pose a significant threat to many participants, both in the financial market and in real sector. In general, as will be shown below, opportunism can even threaten the existence of certain segments of the financial market. In countries with «transitive» economies, there are various restrictions (primarily institutional) that directly or indirectly stimulate rational behavior of financial intermediaries. In turn, in countries with "transitive" economies, the influence of institutional factors is not enough, which makes economic opportunism quite attractive. This situation significantly slows down the development of financial sector of countries with "transitive" economies, which makes it important to find ways of overcoming the problems associated with opportunism of financial intermediaries.

2. ECONOMIC OPPORTUNISM: CAUSES OF EMERGENCE AND PECULIARITIES OF MANIFESTATION IN THE FINANCIAL SECTOR

Despite of its relative "youth" (the first works can be attributed to the XX-th century), the analysis of opportunistic behavior as a direction of economic science already now has sufficiently reasoned methodology and significant results. But, as will be shown below, most scientists consider economic opportunism irrespective of specific sectors and spheres of economic activity. It is more about general provisions that do not take into account sector specifics and number of other factors. This fully applies to addressing the problems of opportunism in the financial sphere. As part of this work, we consider the most reasoned approaches to the substantive characteristics of opportunism and extrapolate them further to the activities of financial intermediaries. Among modern scientists, the founder of this trend is O. Williamson, who described opportunism as "... pursuit of one's own interest, reaching for treachery" (Williamson, 1985). This rather simple at first glance conclusion is strikingly different from those prerequisites that dominated in many theories - economic agents fulfill their obligations because another model of behavior is not capable to increase their well-being. Let us point out one more important note: most types of opportunistic behavior are based on information asymmetry. That is, under conditions of even distribution of information, the prerequisites for opportunism, if not disappear at all, their destructive influence will decrease significantly. These processes are analyzed in the work of J. Akerlof (Akerlof, 1970). In his approach, opportunism increases the possibility of "unfavorable" choice, the "good" goods are being forced out by "bad" ones, and in the end even the disappearance of individual markets is possible. In turn, P. Milgrom and J. Roberts describe opportunistic behavior as egoistic behavior, which is not constrained by moral reasoning (Milgrom, Roberts, 2001). At first glance, this approach to the characterization of opportunism is difficult to apply to economic activity. But actually it is not. One should not forget that in every society various traditions, stereotypes, etc. are historically shaped in behavior. It is quite clear that all of them can and do influence the economic activities of individuals, corporations, and, finally, the state. Thus, it should be recognized that evaluation of such influence is extremely difficult task, but it is wrong to deny its existence. Economic opportunism is most often viewed in the context of employment relationship between employer and employee/manager (Biliak, 2013), as well as through the prism of the principal-agent relationship (Nelson, 1981). Obviously, the first and the second aspect of opportunistic behavior can be analyzed from the point of the organization, including the financial corporation. In the first case, we are talking about the employee's failure to comply with the terms of the contract using various methods. The second is about the possibility of top managers to make decisions aimed at increasing their own well-being, rather than economic benefits for the owners of the company.

In any of these options there are significant difficulties in exercising control over the actions of employees and managers. Some papers emphasize that "... necessary condition for considering certain behavior as opportunistic is the redistribution of wealth" (Odintsova, 2008). Summarizing the interim results of theoretical statements' analysis concerning economic opportunism, we present the most common prerequisites for its emergence: the presence of "contractual" holes; difference in the economic interests of the contract parties; information asymmetry; market uncertainty; specific nature of the assets at the disposal of the contract parties. It is clear that these are the most significant influencing factors that lead to opportunism, but not all. Since the forms of manifestation of opportunistic behavior are also very variable. At the same time, opportunism can exist in both explicit and latent forms, which only complicates the problems of its evaluation. As already mentioned, opportunism, as a form of economic behavior, is also characteristic for financial intermediaries. In our opinion, the forms of manifestation of opportunism depend on the level of relations between the financial institution and other economic agents. The most obviously economic opportunism is manifested in the relations of financial intermediaries with: consumers of financial services, other financial intermediaries, with employees, with managers, with various counterparties. The importance of the issue of economic opportunism of financial intermediaries is determined by their place in modern economy. Opportunism in financial sector accumulates additional risks for the entire economy, creates significant threats from the point of view of prospects for economic growth and prosperity. Arguments listed above make it possible to conclude that the objective nature of opportunism in the financial sector is more likely to indicate the need to use a whole range of measures aimed at eliminating its causes and consequences. At the same time, one cannot deny that solution to the problem of opportunism of financial intermediaries largely depends on the "maturity" of the financial market.

3. PROBLEMS OF OPPORTUNISM OF FINANCIAL INTERMEDIARIES IN THE COUNTRIES WITH "TRANSITIVE" ECONOMY

It is obvious that the most acute problems of opportunistic behavior of financial intermediaries are manifested at the markets of countries with "transitive" economy. The financial sector of the post-soviet countries is no exception. For the further analysis, we used data from the Ukrainian financial market, but we can safely say that the trends and examples described below are typical for other markets with similar characteristics. In general, it is worth noting significant progress in certain segments of financial market of Ukraine, incl. - for financial intermediaries. But this growth is noticeable if we compare the current state of Ukrainian financial sector with data of the beginning of 2000. In comparison with other markets and in assessments of potential growth (at the time of independence), the indicators look rather modest. The key unresolved issues for Ukraine's financial sector are:

1. A significant bias towards banks, as key financial intermediaries (bank assets account for about 90% of the assets of all Ukrainian financial institutions).
2. The actual absence of specialized services market in the sphere of non-state pension provision. For example, pension contributions of individuals to non-state pension funds amount to only 5.5 million dollars. USA.
3. Difficulties in the interaction of non-bank financial institutions with individuals as consumers of financial services. Neither life insurance companies, nor investment funds, nor credit unions at the present stage can offer this group of consumers conditions that would allow them to attract individual savings in the financial sector.
4. Lack of efficiency of the stock exchange securities market, which is dominated by government bonds, and the total share of corporate securities fluctuates around 10%.
5. The presence at the market of a significant number of "captive" financial intermediaries that operate within the framework of leading financial-industrial groups and, as a rule, can

implement an irrational business strategy. Such financial institutions are quite common in the insurance market (they help to reduce corporate income tax payments by of " faulse insurance"); venture capital investment institutions (functioning with similar tasks); securities traders (used for price manipulation in the securities market), etc.

Thus, current problems remain quite significant, and some of them have not been solved for decades. One of these problems is the business strategy of Ukrainian financial intermediaries, which we conditionally designated as "rational economic opportunism". What is it and what criteria define its "rationality"? Analysis of Ukrainian financial sector shows that the answers to questions raised above are following:

- institutional immaturity of Ukrainian financial sector quite often makes it precisely opportunistic be6havior that is most beneficial for financial intermediaries. Moreover, in some cases, opportunism is the main opportunity to increase the competitiveness of financial institution. Example is Ukrainian banking sector. Ukrainian legislation provides for allocation of so-called "systemically important banks" (the Law of Ukraine "On Banks and Banking Activities"), whose functioning affects the stability of banking system of Ukraine. At first glance, based on the significance of such banks and their role in the financial sector, banking supervision should eliminate as much as possible reasons for opportunistic behavior for their management. On the other hand, over the past 10 years, Ukraine has experienced two systemic economic crises, and it was a number of systemically important banks that were catalysts for the crisis in the financial sector and the economy as a whole. For example, if in 2015 the National Bank of Ukraine allocated 8 such banks, in 2016-2017 - only 3 institutions. And it was OJSC Privatbank that became the real apple of discord when the state was forced to nationalize it at the expense of budget resources in order to prevent panic in the banking sector.
- existing model of regulation of financial sector in Ukraine not only does not prevent the opportunistic behavior of financial intermediaries, but also stimulates it to some extent. We can give an example of the deposit services market, which in the segment of banks is regulated by National Bank of Ukraine, in the segment of credit unions - National Commission, which carries out state regulation in the sphere of financial services markets. Differences in regulation are very significant and generate a fundamental difference between the level of consumer protection. Moreover, they directly make the depository market of credit unions an extremely "toxic" environment for both depositors and financial institutions themselves.
- in Ukraine, the reputational component of the financial sector development is at the minimum level. In some cases, we can talk about the punishment of managers of banks, insurance, financial companies, which actually negates the role of their contractual obligations. Moreover, in Ukrainian practice it is not at all difficult to imagine the struggle of financial institutions functioning for attracting a compromised manager to their governing bodies. Formed at the level of legislation requirements for managers of financial corporations are largely formal and do not fulfill their role in developed economies;
- merging of business and politics is one of the key factors that stimulates the opportunism of financial intermediaries. The overt lobbying of large players in individual markets quite often caused the occurrence of such significant flaws in the legislative field that it is the opportunistic model of behavior that was most beneficial for financial intermediaries. Moreover, the lack of meaningful progress in the field of judicial reform often does not allow protect the interests of consumers of financial services and the state, even if opportunism takes obvious forms.

We emphasize in particular that opportunism of financial intermediaries is typical for all components of Ukrainian financial sector, without exception. In the most acute forms, it is characteristic for insurance market. For example, according to the regulator of insurance services market of Ukraine, the share of complaints from consumers on the actions of insurers (mainly, it is question of refusals to pay insurance compensation and/or a significant underreporting) over the past few years has fluctuated within 70-75% of total amount. In fact, we are dealing with the existence of a cluster of insurance companies on the market, which use a wide range of methods to avoid paying insurance compensation payments or its minimizing. At the same time, other subjects of insurance market - appraisers, car dealers, etc. take an active part in such schemes. No less acute is the problem on the market of credit unions services. Its severity subsided relatively recently and only on the basis of the collapse in the consumer lending market in 2013-2015. A large number of Ukrainian credit unions built their development strategy at the beginning of the XXI century on two basic principles: first, the irrational overvaluation of deposit rates; secondly; maximization of lending rates and the number of collateral payments of loans, and as a rule, they were hidden. As a result, there is a massive refusal of credit unions to fulfill their obligations under deposit agreements, an increase of the number of problem contracts, a significant decrease in credit unions confidence and other credit institutions. This analysis can be continued further, because it is difficult to bring even the only segment of the financial sector of Ukraine, in which there are no manifestations of opportunism.

4. STATE AND BUSINESS STRATEGIES OF FINANCIAL INTERMEDIARIES IN UKRAINE

Mentioned above raises a number of complex issues related primarily with the necessity to develop and use various methods of restricting opportunistic behavior in the financial sector, as well as reducing its negative impact on the development of financial intermediaries. In this context, the issue of state regulation requires additional attention. At the same time, we do not exclude the fact that the state itself implements the behavioral line, which clearly has signs of opportunism. In the literature in this regard, autocratic opportunism is analyzed (Haber, Perotti, 2008). I.e. using available tools to influence economic processes (including regulation), the state can not only significantly change the competitive environment in the financial sector for the worse, but also make decisions that can be unambiguously evaluated as opportunistic. As a rule, such an approach is typical for countries with a "transitive" economy, based on a high level of business and political mergers. In the history of Ukrainian financial market there were a lot of examples in this context:

- the special practice of nationalization of individual banking institutions that was already mentioned in this work, which increased the debt burden on the state budget;
- privatization of the state insurance company (in this case, it can be argued that all Ukrainian society was negatively affected by the opportunism of the state);
- forming at the legislation level "special" conditions for fulfilling obligations to depositors by banking institution that is in a crisis state (we are talking about depositors of the Mikhailovsky Bank);
- selective approach to the implementation of anti-crisis package of measures in the financial market, in the center of which was usually the banking sector to the detriment of other financial institutions;
- functioning of financial corporations that are under state control (in this case, it is primarily a matter of state-owned banks). In the Ukrainian reality, the activities of state bank are often accompanied by high level of politicization;

- realization/rejection of the implementation of tough measures to financial intermediaries who refuse to fulfill obligations, depending on the level of political influence of their final beneficiaries.
- What is common to all cases without exception? In our opinion, the key principles are the distribution of economic (and political) benefits as a result of state actions. Consider this on the example of processes in banking sector, because here there is an excellent base for comparison - the experience of supporting financial institutions in developed countries during crisis. In our opinion, comparing the anti-crisis support of banks in Ukraine and in developed countries, it is possible to identify fundamental differences:
  a) experience of crisis management and support of banks threatened with bankruptcy is no way connected with reputational risks for bank management, especially with the threat of criminal prosecution, even in cases where the obvious opportunism of bank managers has led to the bankruptcy of a financial institution;
  b) the level and forms of support were largely depended on subjective factors, incl. - from the owners of financial corporations;
  c) the effectiveness of such support was extremely low, and often suspiciously low.

In general, it can be concluded that the practice of autocratic opportunism is common to countries with a "transitive" economy and weak democratic institutions.

5. KEY ASPECTS OF OVERCOMING THE OPPORTUNISTIC MODEL OF BEHAVIOUR IN THE FINANCIAL SECTOR

It is obvious that the solution of the problems of opportunistic behavior of financial intermediaries involves the use of integrated approach aimed primarily at eliminating the prerequisites that make the opportunistic strategy of financial intermediaries development more advantageous than other forms of economic behavior. In this regard, for the Ukrainian financial sector, along with other "transitive" economies, the most important tasks are the following:

- overall increase in the level of transparency in the activities of financial intermediaries.
- improving the efficiency of contract execution in the economy at whole and in the financial sector.
- leveling the influence of political factors on the functioning of financial sector through changes in its regulatory model.
- improving the financial literacy of consumers of financial services.
- development of package of anti-crisis measures that will be applied in the case of a crisis in the financial sector applies to all types of financial intermediaries without exception.
- forming an approach to the reputation of a financial institution, its owners and managers as a special form of intangible assets.

6. CONSLUSION

The impact and consequences of economic opportunism in the financial sector in particular forms manifest themselves in countries with a "transitional" economy. The weakness of institutional environment, coupled with the underdevelopment of democracy, catalyze the threats of opportunism and can lead to a crisis throughout the economy. As a result, there is a need to implement a set of measures aimed at addressing the root causes of opportunism. It should be kept in mind that these measures should be introduced both at the level of government regulation and at the level of inter-firm relations, as well as at the level of relations between financial intermediaries and consumers of their services.

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GREEN INVESTING FOR SDGS: EU EXPERIENCE FOR DEVELOPING COUNTRIES

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ABSTRACT

The paper devoted to the analysis of the main principals of green investments as the alternative recourse to finance the achievement of the Sustainable Developments Goals 2030. Besides, the obtained result of the analysis of green investments dynamic proved the snowballing effect of green finance market developing in the world. The results of analysed showed: that emerging and developed countries influence on climate with different power; had unequal financial potential to achieve Sustainable Development Goals. In the paper, the authors tried to check hypotheses: linking between the country's contribution to the international commitment on climate-related expending, the volume of climate finance (as a type of green investments) and the country's rating on the Sustainable Development Index. The objects of the investigation were European and developing countries in the period 2015-2017 years. Under this research, the authors used the dataset from World Data Bank, Eurostat, Reports of OECD, European Investment Bank, Climate Bonds Initiative, Sustainable Development Index. The findings showed the correlation between the volume of green investments (for two types: international commitment on climate-related expending, the volume of climate finance) and country's efficiency on the way to achieve the SDGs 2030. Thus, the country with the higher volume of green investments occupied the higher position on the Sustainable Development Index. On the basis of the findings and results of the analysis of the EU experience, the authors allocated the most attractive direction to develop green investments market for emerging countries.

Keywords: *investments, green economy, expenditure, green bonds*

1. INTRODUCTION

All world leader countries have already accepted and started to implement activities for achieving the Sustainable Developments Goals 2030 (SDGs 2030). Noticed, that the SDGs 2030 is a logical continuation of "Millennium Declaration" for 200–2015 years. So, new action plan consists of 17 goals (comparison with previous 8 goals) and 169 tasks which contribute the huge financial recourses and supporting. Thus, in most countries especially developing countries, this process isn't so quickly as the community and the experts wished. Firstly, it is connected with the lack of financing. The developing countries don't have a sufficient volume of financing and they have to attract additional financial resources which are corresponding to the ongoing features of market economy functioning. So, in this case, is necessary to analyse the modern financial resources which could be directed for achieving the SDGs goals.

2. LITERATURE REVIEWER

The results of the EU and the USA experience the most effective way to attract additional financing to the green goals implementation is to develop and to activate the green investment market. Thus, (Chan et al., 2018) proved that green investment is a catalyst promoting of a clean environment for future generation. In this direction, the first steps have already been done by the EU countries. Thus, they accepted the "Action Plan: Financing Sustainable Growth" (European, 2018) which are explained the finance strategy for the EU counties in the framework of achieving the indicated SDGs 2030. Noticed, that the experts suggested that existence is not enough for achieving SDGs 2030. According to the "Action Plan: Financing Sustainable Growth" annual financial gap between existence and necessary green investment is 180 billion EUR. From the other side, the experts from European investment bank estimated such gaps as 270 billion EUR. Thus, the boosting of green investment market is actually at the ongoing level of economic development. It should be highlighted, that the main restrict factors of green investment market is a misunderstanding among investors what is mean green investment and green activities. Besides, the main principles, calcification, universal account system haven't been developed yet. According to the "Action Plan: Financing Sustainable Growth" the experts defined green investment as a sustainable investment and supposed that they relate on sustainable activities (from energy efficient project to the education activities on green growth). According to the EU declaration Sustainable finance consists of a strong green finance component that aims to support economic growth while:

- decreasing negative impact on the environment;
- decreasing greenhouse gas emissions and the volume of pollution;
- minimising waste and increasing efficiency of natural resources using (Sustainable, 2018).

The similar assumption made the scientists from Cambridge Institute for Sustainability Leadership indicating that green investment is a capital which invests in 'green' assets (the funds, the companies, the infrastructures, the projects and etc.) for solving environmental problems. Walter Kahlenborn (2018) indicated that no clear-cut definition of green investment and understandable selection criteria of green assets remain the developing of the green investment market. The authors in the paper (Martinez-Oviedo, Medda, 2018) also made the conclusion that it is no standard definition of green investment and green assets which remain the developing of the green investment market. In their paper, the scientists Martinez-Oviedo and Medda defined green investment as follows: capital which invests in low carbon and climate resilient initiatives, clean technologies, renewable energy, or natural capital that can be considered environmentally beneficial (Martinez-Oviedo, Medda, 2018). The scientists in the paper (Adeel-Farooq et al., 2018) allocated the greenfield investment and associated it with the capital which finances the green projects. The authors Eyraud L., Clements B., Wane A., Martin P. and Moser D. in the papers (Eyraud et al., 2013; Martin, Moser, 2016) analysed green investment as the investment which direct to the decreasing of CO2 emission. The authors in the paper (Hagspiel et al., 2018) analysed green investment as an investment in renewable energy. Mielke, J., and Steudle, G. A. (2018) analysed green investment as capital in technologies and projects for climate change mitigation. Thus, the main difficulty is to determine and to identify the green assets. The EU commission in the "Action Plan: Financing Sustainable Growth" declared the creation of the EU system of sustainable classification activities as a first step by the end of 2019.Noticed, that the experts in the document (European, 2018) supposed that sustainable finance should base on two milestones: increasing volume of financing in sustainable and inclusive growth through the funding society's need in long-term period; achieving the financial stability through the consolidation environmental, social and governance (ESG) factors into investment decision-making (European, 2018). Therefore, in the paper (Eyraud et al., 2013) green investments were classified by the authors into three groups:

investment to provide low-emission energy supply; investment to provide the increasing of energy efficiency; investment to provide the changes in the forest and agricultural management (Eyraud et al., 2013). Noticed that the authors focused on renewable or green technologies excluding the investment in green education, green actions, carbon sequestration and etc. They explained such chosen by the lack of dataset and difficult to estimate. The authors in the investigation (Martinez-Oviedo, Medda, 2018) classified green investment into two groups relate on tangibles of assets: real (green technologies, green product and etc.) and non-real green investment (property rights for green technologies and product, green stocks and green bonds). The results of the analysis of the scientific papers justified that green investment's classification isn't so different from the traditional approach to classifying the general investment. In the report (Inderst, 2012) the experts underlined, that green investment is closely connected with the type of investing and allocate investment approaches which shown in table 1.

Table 1: Approaches to classifying the green investment (Compiled by the authors on the basis (Inderst et al., 2012)

APPROACHES	TYPES
Green investing	eco-friendly, carbon, climate change investing and etc.
The E in ESG	environmental, social and governance investing.
Thematic investing	in green sectors or themes such as water, agriculture
SRI	socially or sustainable responsible investing
Impact investing (including microfinance)	which provide a positive impact on the environment
Long-term investing	which oriented not for the short-term profit, so orient on stable profit and long-term results.
Universal ownership concept	Investment in the wide range of green asset classes distributed among economic sectors that the organization effectively owns a slice of the broad economy.
Double or triple-bottom-line investing	During making decisions on green investing considering not only economic but social and ecological goals; based on the sustainable development concept.

From the other side, the authors in the works (Vyshnickaya, 2013; Kvaktun, 2014; Heinkel, 2003) highlighted that green investment involves all abovementioned investments in table 1 and these are types of green investment. So, as the universal definition of green investment isn't accepted the universal classification of green investment hasn't existed yet. The results of the analysis of the scientific papers (Inderest et al., 2012) showed that green bond is the most popular type of green investment. Besides, the experts from UBS Wealth Management assumed that 93% from investors who invest in green economy sure that green investment is more profitable than traditional (Yiu, Choi, 2018). From the other side, the stereotype that green investment is non-profitable still exist. Firstly, it is the consequences of that such investments have the huge payback period which negative influence on making decision invest or not.
Thus, the boosting of green investment market contributes to overcoming some barriers as follows:

- develop the fundamental theory of green investment market with allocation the main players and their role and duties;
- develop the legislative base of green investment market;
- develop a universal system of accounting green investment;
- develop the policy to support the green investors with indicating the advantages and perspectives of green investment.

The authors in the paper (Adeel-Farooq et al., 2018) proved the correlation between greenfield investment and the country's environmental performance which is a basis of the sustainable economic growth. The authors used the Environmental Performance Index as an indicator of the country's environmental performance.The Chinese scientists in the work (Wang et al., 2018) proved the positive relationship between government policy and green investment. In the paper (Eyraud et al., 2013) the scientists proved the linking between economic growth, interest rates, fuel prices and volume of green investment. Therefore, they made the conclusion that economic growth, low-interest rates, and high fuel prices have a positive impact on green investment market. The authors in the works (Azhgaliyeva et al., 2018) investigated the correlation between green investment and fiscal policy to support renewable energy. The findings showed that feed-in tariff and loans had a positive effect on private green investment, so the grants, subsidies, taxes and government spending on R&D have not a significant impact on private green investment. In the paper (Afni et al., 2018) the scientists proved that green investment had a positive influence on the disclosure of carbon emissions. In their work Green investment was analysed through the Social Responsible Investing Index. Besides, they assumed that green investment could come from the additional investing or from green Foreign Direct Investment as a source of private sector financing and transfer of technology between countries (Afni et al., 2018). In this case, according to the traditional economic theory, the volume of foreign direct investment could be higher if country demonstrated the stable economic growth and had the positive and stable investment climate which could be characterized by the special indexes. In the framework of the sustainable development concept and green investing, the green investing climate could be characterized by the indexes as follows: Environmental Performance Index, Social Responsible Investing Index, Sustainable Development Goals Index, Global Sustainable Competitiveness Index. Therefore, the Sustainable Development Goals Index (SDGs Index) and Global Sustainable Competitiveness Index (GSCI) described the country’s positions on the way for achieving the SDGs 2030. The main goal of this paper is analysing the linking between the country's contribution to the international commitment on climate-related expending, the volume of climate finance (as a type of green investments) and the country’s rating on the GSCI as the indicator of achieving the SDGs 2030.

3. METHODOLOGY

Under this research for analysis, the authors used the software Stata 14.0. As a type of green investment used the country's contribution to the international commitment to climate-related expending and volume of climate finance. The dataset of GSCI was obtained from the official reports. GSCI consists of 111 indicators obtained from reliable sources, such as the World Bank, the IMF, and different UN agencies. All indicators are grouped into 5 sub-indexes:

- Natural Capital;
- Resource Efficiency & Intensity;
- Intellectual Capital;
- Governance Efficiency
- Social Cohesion.

Thus, in the paper the authors checked hypotheses:

- H1: linking between the country's contribution to the international commitment on climate-related expending(CM)and the country’s rating on the GSCI;
- H2: linking the volume of climate finance (GFI) and the country’s rating on the GSCI.

At the first step authors of the analysis, the cluster analyses were used which based on Ward's agglomerative hierarchical clustering procedure (which based on the principal component analysis).

With the purpose to check the correlation between indicators, the authors proposed to use regression analysis. The authors used a matrix of Pearson's correlation coefficients (r) (formula 1).

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}} \qquad (1)$$

For checking abovementioned hypnosis, the authors used the databases as follows: World Data Bank, Eurostat, Reports of OECD, Reports of European Investment Bank, Reports of Climate Bonds Initiative, Sustainable Development Index. For the analysis, the European countries were chosen.The dataset of CM was taken from Eurostat, the climate finance was estimated though indicator which characterised the value of greenfield investment on green projects which obtained from UNTCAD (2018).

4. RESULTS

The results of the analysis showed that emerging and developed countries influence on climate with different power. Thus, the world-leader countries on GNI per capita have higher CO2 emission than countries with less GNI. The classifications of the county are presented in table 2.

Table 2: Classification of the countries according to the World Data Indicators (World Bank, 2018)

GROUP OF COUNTRIES	GNI PER CAPITA IN 2017
High-income	$12,056 or more
Upper-middle-income	$3,896 and $12,055
Lower-middle-income	$996 and $3,895
Low-income	$995 or less

Figure 1 showed that high-income countries have been producinga huge volume of CO2 emission compare with Low-income countries. From the other side, the tendency of CO2 emissions in high-income countries could be described as decreasing. Thus, in 2014 the CO2 emissions were less compared with the 1990 year. Besides, the decreasing of CO2 emissions has started in 2007 among high impact countries. On the other hand, the world tendency of CO2 emissions has been continuing to increase compared with the 1990 year. Firstly, it was a consequence of the rapid developing of upper-middle-income countries. Therefore, the low income and low middle-income countries haven't declined the volume of CO2 emissions yet.
The results of comparative analysis of CO2 emission showed (figure 2) that compare to the 1990 year in 2016 the emissions in the world-leader countries increased by 100–300%, particularly China by 353% in 2016 compare to 1990, the USA – 101%, India – 287%. From the other side, in 2016 some countries have already decreased their CO2 emission to the environment: Moldova – by 74%, Ukraine by 70%, Lithuania and Latvia 60%, Romania – 58%, United Kingdom – 36% and etc.

Figure following on the next page

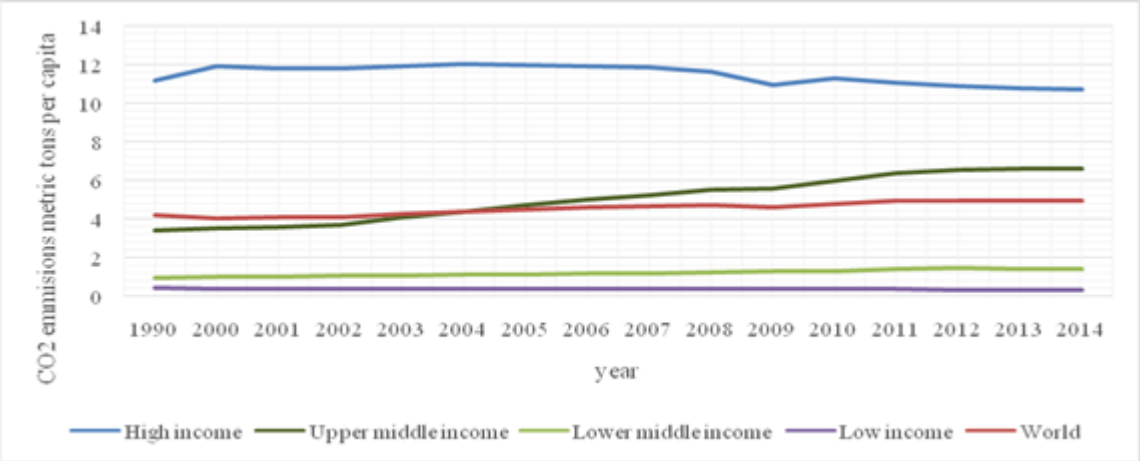


Figure 1: CO2 emissions under the country's group (metric tons per capita) (World Bank, 2018)

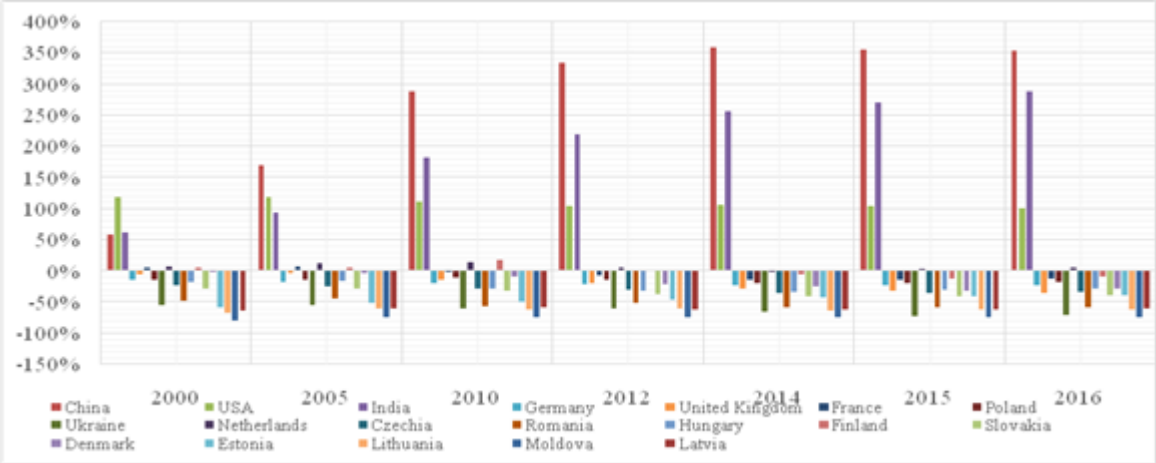


Figure 2: The changing of share in the world CO2 emissions among analysed countries (compare to 1990) (developed by authors on the basis of Fossil CO2, 2017)

Noticed, that at the 21st Conference of the Parties the developed-country declared to increase their level of financial support, providing USD 100 billion annually by 2020 with a concrete roadmap to achieve the SDGs (European Environment, 2018).The results analysis of spending from budget among EU countries proved the positive growth of green finance volume in 2016 compared with 2014 and 2015 years. Thus, the leader in contribution to the international 100bn USD commitment for climate finance among EU countries is Denmark, Germany, France, United Kingdom. The abovementioned results of analysis proved that decreasing of CO2 emissions contribute the additional financial recourses. Thus, countries with high GNI have more financial recourses to decline the negative impact on the environment. At the same time, low-income countries don't have significance financial recourses to finance the greening of the economy. In this case, we received the vicious cycle: low-income countries produced less CO2 emissions, but CO2 emissions tendency has been still increasing and these countries don't have enough financing to decline this tendency. Thus, for low-income countries is more actual to attract additional green investment. The main indexes which characterized the country's efficiency on achieving of SDGs are SDG Index and Global Sustainable Competitiveness Index (GSCI). Thus, according to the official report SDG Index (Sachs et al., 2018), the first ten positions was also occupied by the high-income countries: Denmark, Germany. Besides, according to the dataset in table 3, the countries in the first position on SDG Index made a higher contribution to the international commitment on climate-related expending.

According to the report of GSCI (The Sustainable, 2017), the countries form high-income group have a high ranking on GSCI. The experts proved the correlation between Sustainable Competitiveness score and GDP per capita or income levels (The Sustainable, 2017). With the purpose to estimate the sufficient level of green investing in achieving the SDG, the cluster analysis was done. At the first step, the results of the cluster analysis showed that dividing into four clusters wasn't adequate, because in two clusters only by one country was (table 3): cluster 3 – France and cluster 4 – Germany.

Table 3: The findings of cluster analyses (four clusters) (the authors' calculations)

Cluster	CM	GFI	GSCI
1	464.0129	8613.711	51.92429
2	25.578	2505.653	50.792
3	3334.84	14119.66	51.78
4	8534.08	13617.44	52.06

At the next step, two clusters were allocated. The finding of cluster analysis showed in table 4. In the second cluster, the following countries were Germany, France, Poland, United Kingdom and Spain. The minimum volume of CM – 143,79 and GFI – 359,04 mln EUR for that cluster. Thus, if the developing countries (such as Ukraine) wish to move to the first cluster should spend in average 165,08 mln EUR of CM (5934.46 mln EUR for the second cluster) and 16182.43 mln EUR of GFI (16182.43 mln EUR). Besides, such volume of green investment corresponds to the average score of GSCI – 51,15 (for the second – 51,92).

Table 4: The findings of cluster analyses (four twoclusters) (the authors' calculations)

Cluster	CM	GFI	GSCI
1	165.08	2352.932	51.15227
2	5934.46	16182.43	51.92429

With the purpose to check the correlation between CM, GFI and GSCI the Pearson's correlation analysis was done. The finding presented in table 5.

Table 5: The matrix of Pearson correlation coefficient for EU countries (the authors' calculations)

	CM	GFI	GSCI
CM	1		
GFI	0.7774* 0.0000	1	
GSCI	0.6692** 0.0294	0.7518** 0.0490	1

*Note: *, ** represents significance at the 1% and 5% levels.*

The obtained results of Pearson's correlation analysis between GSCI, greenfield investment and country's contribution to the international commitment on climate-related expending proved the relation between abovementioned indicators. The correlation between GSCI and CFI exist with probability 75% and correspond significance 5%. The correlation between GSCI and CM exist with a probability of 67% and correspond significance 5%. With the purpose to check the statistical significance of the correlation between GFI, CM and GSCI the econometric method was used (table 6).

Table 6: The results of the analysis the linking between GFI, CM and GSCI (the authors' calculations)

Independent variables	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
GFI	.0033569	.0009793	3.43	0.002	.0013311	.0053828
CM	.0093161	.0053054	1.76	0.092	-.0016589	.0202912
Depended variables – *GSCI*						

Thus, the findings (table 6) showed the statistical significance relation between GSCI, greenfield investment and country's contribution to the international commitment to climate-related expending. Therefore, the increase by one point of GFI leads to increasing of GSCI score by 0,034 points, the increasing of CM by one point lead to increasing of GSCI score by 0,093 points.

5. CONCLUSION

The results of analysis of EU experience showed that green investment is a perspective alternative recourse to finance the achieving of SDG 2030. However, the obtained results allocated the problems which restrict green investment market development: no universal normative and legislating bases, statistical accounting, lack of knowledge and information. From the other side, the investigation results of EU experience on developing and supporting of green investment market showed that adequate incentive mechanism stimulates the increase of greenfield investment and contribution to the international commitment on climate-related expending. The obtained results showed that countries, which try to develop green projects and allocate for that purpose additional financing were more effective in achieving the SDGs 2030 and hada higher position on GSCI. Besides, the obtained results proved the researcher's hypotheses, but the impact of chosen indicators CM and GFI were not so huge. In this case, for further research, it is necessary to allocate and analyse other more impactful indicators.

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THE NATIONAL ECONOMY COMPETITIVENESS: EFFECT OF MACROECONOMIC STABILITY, RENEWABLE ENERGY ON ECONOMIC GROWTH

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ABSTRACT

According to the reports of the Global Competitiveness which developed by the World Economic Forum, the competitiveness was defined as "a set of institutions, policies and production factors that form the level of the country's performance". This paper investigates the effect of macroeconomic stability, environmental performance on economic growth. The object of investigation – the countries with transformation process from the recourses to the effective economic model according to the reports of the Global Competitiveness which developed by the World Economic Forum. The authors indicated that the main goal to achieve the stable growth – increasing the level of the national economic competitiveness could be realized not only through the growth of the key determinants of the competitiveness: institutions; infrastructure; macroeconomic stability and etc., but also considering the aspects and parameters of country's environmental performance. The methodology instruments of the investigation were modified production function of Cobb-Douglas which considering the level of the country's macroeconomic stability and environmental performance. The period of investigation was 2000–2017 years. Under this research, the authors used the dataset from World Data Bank, Global Environmental performance Index, Global competitiveness report. The findings proved the correspondence of the developed models to the input dataset. Moreover, the assessments of the elasticity of the developed model components were positive and statistically significant.

Keywords*: economic growth, environmental performance index, human capital, physical capital, stability*

1. INTRODUCTION

The systematic progress process of globalization an international competitiveness are the main features of the dynamic changes which observed in the world economic. Therefore, the convergence of abovementioned processes follows from the necessity to adapt countries according to the rapid scientific and technological progress, internationalization of economic cooperation, aggravation of common social, ecological and economic problems. The long-term of the country's macroeconomic instability, both in its internal and external appearance, lead to the high risks of a crisis, decreasing the economic growth temp and quality of life. The consequence of the last financial crisis in 2007 provoked implementing of new institutional

decisions which were going to improve the EU functioning. Thus, the macroeconomic imbalance (internal and external aspects) in the euro zone (European Commission, 2015) were mitigating. The external macroeconomic balance describes the relationship with other countries and could be estimated through the volume of foreign investment, the volume of export and import, stable exchange rate and etc. The internal balance could be achieved when the country's actual production corresponds to the full using of production factors, unemployment level corresponds to the natural unemployment, the level of inflation remains at a low and stable level. At the same time, in 2015 UN General Assembly resolution "Transforming our world: the 2030 Agenda for Sustainable Development" indicated the main goals of sustainable development which characterise the relationship between economic, social and ecological processes. Therefore, the safety of environment has become the key factors of success future country's development. Energy sector is a main factor, which determines social and economic development in the world. According to Ener Data during 1990-2016 the world energy production increased by 59% (from 8 759Mtoe in 1990 to 13 903Mtoein 2016). The largest share to provide this growth included non-renewable energy sources – 75.5% (Sawin et al., 2018), most of which is produced at thermal power station owing to the burning processes. It causes the increase of combustion products growth among which there is CO2, and then increase of negative impact on environment. In particular, during 1961-1979 CO2 emissions average growth in the European Union (EU) was25.07% per year, which was4 647 643.766 thousand kt at the end of 1979. Understanding of the ecological problem for EU Member States lead to introduction of Directives 67/548/EU on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (1967) and 70/220/EU on the approximation of EU Member States' legislation relating to the measures, taken against air pollution by vehicle emissions (1970). In 1972 UNO Stockholm Declaration on the Environment was adopted, and next year the first ecological program in EU was accepted (1972). Introduction of those regulatory documents lead to constant reduction of CO2 during1979-2014 on average by 14% annually. Volume of CO2 emissions in 2014 was at the level of 3 241 844.353 thousand kt, that is 1 405 799.413 less than in 1979.

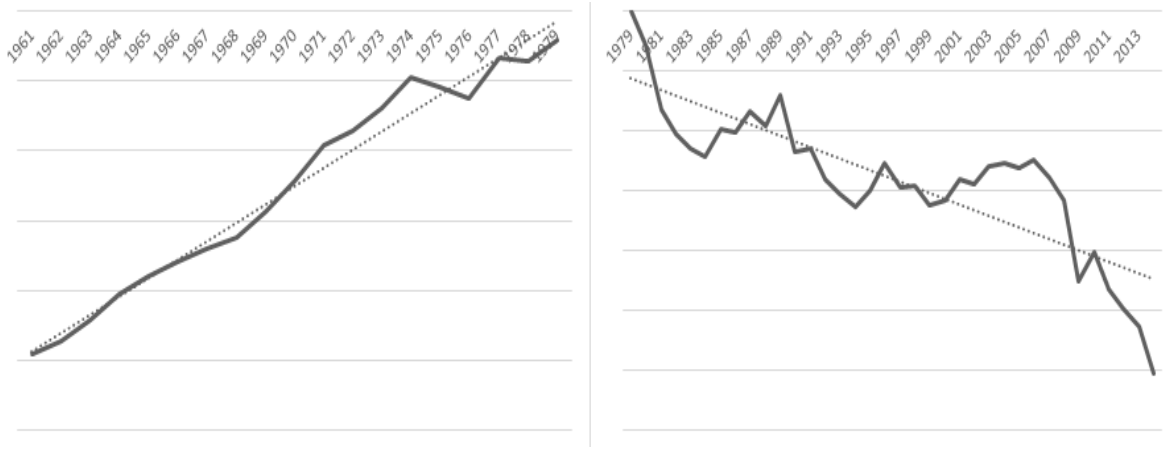


Figure 1: The temp of CO2 emission in EU 1961-1979 и 1979-2014 (World Bank Data)

At the same time, limited resources of fossil fuel as the main energy source, using of which has negative impact on the environment, made to look for ways of rational energy management and to get it by means of the renewable energy sources. In this case the perspective way to reduce CO2 emissions in the world is to use renewable energy sources (RES). Most countries, including all EU Member States and Ukraine, adopted programs on RES introduction and set up a goal to increase energy production based on RES.

Germany planned that 18% of the final energy consumption in electric power industry, transport sector and heat power industry will be provided through RES by 2020. In Poland, the main goal is that 15.5% of final energy consumption is provided through RES, in Lithuania – 23%, in Latvia – 40%, in Moldova –17%, in Estonia – 25% (Sawin et al., 2018, Prokopenko et all, 2017). 11 countries of EU achieved the set goals on RES in 2015, including Estonia and Lithuania. Total investment in RES in the world amounted to 113 billion $ in 2006 and 242 billion $ in 2016. The RES total installed capacity in the world in 2016was 2 017 GW (Sawin et al., 2018). During the Ukraine's independence the largest level of CO2 emissions of about 630 929,352 thousand kt was registered in 1992, figure 2.

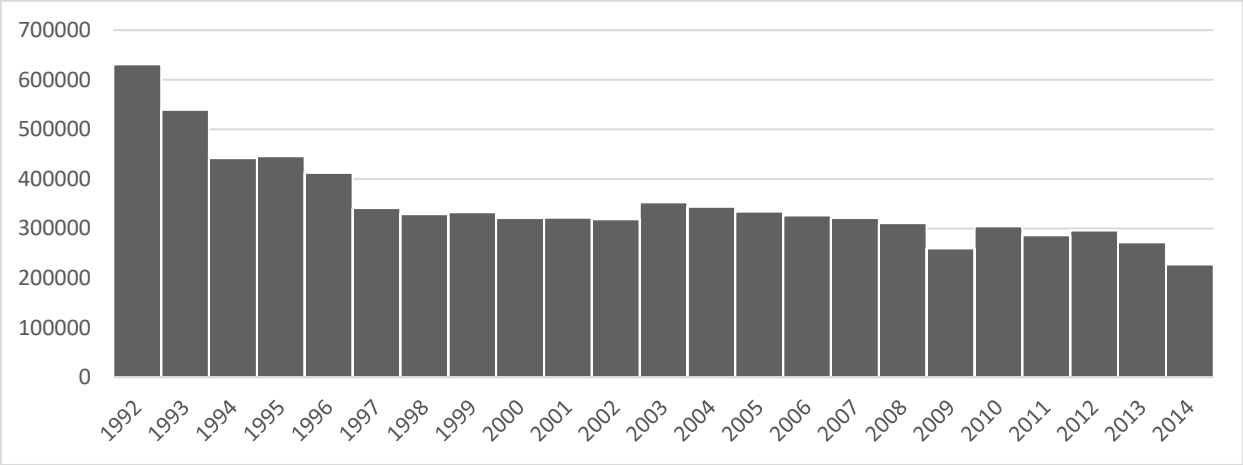


Figure 2: CO2 emissions in Ukraine during1992-2014, kt (World Bank Data)

In 1992-2014 CO2 emissions into the air were constantly reduced in average by 4.15% annually in Ukraine. It was facilitated by Ukraine's signing of Kyoto Protocol, by taxes on harmful substances emissions into the air and by reduction of production volumes, related to crisis in Ukraine 1990-1999, 2008 and from 2014 till today. According to Global Status Report 2017 Ukraine set a goal to achieve the RES final consumption index of about 11% (Sawin et al., 2018).

2. LITERATURE REVIEW

The connection between energy production growth and the environmental load can be explained by Environmental Kuznets curve (Kuznets, 1955). It demonstrates relationship of economic and ecological indicators and confirms that in countries with extremely developing economic indicators (GDP growth) the load on environment is growing, and at the same time, as the country's welfare increases, demand for clean and safe environment grows. Using Environmental Kuznets curve on the example of 17 countries OECD during 1977-2010, Bilgili F and Ozturk Ilhan (2015) came to decision about relationship between RES consumption volumes and CO2 emissions. Thus, the authors in the papers (Bhandari, 2018; Mačaitytė et al., 2018; Pimonenko et al., 2017; Prokopenko et al., 2017; Cebula et al., 2015; Lyulyov et al., 2015;) analysed the causes of CO2 emission and issues to decrease it. Besides, the scientists in the papers (Masharskyet al., 2018; Vasylyeva et al., 2014;Dkhili, 2018;Chygryn, 2016) proved that RES is key part of countries' energy security. The similar conclusions were gained after study of 68 countries by scientist from Cyprus–Panayotou for the period 1980-1991(1993). Scientist concluded that there was relationship between economic growth and environment degradation. The scientists proved the linking between social indicators (Vasilyeva et al., 2015), ecological indicators which include efficiency of RES (Singh, 2018; Chygryn, 2018;Vasylieva et al., 2018), macroeconomic stability in low-middle income countries (Lyeonov et al., 2018).

At the same time, an empirical estimation of Environmental Kuznets curve for four countries with different income level for the period 1975-2014,fulfilled in the work of authors Azamand Khan (2016), proves absence of the proper dependences for countries with high income. In works (Apergis & Payne, 2014; Bildirici, 2013; Bilgili & Ozturk, 2015; Cho et al., 2015; Fang, 2011; Menegaki & Ozturk, 2016; Kahia et al., 2016; Ocal & Aslan, 2013; Salim & Rafiq, 2012) one of the proposed assumptions is bidirectional or unidirectional relationship of economic growth (GDP) and RES growth. For example, studies of Al-mulali (2015), Apergis and Payne (2014), Dogan, and Turkekul (2016), Menegaki (2016) are resulted in mathematic confirmation of bidirectional relationship between economic indicators growth (GDP) and RES growth in the country. Besides, works (Ben Jebli et al 2015; Mert, Bölük, 2016; Zoundi, 2017) study RES growth and associate it with volumes of CO2 emissions. Apergis (2010), Bildirici (2013), Ocal and Aslan (2013) prove dependence between CO2 emissions and RES(Ozturk & Bilgili, 2015). The research of Menegaki (2016) and Tugcu (2013) confirm independence (neutrality) of those indicators. To analyze relationship between RES and GDP in studies (Fang, 2011; Kahia et al, 2016; Tugcu, et al, 2012)authors use Cobb-Douglas production function:

$$Q = AL^{\alpha} * K^{\beta}$$

where Q = total production (the monetary value of all goods produced in a year); L = labour input (the total number of person-hours worked in a year); K = capital input (the monetary worth of all machinery, equipment, and buildings); A = total factor productivity; α, β are the output elasticity of labour and capital, respectively.

Modified function can be demonstrated as:

$$\ln Y_i = \phi + \alpha \ln \mathrm{REC} + \beta \ln \mathrm{SREC} + \gamma \ln K + \delta \ln L + \lambda \ln T + \mu$$

At the same time, we think that it is necessary to take into account level of country's political and macroeconomic stability, while studying the relationship between RES level and economic growth. It is explained by the fact that power plants, which use RES technologies, have long payback period. That is why, in the investment assessment the macroeconomic and political stability factors more significant, because most programs on RES introduction is supported by government. And GDP drop in countries, including EU member countries, during the financial an economic crisis was caused by macroeconomic instability (Vasylieva et al., 2018; Lyeonov et al., 2018). The main object of the article is to reveal connection between country's GDP fluctuation, RES volumes growth, considering political and macroeconomic situation in the country.

3. DATA

The authors have studied 7 European countries (Latvia, Lithuania, Moldova, Poland, Ukraine, Georgia and Belarus), which have similar economic situation by the time of the Soviet Union collapse. It lets to reveal general factors of development and dependencies between them. Analysing data of World Bank for the period 1995-2014, in relation to the ratio between average production volumes of RES and GDP per capita (fig 2),one may point out, that countries, which are not EU Member States - Moldova, Belarus and Ukraine, have low indicator regarding RES introduction and low GDP. At the same time Moldova, Belarus and Ukraine have larger potential of solar power plants, than other EU Member countries, but therefore, there is great difference in energy volumes, generated from RES. Poland and Lithuania have high indices of GDP per capita with low RES volume. We believe that soon one can observe increase of GDP level per capita and growth of the RES production. It is explained by the fact that there is relationship between GDP per capita and RES, because countries with high GDP per capita

have large production volumes owing to RES, and in rare instances, another situation can be observed, such as in Georgia. Therefore, Georgia is a country, which has abilities to increase GDP per capita thanks to RES.

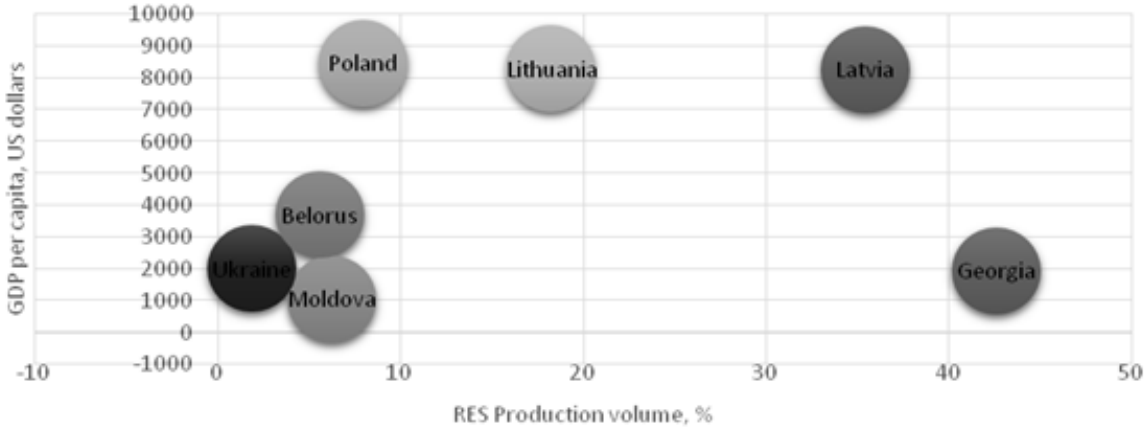


Figure 3:Ratio of energy production volumes thanks to RES and GDP per capita (the authors calculation)

4. METHODS

Considering studies (Fang, 2011; Kahia et al., 2016), we chose Cobb-Douglas production function as basic function of three constituents: technological coefficient, capital and labour, but it is modified considering RES production volumes, CO2 emissions, and political and macroeconomic stability level in the analysed countries. In works (Sadorsky, 2009) foreign investment impact on RES level is pointed out. In order to analyse panel data, we use fixed and random effects regression models, shown in the following way:

$$Y_{it} = \alpha + X'_{it}\beta + v_{it}, i = 1, \dots, N; t = 1, \dots, T$$

where α – intercept term, β – vector of dimension coefficients, X'_{it}vector-line of matrix, explaining the variables, t – time series of the model,v_{it} – modelling of the random fault. Herewith:

$$v_{it} = u_i + \varepsilon_{it}$$

where u_i –unobserved individual effect, which does not depend on time, but characterizes objects, which are not included into the regression model; ε_{it} – parameter, changed depending on time and analysed objects, may be observed as a random constituent.

Difference between fixed and random model consists in the fact that in the fixed model u_i is fixed parameter and ε_{it} is an individual equally distributed random parameter. It is expected that $X_{it}$is a parameter, which does not depend on ε_{it} for all *i* countries and *t* (2000-2014 in our model). Random effects model differs in the fact that individual random effects $\mu_i$are presupposed to exist. Besides, $u_i \sim \text{IID}(0, \sigma_u^2)$, $\varepsilon_{it} \sim \text{IID}(0, \sigma_\varepsilon^2)$ and μ_i do not depend on ε_{it} (Clarke et al., 2015). X_{it} does not depend on $u_i$andε_{it} for all countries (*i*) and years (*t*). This model is implemented for random set of objects. In order to select a model, which will describe the data most adequately, Hausman test may be used. It let to estimate and to choose the most objective model among fixed and random models. Main hypothesis is compared in the test, where u_i is fixed effect.

$$H_0: corr(u_i, X_{it}) = 0$$

or u_i is expressed as a random effect.

$$H_A: corr(\alpha_i, X_{it}) \neq 0$$

Hausman test is based on differences of assessments: $\hat{q} = \widehat{b_{FE}} - \widehat{b_{RE}}$, where$b_{FE}$ – assessments of fixed effect model, andb_{RE} – assessments of random effect model.
Based on the above, modified Cobb-Douglas function may be shown in the following way:

$$\ln Y_1 = a_1 + b_1 \ln X_1 + b_2 \ln X_2 + b_3 \ln X_3 + b_4 \ln X_4 + b_5 \ln X_5 + b_6 \ln X_6 + b_7 \ln X_7$$

where Y_1 – GDP (current US$), X_1 – capital (gross fixed capital formation), X_2 – labour (total population), X_3 – foreign direct investment, net inflows (BoP, current US$),$X_4$ –economy openness, X_5 – macroeconomic stability in the country,X_6 – amount of renewable energy sources in the energy production system (%),X_7 – CO2 emissions.

Based on this function, hypothesis was checked by two ways: fixed method regression and random effects regression.

4.1. Panel results

Based on the calculations, we can see small similarity of fixed method regression and random effects regression results, table 1. Following the fixed method regression, non significant indicators include foreign direct investment (0.513) and economy openness (0.872). Data about CO2 emissions and macroeconomic stability are valid (0.003and 0.001), they are within acceptable parameters (X < 5%). The model is totally described with zero error. Dispersion is less than 0.06%. It should be mentioned that with increase of labour index, economy openness and foreign direct investment, total population (X_2) by 1%, will lead to GDP (Y_1) reduction by 2.953%. At the same time, RES volumes change (X_6) by 1% causes GDP growth by 0.2707%. GDP is positively influenced by capital (X_1), macroeconomic stability (X_5) and CO2 emissions (X_7).

Table 1: Fixed and Random Effects Regression (authors' calculations based on the World Bank data, estimated with Stata 14.2. and** represents significance at the 1% and 5% levels.)*

Variables		Fixed Effects Regression		Random Effects Regression	
Depend	Inderpend	Coef.	P>|t|	Coef.	P>|t|
Y_1	X_1	0.6571554*	0.000	0.7735829*	0.000
	X_2	-2.953006*	0.000	0.292325	0.703
	X_3	-0.029413	0.513	0.0072939	0.397
	X_4	-0.182067*	0.001	-0.4799553*	0.000
	X_5	0.0148275	0.872	0.2501649**	0.033
	X_6	0.2707344*	0.000	0.1588645*	0.000
	X_7	0.3252465*	0.003	0.2427948*	0.000
	const	51.94154*	0.000	2.494204**	0.018
R-sq		0.9784		0.9604	

Following the random effects regression Table 2, insignificant figures are the same ones as in the fixed method regression, particularly–foreign direct investment (X_3: 0.397) and economy openness (X_5:0,033).

In addition to them population index is an insignificant parameter (X_2:0,703).Therefore, all these parameters have positive impact on GDP level ($У_1$). As the fixed method, this model has minimum dispersion and is described by these data. Macroeconomic stability parameters (X_5:0.2501) and RES level (X_6:0.1588) positively influence the GDP level ($У_1$). While using both methods, RES percentage (X_6), macroeconomic stability indicator (X_4) and CO2 emissions volume (X_7) are significant and have positive impact on GDP level ($У_1$). The received results have to be inspected for the necessity to implement instrumental variables using Hausman test. This test is a general test for model specification correctness. It is used to check the random effect model correctness in comparison with fixed effect model for penal data, the results of test are shown in the table 3. The received results show p-level <0.01, that is why, in our case determined model is better suited to us. It was to be expected, because countries-neighbours of the European region with the same parameters are chosen in the concrete research. Based on data from Hausman test, it is necessary to use results of fixed method regression, since data of random effects regression do not conform to the fixed method.

Table 2: Hausman Test
(authors' calculations based on the World Bank data, estimated with Stata 14.2.)

	Coefficients		(b-B) Difference	sqrt (diag(V_b-V_B)
	(b) fixed	(B) random		
X_1	0.6571554	0.7735829	-0.1164275	
X_2	-2.953006	0.292325	-2.982239	0.4173638
X_3	-0.029413	0.0072939	-0.102352	
X_4	-0.182067	-0.4799553	0.2978946	
X_5	0.0148275	0.2501649	-0.2353374	
X_6	0.2707344	0.1588645	0.1118699	0.231371
X_7	0.3252465	0.2427948	0.0824517	0.842984
b= consistent under Ho and Ha; obtained from xtreg B= inconsistent under Ha, efficient under Ho; obtained from xtreg				
Test	Ho: difference in coefficients not systematic chi2(7)=(b-B)`[(V_b-V_B)^(-1)](b-B)=54.39 Prob>chi2=0.000 (V_b-V_B is not positive definite)			

Although there is different GDP level, the studied countries have an explicit trend to increase GDP, and small reduction in all countries during 2005-2010, caused by the world crisis in 2008.

5. CONCLUSIONS

Providing humanity with energy is directly related to the environmental load. Most energy in the world is produced by means of the burning process. It leads to harmful substances emissions into the atmosphere. During 1961-1979 CO2 emissions into the atmosphere were constantly increased. Understanding the environmental problem, important documents were approved in European Union, among which Directives 67/548/EU, 70/220/EU and UNO Stockholm Declaration, the goal of which was to reduce the environmental load and emissions volume. It lead to decrease of CO2 emissions into the atmosphere on the average by 14 % annually. In order to ensure goals of the sustainable development and modern demands in energy in the world, renewable energy sources implementation gains great popularity. Many countries, including Latvia, Lithuania, Moldova, Poland, Ukraine, Georgia and Belarus set a goal to be greatly provided with energy thanks to renewable sources in future. The relationship between economic development and environmental load is studied by scientists from the whole world, among which Panayotou, Apergis, Bildirici, Ocal, Menegaki, Tugcuand others. They study linking between economic growth (in GDP) and renewable energy sources, and growth of

renewable energy sources with CO2 emissions volume. In order to investigate changes of GDP level in the country with renewable energy sources growth taking into account political and macroeconomic stability of the country, we choose modified Cobb-Douglas production function, constituents of which are: technological coefficient, capital, labour, RES production volume, CO2 emissions, macroeconomic stability level. The fixed and random effects regression model to analyse panel data of seven countries (Latvia, Lithuania, Moldova, Ukraine, Georgia, and Belarus) during 1995-2014 were used. In order to choose more adequate and objective model, Hausman test may be used. Based on the findings of fixed method regression parameters of foreign direct investment and economy openness were not significant. Parameters of labour, capital, CO2 emissions, macroeconomic stability and RES production volumes were significant. Model was described with zero error, dispersion is less than 0.06%. The research's hypothesis is confirmed by the findings. The RES energy production volumes and macroeconomic stability were statistically significant. Growth of one parameter leads to GDP growth. In case of RES growth by 1% GDP growth will be 0.2707%. Increase of macroeconomic stability index by 1% will cause GDP growth by 0.0148%. In this case, it is necessary to update mechanism and instruments of spreading RES considering the statistically significant linking between RES and GDP with purpose to decrease CO2 emission and achieve the macroeconomic stability.

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SOCIO-ECONOMIC PROBLEMS OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

It is one of the important priorities that the Azerbaijani government has put forward and successfully implemented provision of sustainable socio-economic development in our country. Sustainable development - it is envisaged that the needs of today's generations will be met in the normal way without interfering with the future generations' ability to meet consumer needs. The concept of sustainable development is harmoniously coordinated with ecological, economic and a trio of social issues.One of these economic issues is food security. The first strategic objective of the "Strategic Road Map for the Production and Processing of Agricultural Products in the Republic of Azerbaijan", consisting of nine strategic goals enhancing institutional capacity to ensure food security. Proposals for the creation of the Food Safety Commission on this strategic objective have been prepared. At the same time, international experience has been studied for conducting regular monitoring to assess the risks of food supply with respect to sustainability and a food safety monitoring project has been developed. Food Safety Agency has been established to ensure food security in the country effectively. The main purpose of long-term measures in the field of food security is to increase the profitability and competitiveness of Azerbaijan's agriculture, as well as to integrate it into the international economic system. Food security should be ensured primarily by improving agriculture and improving the food consumption situation in the country. However, experts do not consider the current level of subsidies to the state to be sufficient to ensure food security. Nevertheless, more subsidies are needed to achieve food security and the proper and efficient allocation of allocated funds remains an important issue.

Keywords: *Economic problems, Food safety, Sustainable development*

1. INTRODUCTION

Sustainable development means that the needs of today's generations will be met in the normal way without interfering with future generations' ability to meet consumer needs. The philosophical essence of the sustainable development concept is to use the planet's natural resources efficiently and economically, to preserve the environment, and to improve the quality of life of present and future generations. Along with that, sustainable development envisages socio-economic and environmental development aimed at meeting the needs of the people wisely and maintaining peace on the planet. The basis of the sustainable development concept is a trio of triangularly harmonized environmental, economic and social issues. Food security is the main social and economic issues of sustainable development.

2. FOOD SAFETY

The government of Azerbaijan put forward and is one of the important priorities that it has successfully accomplished provision of sustainable socio-economic development in our country. As it is evident, it envisages a comprehensive, diversified development of the country's economy. Sustainable development - the systematic approach that combines the economic, environmental and social components of the selection and realization of human development indicators a new development paradigm that reflects the vital importance of a systematic approach. Here is the talk the radical change of the values and goals of modern society, direction and content of various spheres of human activity based on the epoch of the new era of human

development. Blossoming, justice and healthy environment (environment) express a desire for a better future. Sustainable development with the correct choice and proper politics making it possible to realize this desire. Sustainable development the needs of today's generations are expected to be met without interfering with the possibility of future generations to meet consumer demands. The philosophical essence of the sustainable development concept is to use the planet's natural resources efficiently and economically, to preserve the environment, and to improve the quality of life of present and future generations. In addition to the sustainable development involves the wishes of people's needs and socioeconomic and ecological development aimed at maintaining peace on the planet. The basis for a sustainable development concept is a trio of triangular ecological, economic and social issues. Food security is the main social and economic issues of sustainable development. One of the main tasks facing each state national security of the country. An important part of the national security system that covers a wide range of issues is ensuring food security. The history of different countries shows that indifferent attitude to the problem can lead to public shaking of the state. When it comes to "food security" a set of measures that ensure the continuous, long-term and sustained repayment of the population's basic nutritional needs within the framework of defined quality standards. The concept of food security includes three elements: availability of high quality food products; families can get this food; similar nutritional composition of food. At the family level, this is a problem that is not enough, in other words, poverty. Food Program in Azerbaijan has been implemented since 1996. This program focuses on the long-term improvement of food security, along with sustainable agricultural development and poverty reduction. Food security means that people have access to sufficient physical and economic access to quality food products at any time to an active and healthy lifestyle. One of the main elements of this is the fact that each citizen has the physical and economic access to quality food, as well as the economic independence of the country's national food system, its dependence on the basic foodstuffs, reliability, protection against food, seasonal, weather and other factors, , the development of the national food system in the expansion of production. Food security is one of the basic human rights, one of the basic human rights. Therefore, ensuring this right is one of the most important tasks of the Government of the Republic of Azerbaijan. "Food Safety Program of the Republic of Azerbaijan" Covers the commitments and goals of the Government of the Republic of Azerbaijan in food security. The objectives of the food security program are:

- Implementation of measures aimed at increasing the production of local agricultural products and maintaining reasonable prices for food products;
- Establishing a system to prevent acute malnutrition.

To achieve food security, the Government of the Republic of Azerbaijan undertakes to implement the following two stages:

1. Introducing short-term and mid-term transition measures to ensure food security during reform. This is mainly provided through private farming and entrepreneurship. At this stage it is planned to conduct the following activities: control over implementation of relevant laws; specification of budget allocations required for achieving anticipated preliminary results; Consideration of application of temporary tax privileges in food production; assistance in obtaining loans for the production, processing and sale of food products; food products producers' protection from food imports; restructuring of mutual debt between enterprises; enhancing consumer protection; implementation of additional measures for emergency preparedness by establishing a relevant information system in the area of food safety.
2. The main purpose of long-term measures in the field of food security is to increase the profitability and competitiveness of agriculture in Azerbaijan, as well as to integrate it into

the international economic system. Food security should be ensured primarily by improving agriculture and improving the food consumption situation in the country.

In order to achieve this, it is planned to implement the following four key actions: converting farms into institutions that meet the requirements of commercial and market economy, limiting phases for the agricultural and food sectors; the development of food production in the country and ensuring the competitiveness of agriculture; Carrying out public investment policy that contributes to the development of infrastructure in the village. Quality and safety of food products can be provided by applying single-monitoring monitoring of food products produced in the country and imported from foreign countries. It is essential to take the above measures to improve the nutrition of the population. The first strategic objective of the Strategic Road Map for the Production and Processing of Agricultural Products in the Republic of Azerbaijan, consisting of nine strategic goals, is to strengthen the institutional capacity to ensure food security. Proposals for the creation of the Food Safety Commission on this strategic objective have been prepared. At the same time, international experience on regular monitoring of risk assessment in terms of food supply and supply stability has been studied and a draft guideline on food safety monitoring has been prepared. In order to assess the production potential of food products, the production, import and export of agricultural products in the country has been analyzed and predictions for the future have been calculated. Food Safety Agency has been established to ensure food security in the country effectively. The main purpose of long-term measures in the field of food security is to increase the profitability and competitiveness of Azerbaijan's agricultural sector and to integrate it into the international economic system. Food security should be ensured primarily by improving agriculture and improving the food consumption situation in the country. However, experts do not consider the current level of subsidies to the state to be sufficient to ensure food security. Nevertheless, more subsidies are needed to achieve food security and the proper and efficient allocation of allocated funds remains an important issue. The system of food security of the Republic of Azerbaijan differs significantly from international requirements and advanced practices and can not fully ensure the safety of food products.Compliance with the requirements of the European Union and related international organizations and enhancing the safety and quality of the food security system and the parallelism of the various bodies in the field of food safety are essential. The system of food security in Azerbaijan does not meet modern requirements and there are duplications in this area. Specifically, food safety standards, sanitation and phytosanitary norms and regulations have been developed during the Soviet era and there was a need to improve in line with international requirements. One of the key points is the improvement of product inspection mechanisms during export-import operations. In particular, there is a need to adjust the products inspection procedures to the requirements of the World Trade Organization. Approved by the Decree of the President of the Republic of Azerbaijan dated December 6, 2016 “Strategic Road Map on Production and Processing of Agricultural Products in the Republic of Azerbaijan” in the field of food security control, it was planned to eliminate parallelism and establish an effective regulatory system. In this regard, the Decree of the President of the Republic of Azerbaijan "On Additional Measures to Improve the Food Security System in the Republic of Azerbaijan" of February 10, 2017, is expected to contribute to the improvement of the food safety system in the establishment of the Food Security Agency of the Republic of Azerbaijan. The Food Safety Agency will provide the following activities from January 1, 2018:

1. Normative regulation on safety of food products in the Republic of Azerbaijan (preparation and approval of sanitary norms and rules, as well as hygienic normatives) and risk analysis;
2. Carrying out hygienic certification work, as well as issuing quality certificates to foodstuffs exported to foreign countries;

3. Implementation of state control at all stages of food production in accordance with the risk level of the product on the basis of the protection of the rights of consumers of foodstuffs and the principle of "from the field to the table".

Along with that, the Cabinet of Ministers together with the Agency will prepare and submit to the President of the Republic of Azerbaijan a draft of "State Program for Food Security in the Republic of Azerbaijan for 2018-2025" within 6 months. In the preparation of the State Program, the following priority areas will be taken into account: - Adjustment of normative legal acts on food safety, including standards, sanitation, phytosanitary and veterinary norms and rules, to the International Convention on Plant Protection, Codex Alimentarius Commission and the World Animal Health Organization provision; Ensuring compatibility of food product conformity assessment system with international requirements; - classification of food products on risk groups (low, medium and high risk) taking into account international experience and identification of criteria for risk assessment; - improving the control system for the circulation of genetically modified organisms and their derivatives; developing and implementing control systems and mechanisms in accordance with the risk level of the product at all stages of food production based on the principle of "from the field to the table"; - Strengthening human resources in food security; - Strengthening and modernization of the logistics base for the safety of food products (including the expansion of the network of laboratories and the international accreditation of laboratories). It should be noted that the decree of the President of the Republic of Azerbaijan "On Additional Measures to Improve the Food Security System in the Republic of Azerbaijan" of February 10, 2017 also contributed to the determination of the exact boundaries of the distribution of powers to eliminate parallelism in the activities of different bodies. Thus, the implementation of state control and services in the area of veterinary, plant protection and quarantine (except for animal and plant products and raw materials) is carried out by the Ministry of Agriculture of the Republic of Azerbaijan, control over the safety of food products including animal and vegetable products and raw materials and the implementation of the exercise will be carried out by the Agency. The Cabinet of Ministers will prepare and submit to the President of the Republic of Azerbaijan proposals on improvement of the existing normative legal acts with the Ministry of Agriculture of the Republic of Azerbaijan and the Agency for elimination of cases of repetition of the powers of other state bodies and organizations during the supervision of this field within 4 months. In addition, the State Committee for Property Issues of the Republic of Azerbaijan together with the Agency should solve material and technical issues for the organization of the Agency, inventory the property of other state bodies and agencies that can serve the Agency's activity, submit proposals on the transfer of that property to the Agency within 5 months prepare and submit to the President of the Republic of Azerbaijan. At the same time it should be noted that assignment of the National Coordinator of the Codex Alimentarius Commission of the Food Safety Agency has been included among the tasks to be provided, which will serve to further deepen the activities in this area. As a result of the establishment of the Food Security Agency, which acts as a single supervisory body, it will improve the system of food safety in the country, increase transparency in this area, eliminate duplication and duplication, as well as measures to be taken in the "Strategic Road Map on Agricultural Production and Processing in the Republic of Azerbaijan" will be implemented successfully. The main purpose of long-term measures in the field of food security is to increase the profitability and competitiveness of Azerbaijan's agriculture, as well as to integrate it into the international economic system. Food security should be ensured primarily by improving agriculture and improving the food consumption situation in the country. However, experts do not consider the current level of subsidies to the state to be sufficient to ensure food security.Nevertheless, more subsidies are needed to achieve food security and the proper and efficient allocation of allocated funds remains an important issue.

Food safety problem has been solved in Azerbaijan. However, in the context of global natural disasters and warming, world countries should work together to build a sustainable food chain. Now, international experience in establishing a stable food chain is transmitted to Azerbaijan. UN Food and Agriculture Organization (FAO) praises cooperation with Azerbaijan. According to the cooperation document between the organization and Azerbaijan, which will cover 2016-2020, new projects will be launched in the near future. These projects have been working for over two years. Azerbaijan's biggest success in ensuring sustainable development is to reduce poverty. The development of agriculture in the country is directly related to the successful implementation of sustainable development goals. The government attaches great importance to the development of agrarian sector. 47% of the country's population lives in the village. 1.7 million people work directly in agriculture. Agriculture has a special share in the formation of national product in the Azerbaijani economy and the government is closely involved in all global projects to ensure food security in the world. The agrarian sector has entered the new stage in the country and the achievements of Azerbaijan in the agrarian sphere are exemplary. The state is always with the farmer. At present, a number of new projects in the field of sowing and livestock are planned to be implemented. Projects are also being implemented to increase employment in the agrarian sector, and special programs for the employment of women are envisaged. The achievements in agriculture in Azerbaijan are evaluated as a result of proper coordination among all sectors. Reports on various aspects of Sustainable Development were presented at the seminar. In the modern world, food security is shaped by global influences, with the effects of various social, economic, political, technological, biological, geographical, historical, ethnic, and spiritual roots. In this sense, his full and thorough study obliges several science fields. The analysis shows that from a theoretically-economic point of view, food security covers the system of relationships that includes the production, transportation, processing, distribution and consumption of food products. In the theoretical solution of this problem, the ratio between the size of food and population, the average norm of consumption of foodstuff, composition, food productivity, poverty line, food supply level and other issues are determined. In addition to these key criteria, the concept of food security includes the calorie level, quality, appearance, and other factors of food products. The fact that the food problem has such a socio-economic nature indicates that this issue is broader than the production of agricultural and food products. In general, the global problem of food problem is related to many socio-economic problems faced by different countries. Here are the issues of strengthening the industrialization and urbanization processes, changing the directions and dimensions of agricultural production, the reduction of the volume of organic food products, and other fateful and serious concerns. At the same time, the existence of natural resources, the level of economic development, the rate of harvesting, the level of armaments of agriculture, the use of advanced production methods, the employment and education level of the rural population, the regulatory role of the state in the agrarian and food complex, these and other factors, such as existence, have a crucial role. There are numerous negative factors that are of concern to the modern world of globalization. For example, global climate change, decline in food supplies, and the occurrence of various types of dangerous infectious diseases; deterioration of the quality of food products due to environmental degradation, sharp increase in their prices, and others. Such an activity has a considerable impact on the harmony of the 81. Indicators characterizing the activities of the food market, in particular prices, the cost of the consumer basket, farmers' revenues, are based on the priorities of the agrarian and food complex. In economic literature, sometimes speaking about the possibility of agrarian development in terms of food supply, in many cases the role of the consumer goes to the second plan. We think that the agrarian and food market is ultimately unwanted because it works for the consumer. Certainly, the adoption of consumers as a priority in different economic and technological systems can also lead to unpleasant consequences for those systems.

This is typical for the food market and the agrarian sector. The consumer's superiority in the food market is not the only factor. It is noteworthy that at the civilized level we are the intellectuals, to go in the backyard of consumer thought, and to think that it is unquestionable, is inexpedient. Adjustment of agrarian and food relations in the market economy is sufficiently multi-faceted. From the point of view of ensuring food security, state regulation of these relations is characterized primarily by the state support to agricultural commodity producers. This process is more successful in the experience of developed countries. It should be noted that the state assistance provided to agricultural commodity producers from the aspect of ensuring food security in the countries of the European Union is also sufficiently completed by the public procurement system. At present global food markets need serious ecological clean and high quality agricultural and food products. Generally speaking, environmentally friendly agriculture should not be understood as the production of pure natural products. It is important for the environment to preserve soil fertility in natural ways in 84 ways, and the preservation of good microorganisms, flora and fauna in nature. It is important to take measures in accordance with the requirements of the technical regulation on production, storage, transportation, processing, realization and import operations of all stages in ensuring the safety of the products. Ecologically Clean Products - Products containing harmful substances are considered normative products that are fewer than ordinary products. Ecologically clean products are derived from pure fertilizers, pesticides and other non-polluting areas. The products obtained from the minimal external contribution from natural raw materials can also be considered as environmentally sound. Eco, bio, and organic terms are different concepts that express the same process. The ecological integrity of the goods is marked by the marks on their labels. Observations show that some countries have greater potential for producing environmentally friendly food products today. The number of farms producing organic foodstuffs grows rapidly in Europe, Asia, Africa and Latin America. For example, 70 percent of the world's environmentally-friendly foodstuffs fall on North American and European countries.

3. CONSLUSION

Effective use of existing useful lands, including sowing lands, increasing the role of the national economy in ensuring food security of the population of the world countries and reducing dependence on the international market; It is expedient to design and approve national physiological norms for the proper assessment of food security; Increasing the economic activity of the able-bodied population, ensuring full employment is a key factor in food security; Ensure adequate availability and acquisition of safe, diverse, nutritious food, prevent the lack of access to clean water, sanitation and health care, proper nutrition for children and adults, as well as assistance in identifying proper nutritional choices; Taking into account the needs of a single global economy, the application of a regular organizational and regulatory arrangement on a global scale and across different regions and countries is one of the tools to rationalize the use of natural resources and address the food security problem. We consider the abstinence of the production method based on the principle of spontaneous competition and the opinion of economists conducting research in this area, considering that one-fifth of the world's population experiences food shortages and suffer from hunger, rapid population growth, natural resources depletion. Planned and regulated production relations can be considered as a key condition for the solution of a global food security problem; The main types of foodstuffs are the decline in the area of crops, the major part of the land is withdrawn from the sowing cycle, involving industrial development, infrastructure development, as a result of increased soil erosion as a result of intensive agricultural development in the 60-80s, new forest lanes the emergence of the need to create grasslands and the creation of the meadows has resulted from the increase in the population of the world demanding the expansion of cities, settlements, gardening and

related infrastructure; Environmental pollution also harms agricultural and food security. Many waste, gas and other substances are environmentally friendly. Climate warming in the future, melting of glaciers may lead to the 6-7 meters rise of the World Ocean, which means hundreds of cities and villages are flooded; About 1.4 billion people worldwide, including 43 million children, suffer from weight loss. About a third of them are facing obesity and are facing cardiovascular diseases, diabetes, and other health problems. According to calculations, loss of labor productivity and the loss of the world economy in terms of direct health expenditures are less than 5 percent of global income. Complete cutting of the root of the world is a difficult issue, but the investment to be able to justify itself at a high level. For example, according to the CCT estimates, if the world community invests $ 1.2 billion in micro-nutritional deficiencies for five years, it will result in better health, child mortality, and higher benefits for the future.

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THE DEVELOPMENT OF INTERACTION FORMS AND METHODS FOR INNOVATION ACTIVITY SUBJECTS IN REGIONAL INNOVATION SYSTEMS

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ABSTRACT

In this article, we systematize all the factors for the development of regional innovation systems and formulate the concept of innovative entrepreneurship. In the course of this research on issues related to an insufficient number of innovative entrepreneurs, an analysis was made of the main characteristics of programs of foreign universities that train specialists in innovative technological entrepreneurship. The results of this analysis showed that the basic principles of such programs are: Universities form an educational group of students in such a way that students of economic and natural sciences study at the same time in one group. For example, the University of Tennessee (Martin, USA) determines the contingent of students on the basis of 50:50. One of the leading programs in the field of technology entrepreneurship, the Georgia University of Technology program, forms groups in a way that each of the project teams includes at least three people: a student enrolled in the MBA program, a student in law school and a student in the natural sciences program or engineering specialties. The educational program is structured in such a way as to maximize students' practical skills in assessing market and technological prospects, skills in preparing business plans and developing the final product, and skills in conducting future business. Despite the diversity of educational programs aimed at participants of innovative business, all technological entrepreneurship programs are designed mainly for managers of innovative projects, and the objectives of this training are, as a rule, to transfer to the audience information about the rules and methods of functioning of innovative product markets necessary skills for managing innovative projects. However, it should be noted that it would be deeply mistaken to equate such participants in the innovation process as an innovation manager and an innovative entrepreneur.

Keywords: *subject, regional, innovation, renovation*

1. INTRODUCTION

This article is devoted to solving problems and, accordingly, is aimed at achieving the main objectives of this paper, the proposal of the development of interaction forms and methods between innovation activity subjects (IASs) in regional innovation systems (RISs). It is obvious that development of interaction forms and methods for innovation activity subjects in regional innovation systems cannot occur in isolation from development of the concept of an innovation business ecosystem. Therefore, creation of Regional Centres of Incubation and Acceleration (RCIA) on the way to develop the interaction of IAS in RIS is the main task. Such RCIA must necessarily be created on the basis of a public-private partnership in the legal form of a joint stock company (OJSC). The commercial form of organizing RCIA will allow us to hope that the activity of private regional business will be high, since in the case of successful development of this project, investments in the development of RCIA will be rewarded with dividends. The main income of RCIA will be associated with the possession of a certain number of shares of innovative enterprises that will be developed on RCIA platform. The author has placed Regional Centre for Incubation and Acceleration in the core of regional innovation system as the main platform for the development of innovative business in the region and has not proposed using, for example, the leading regional university for this purpose, as it was done in Silicon Valley or Boston, Massachusetts, USA (Stanford University and MIT, respectively).

Also, the author has not considered the largest production association forming the basis of a regional industrial innovation cluster as RIS platform, as it was done in Germany. The main reason for which the author has been forced to offer to create RIS platform 'from scratch' is the complete technical and psychological unpreparedness of regional universities and industrial enterprises to the development of modern RIS. Therefore, all attempts to remake the systems of regional Russian universities and industrial enterprises that had been folded over the years and even over generations to the developmental needs of modern RISs are of high risks associated with waste of time and enormous financial losses, as well as serious tests for these universities and enterprises. This is confirmed by the absence of examples that speak about the dynamics of the development of technological platforms in Azerbaijan which have been launched since 2011.

2. DESCRIPTION OF THE FUNCTIONING OF THE REGIONAL CENTRE FOR INCUBATION AND ACCELERATION (RCIA)

The central element of RCIA functioning as a self-organized innovation system (see Figure 1) is the Regional Innovation Centre (RIC). It is assumed that access to all resources and services of an individual RIC can be provided by any representative of IAS, not only in the region in which the RIC is located, but also in any other region of the country, as well as IASs from other countries. It is assumed that optimization of the regional innovation ecosystem is achieved through the use of electronic capabilities to provide RIC with projects in a given format. It should be noted the quality level of the projects that will come to RIC; RIC will receive and consider innovative projects at any stage of their development. Organization of the work of the RCIA is also different in that it incorporates such a mechanism that would allow the authors of ideas to contact RIC again and again. Therefore, a necessary condition for the successful launch and operation of a self-organized ecosystem is that all the mechanisms of this system, reflected in Figure 1, would be fully focused on active work with the authors of innovative ideas and projects.

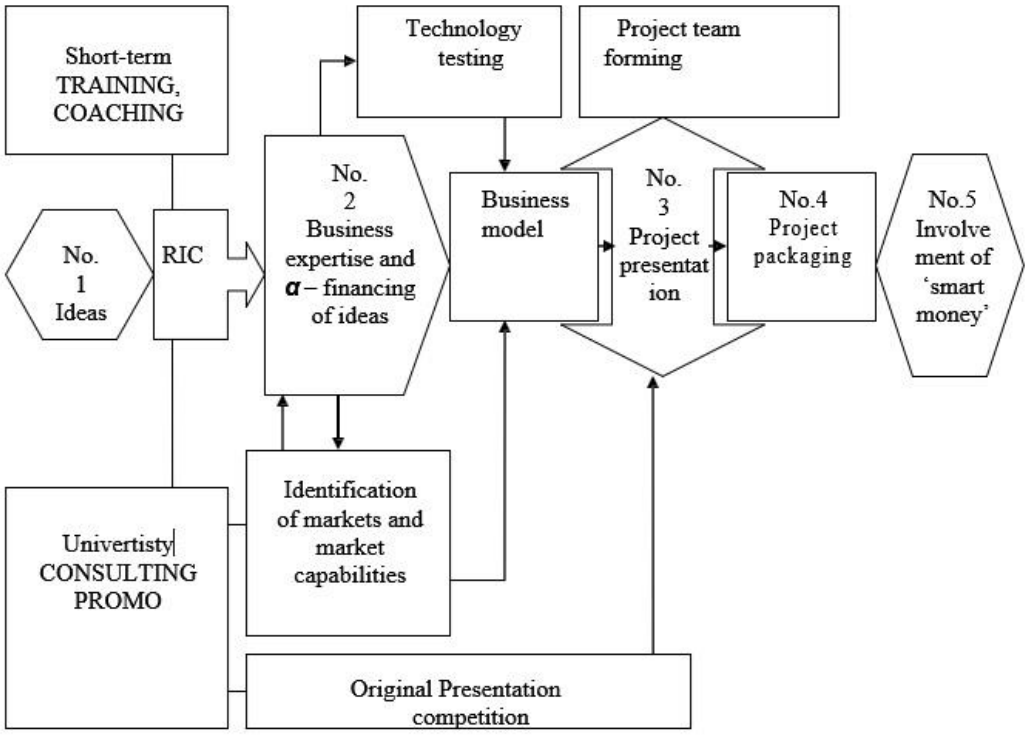


Figure 1: Organizational model of a self-organized regional innovation ecosystem based on RCIA

The main task of the regional centre for incubation and acceleration is to ensure that the flow of projects in RIC does not run out over time. To do this, certain work should be done with the applications of the project initiators. It is necessary that the authors of the applications receive mandatory feedback after each contact with RIC. On the other hand, it is clear that a large volume of applications cannot be processed by an individual specialist or a small group of specialists who would be responsible for initial and subsequent selection of applications. Therefore, it is difficult to imagine a solution to this problem without the active and systematic assistance of the university environment, where specialists and their assistants from a number of senior students specially trained to work at RICs would participate in the process of selection and accreditation of applications on innovative projects for RICs. Below are some explanations of Figure 1.

2.1. Element No.1 - 'Ideas'

A summary of projects can be received at the entrance of the innovation centre both remotely, via the Internet, and through personal delivery. The authors of innovative ideas can be not only residents of a particular region and representatives of other regions, but also authors of innovative ideas from other countries. Therefore, the languages of presentation of the summary of business plans for innovative projects should be Azerbaijani and English. 'Students of Business Departments' are students, graduate students of intercollegiate departments who have received or receive their first technical education at universities accredited by the innovation centre and who receive a second economic education at the intercollegiate department at any leading regional university.

2.2. Element no.2

Accredited experts are representatives of the venture business community in the region, country and foreign countries. The main tasks of experts should include an assessment of the business prospects of a new idea and technology, an assessment of a potential market, and the formulation of a business model. In addition to assessing the potential of the business idea of the project, experts should be actively involved in facilitating the allocation of financial resources for *a*-financing of projects. In addition, experts should be involved in master classes for students at the intercollegiate department. Today, *a*-financing of innovative projects at the seed stage is carried out on a regular basis in the country by the Science Foundation. It is proposed in the Organizational Model to combine the efforts of RIC and Science Foundation with the work of the expert group. It is necessary to involve in the work of the expert group not only scientists as organized by the Science Foundation today, but also the venture business community.

2.3. Short-term seminars

These are 1-3-day seminars, webinars, short-term courses that should be held on the territories of universities accredited by RIC. Holding seminars in the territories of accredited universities will allow attracting to this topic not only students from intercollegiate departments and project participants, but also students from other universities interested in the technology business. Attendance of seminars must necessarily be paid, however, the price of seminars must be lower than in the commercial market.

2.4. Element no.3. - Project accreditation stage

Before the project will receive accreditation in RIC, it is assumed that project participants (innovative teams) should go through five stages which will be organized and coordinated by RCIA. Thus, innovative teams will need:

1. To make a presentation of a project at a national innovation competition;
2. To take part in specialized team building events for innovative projects similar to the projects

Start!, Start up Weekend, Commercialization Reactor and others. All this will allow applicants 'try on the life of a start-up' participating in the abovementioned activities for several days, as well as prepare and make a presentation of the project to its potential investors;

3. To make a presentation to national venture capital investors on Smart Money Fairs which are yet to be organized in Russia;
4. To make a publication about a project in a specialized venture media. This will allow fixing the event of the birth of the project and notify the interested parties of the project;
5. To present the project at the international venture fair to foreign investors. This will enable the project team to prepare a presentation of their project in English and test the international component of the project business idea to international experts.

The main result of all the abovementioned stages will be considered not so much the success in attracting funding for the project, as the project team formed. Without a formed team, further development of the project will be impossible and, as a result, attracting venture capital to the project will be extremely difficult. Original Presentation contest should be held regularly among authors of innovative ideas and students of intercollegiate departments. The purpose of this contest is to attract project authors and students to modern technologies for conducting presentations for investors. Visibility, simplicity and persuasiveness, this is what companies lack today in presentations to investors. Therefore, investors must certainly be present in the jury of Original Presentation contest.

2.5. Element No.4 - 'Project Packaging'

At this stage, the project team should have the following three components: a presentation for the investor, a business plan and a project team prepared for the official proposal for future investors.

2.6. Element No.5 - Attraction of 'smart money'

It is assumed that investors of start-up projects will be businessmen who understand the logic and specifics of innovative technology projects, and the funds provided by such investors are called 'smart money.' These investors include, first of all, business angels and venture funds which may relate not only to the region where the authors of the projects live, but also be residents of other regions or even other countries. For the effective functioning of the innovation business ecosystem, the main idea should be laid in its mechanism; the project should not reach the investor bypassing at least the first three stages reflected in Figure 1 (stages - business expertise, team building and packaging). This important principle will allow projects to be dynamic when searching for investors and not to depend on individual random offers of those investors who far from understand the development of innovative projects.

3. TECHNOLOGY OF THE REGIONAL INNOVATION CENTRE (RIC) OPERATION

The successful operation of RICs lays the foundation for the successful functioning of the entire RCIA and, as a result, of the regional innovation ecosystem. Therefore, below is a model of RIC operation which is formed, among other things, on the basis of practical experience which the author of this dissertation has acquired working in several federal and regional investment companies and considering applications from applicants. The main stages passed by the application of financing applicant:

- Registration of Application for Financing. At this stage, it is assumed that the applicant must submit an application in the prescribed form in Russian and English in RIC (Figure 2) (Stage 1).
- Signing of Cooperation Memorandum take place in Stage 2.

- At the next stage, projects are sorted into stages of development and industry property: stage 'idea', phase '**α**-testing', phase '**β**-testing' (Stage 3).
- Training of project participants (courses, seminars, and webinars) takes place on Stage 4, and drafting a 'project summary' at Stage 5.
- The next stage passed by the application is related to the preparation of two project presentations, PowerPoint and Video-presentation, with the same capabilities as in Stage 4 (Stage 6).
- At Stage 7, the project is assigned an ID code which will remain unchanged until the authors of the project provide a good reason for this (change of project founders, change of concept or idea of the project).
- At the next stage passed by the application, a summary of projects and presentations is sent out either directly to investors or experts for further development. The obligatory component of this stage is guaranteed feedback from investors and experts accredited by RICs in the direction of the authors of the project (Stage 8).
- Stage of connecting the project to service capabilities of RIC is provided at Stage 9,and the accreditation of the project by RIC is at Stage 10.
- After receiving accreditation at RIC, the project can receive targeted development grants and recommendations from RIC for potential project partners (Phase 11).
- The archiving of application projects from the authors of the innovative idea takes place at Stage 12.

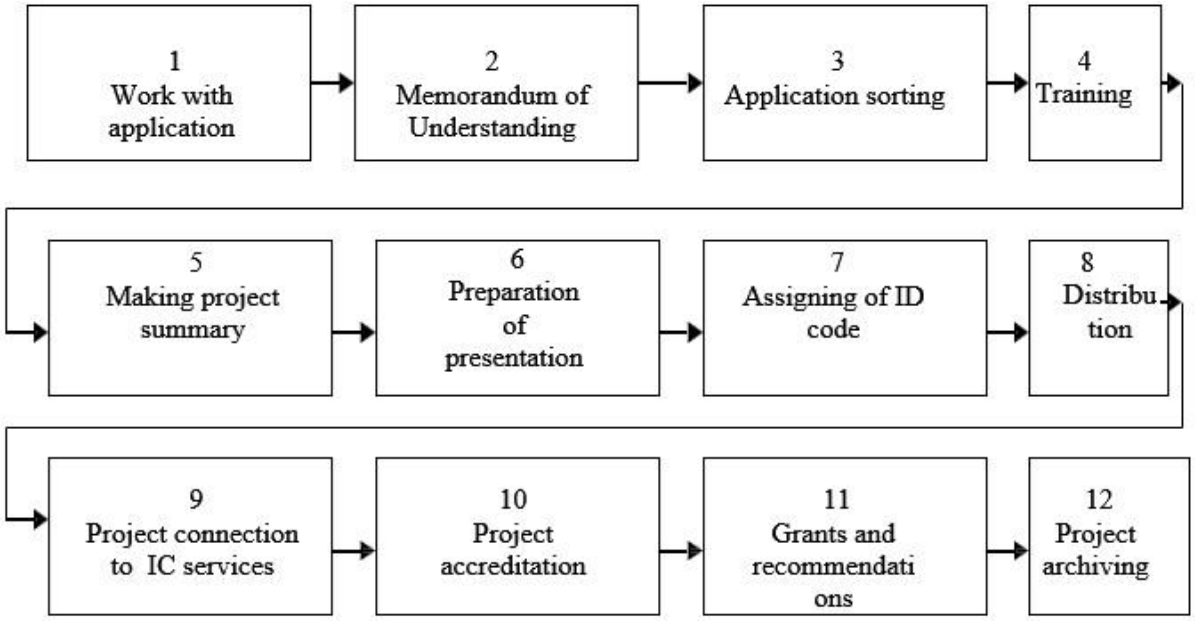


Figure 2: Model of organizational processes of RIC when the application is received from the authors of the innovative idea

The work of RIC should be organized by the venture community of Russia itself so that any author of an innovative idea, regardless of place of residence, could find attention to himself/herself and his/her idea in this centre. A satisfactory performance of an innovation business ecosystem can be considered as its ability to carry out a project from idea to market. Therefore, in order for the ecosystem of a regional innovative business to reach the level of self-organization, it is necessary to develop it step-by-step. At the first stage, the work of the subjects of the innovation system (SIS) in the direction of any industry specialization that would be consistent with RIS technological strategy should be adjusted. Development of a particular industry specialization implies the creation of an appropriate qualitative examination of projects

and other elements of the innovation business infrastructure associated with the chosen specialization. After the launch and adjustment of the first SIS will be considered complete, it will be logical to consider the creation and development of the next self-organized RIS with its specialization in another region of country. Thus, the task of expanding the range of RIC specializations over the entire range defined by NIS can be solved step-by-step. One of the advantages of RIS specialization is that the precise positioning of RCIA will allow involving in its work the maximum number of partners (universities and experts), both domestically and abroad, in a relatively short time. RIS specialization will allow laying a solid foundation for the further development of regional innovation clusters, as well as involving in the creation of a modern and rapidly developing international system of technological audit (due diligence), referred to as Proof of Concept Centres (POC).

4. MODEL OF CONVERSION GROWTH OF INNOVATIVE BUSINESS IDEAS

One of the main tasks that the proposed above model of ecosystem of a regional innovative business solves is to solve an important problem, an increase in the share of projects that managed to go through a difficult path from the first presentation to investors to getting funding, that is, an increase in the share of business ideas conversion. Successful conversion of business ideas into technological start-ups is possible only with the direct financial interest of each participant of the innovation process in the success of the project. Figure 3 offers a model of mutually beneficial cooperation among the participants of the innovation process. A new element of the interaction of IAS is that, as expected, all participants in the innovation process are project investors, including experts and consultants. It is this approach, in which the authors of the innovation project appeal to each participant of the innovation process as an investor, determines the vector of project development and contributes to the effective promotion of the project to its success. Settling by start-up shares for rendered consulting services contributes to the solution of two parallel tasks. Solving the first task allows attracting the best experts and consultants to technological projects, and solving the second task promotes development of the institute of protecting start-up minorities because after acquiring startup shares the consultants and lawyers themselves become project shareholders. Therefore, the protection of the minorities' rights will occur by means of consultants and lawyers themselves, competent people sophisticated in the protection of corporate interests. Such an approach in the interaction of IAS will contribute to the development of the institution of minorities' rights in Azerbaijan. In this light, the present practice of allocating grants to help start-ups for consulting can be considered ineffective in the long term, because it is much more effective to contribute to the development of projects by including consulting structures in project shareholders.

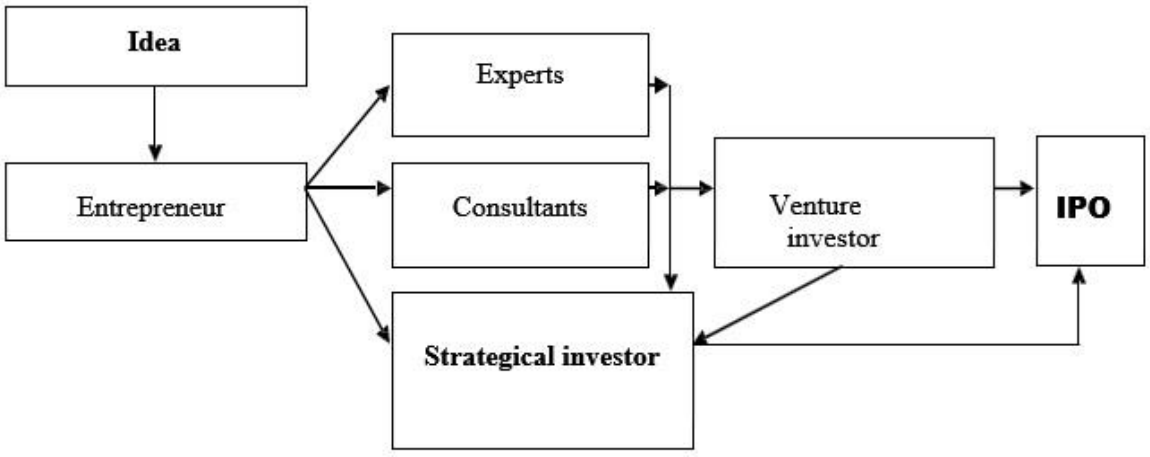


Figure 3: Model of conversion growth of innovative business ideas

From Figure 3 it can be seen that the appeal to a strategic investor occurs twice. For the first time, in order to draw the attention of a strategic investor to the project and obtain a preliminary Memorandum of Cooperation which will be necessary in the process of attracting investors to projects. The second time is when the project authors appeal to a strategic investor in order to exit investors from the project after the project has exceeded the break-even point and shows steady long-term profitability. The conversion growth approach proposed by the author (Figure 3) can significantly increase the proportion of invested business ideas and projects.

5. MODEL OF THE GENERATION 6 INNOVATION PROCESS (6G)

The following proposal for development of forms and methods of interaction between IASs in RIS is connected with the development of the mechanism itself of the innovation process. Obviously, creation of regional centres for incubation and acceleration contributes to the process of RIS self-organization, but does not define the model of interaction between IASs. Therefore, the paper has proposed a solution for development of the innovation process referred to as 'Model of G6 innovation process' (see Figure 4 below). The model of the innovation process is based on an alliance of medium and small businesses that are part of the syndicate of corporate venture investors (SCVI) which is supported by venture funds with the participation of public and private venture capital.

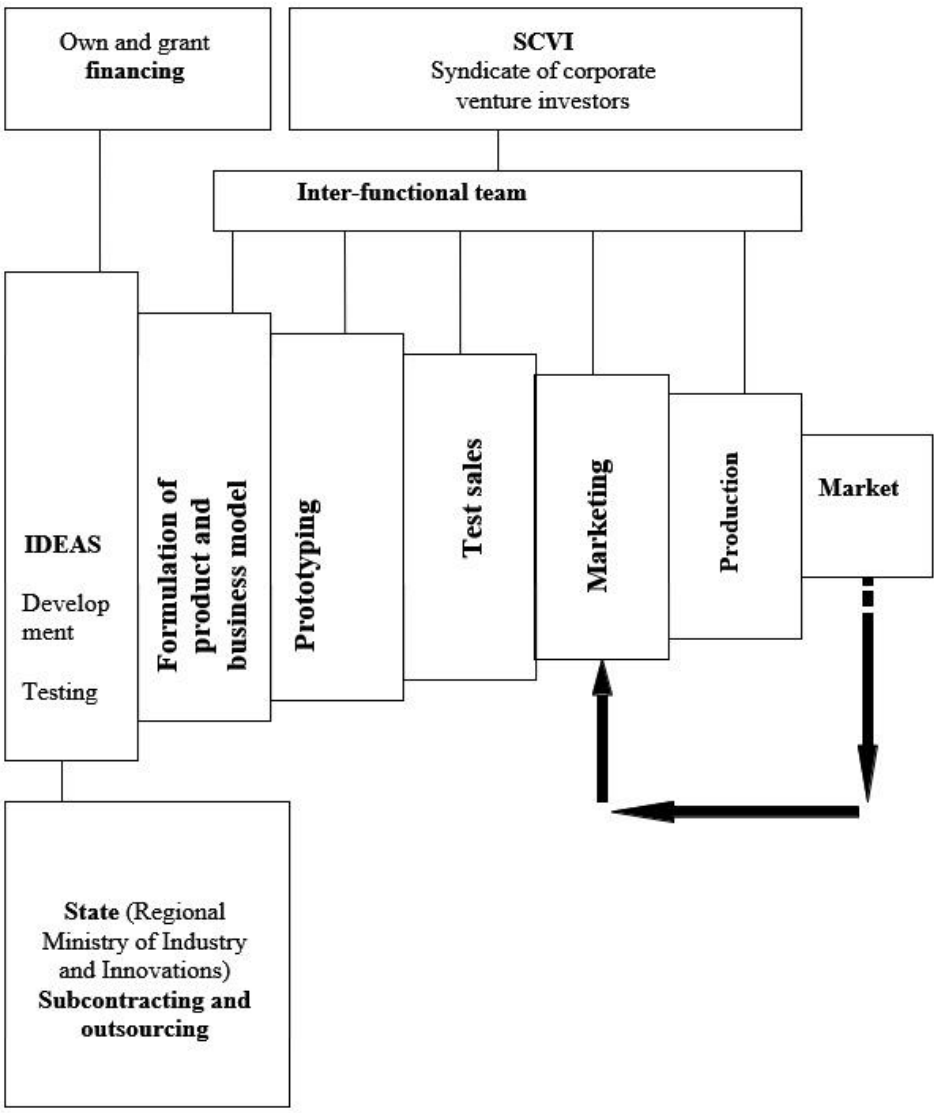


Figure 4: Model of Generation 6 innovation process (6G)

In Figure 4, you can find not only the traditional components of G4 and G5 models according to R.Rothwell, such as 'Interfunctional team', organization of 'strategic alliances', as well as the concept of 'funnel of ideas', but also completely new elements. The new elements include the block associated with the creation of the Syndicated Corporate Venture Capital Investment (SCVI), which includes not only the capital of certain small and medium businesses in the strategic alliance, but also the venture capital of public and private venture funds. The appearance of state investors in the alliance as a participant in the innovation process is a necessary element of success in the Russian context. The imperfection of current legislation regarding transfer of IS rights from public universities to private companies leads to the need for active participation of the state in innovative projects. Active participation of the state in the innovation process will also allow significantly expanding the funnel of ideas at the input by increasing the competence of the alliance of medium and small companies in the face of the university and academic communities. Today, fearing the legal consequences, the overwhelming majority of scientific state institutions do not wish to enter into negotiations with private business for the purpose of financing and developing scientific and applied designs. Another new element of the model of Figure 4 is the element 'Test sales.' This element conveys the philosophy of the work of the classic venture capital fund which moves the traditional element of the innovation process 'Marketing' back at a later stage. Venture funds prefer to conduct 'reconnaissance by force' rather than by interviewing focus groups of potential consumers of a new product (service) or through other traditional marketing tools. With regard to the element 'Formulation of the product and business model', I would like to emphasize that today innovative teams often formulate the product in isolation from the business model of the project. Such an approach leads to an overestimated project cost at 'Prototyping' stage. Excessive costs at the initial stage of product development create serious risks for the project to be in the portfolio of investors' alliance companies. In order to exempt from additional taxation and unnecessary legal risks, in Figure 5 below we give the legal form, according to which it is recommended to consider applications from the authors of the innovative ideas of the alliance, where SCVI will be registered in the form of a managing company (MC), i.e. as 'Managing Fellow' (GP partner), and the participation of legal entities, the founders of this alliance, can be legally registered in the form of non-managing partners - Limited Partner, LP partner. The executive director of SCVI can be the manager who is appointed by the Board of Directors created from the founders of SCVI. Since shareholders are financially involved in the functioning of SCVI, this structure takes on a form similar to the structure of a venture fund where the shareholders (LP partnerships) are representatives of private business - syndicate of corporate venture investors.

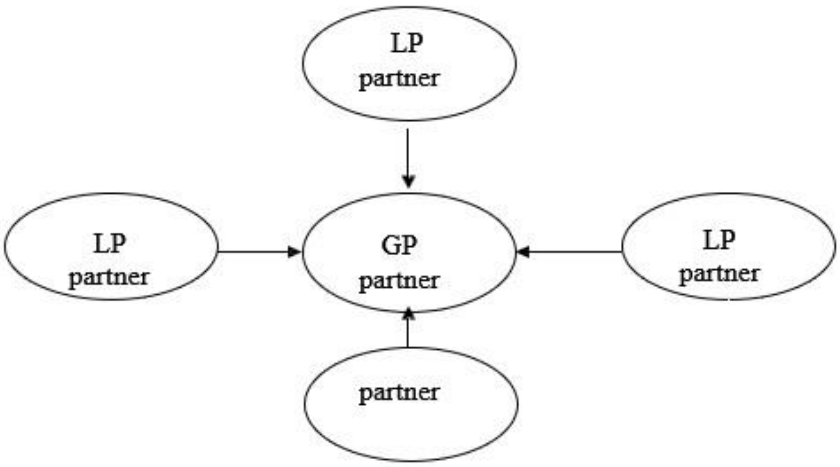


Figure 5: The traditional scheme of the venture fund operation

6. SYNDICATED R&DS ASSOCIATION FOR MEDIUM AND SMALL COMPANIES

One possible practical application for *6G* innovative process model can be a project on the organization of Syndicated R&Ds Association for medium and small companies. Today, in practice, solution of the most difficult problem of organizing R&D by small and medium-sized companies is impossible both from a financial and organizational point of view. In this regard, in Azerbaijan there is a serious problem of attracting private investment in cities remote from Baku over a distance of more than 200 km. Private venture capital in such towns is small and, as a rule, consolidated in certain directions. On the other hand, in regional cities with developed scientific and technical potential there are a large number of inventors who are ready to participate in projects for the use of scientific and engineering discoveries for applied purposes. As a result, an imbalance is created between the investment and innovative capabilities of such cities. In the conditions of the development of economic relations in the form of 'open innovations', all the intellectual capital of such territories is subject to erosion and withdrawal either in Baku or in the innovation centres of other countries. The author proposes a new organizational model of the technological business allowing medium and small companies in the context of 'open innovations' paradigm become active participants in the innovation process and organize joint activities to develop their R&Ds. Since such an association is created with the involvement of financial resources of various companies representing strategic partners, this form of organization of R&D may be called Syndicated R&Ds. The idea of the model lies in the plane of cooperation (strategic cooperation) between participants in innovation processes based on the regional innovation business ecosystem. The idea of a syndicate organized by small and medium-sized companies is both to develop own technologies and to attract third-party innovative ideas either for the development of the current business or to solve issues of related or unrelated diversification. Thus, it can be concluded that Syndicated Research and Developments may become new modern regional innovation clustering centres in Azerbaijan. These associations will be established by strategic alliances of private medium and small companies in the region that are interested in their own development (Figure 6). The quantity and quality of such associations depends on the degree of diversification and the scale of the local business. In our opinion, the strategic alliance will include leading regional medium and small companies that do not compete directly with each other and are united by a common goal, search for new innovative ideas, new products and new business models. In this regard, there are two possible schemes that allow such an alliance to be sustainable. The first scheme is valid when companies in the alliance make up a
vertically integrated partnership of companies:

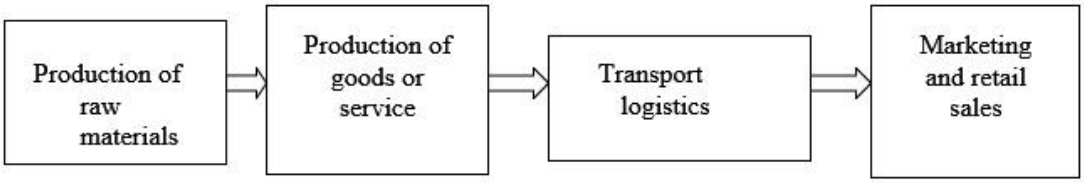


Figure 6: Alliance of vertically integrated companies

The second scheme operates when companies within the alliance will be united by horizontal integration around the idea of mastering a new, highly profitable technology that will be of interest to all members of the alliance. The legal model that is best suited for Syndicated R&Ds Association proposed in Figure 7.

Figure following on the next page

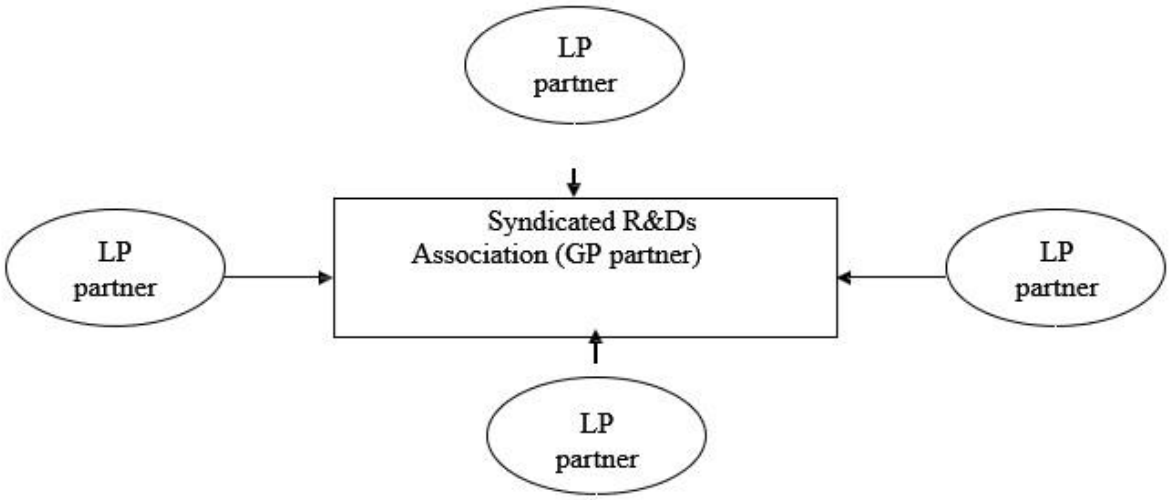


Figure 7: Organization scheme of Syndicate Research and Developments Association (SRA)

In this case, direct competitors occupying various niches and having no visible prospects for overlapping niches can join the alliance without fear. The main task of such SRAs is not so much to attract new innovative ideas for the needs of the syndicate rather than to examine and select innovative ideas that correspond to the mandate of the management company (GP partner). Therefore, in the 'Funnel of Alliance Ideas' in Figure 8, not only ideas from their own enterprises, but also ideas that come from Academic Institutes, local universities, private innovators and, certainly, from regional innovation centres (RICs) are displayed. At each of the four stages which innovative ideas pass active participation of venture capital funds and government institutional representatives is desirable. This will facilitate more active participation of authors of innovative ideas related to government and corporate organizations, cooperation and joint cooperation.

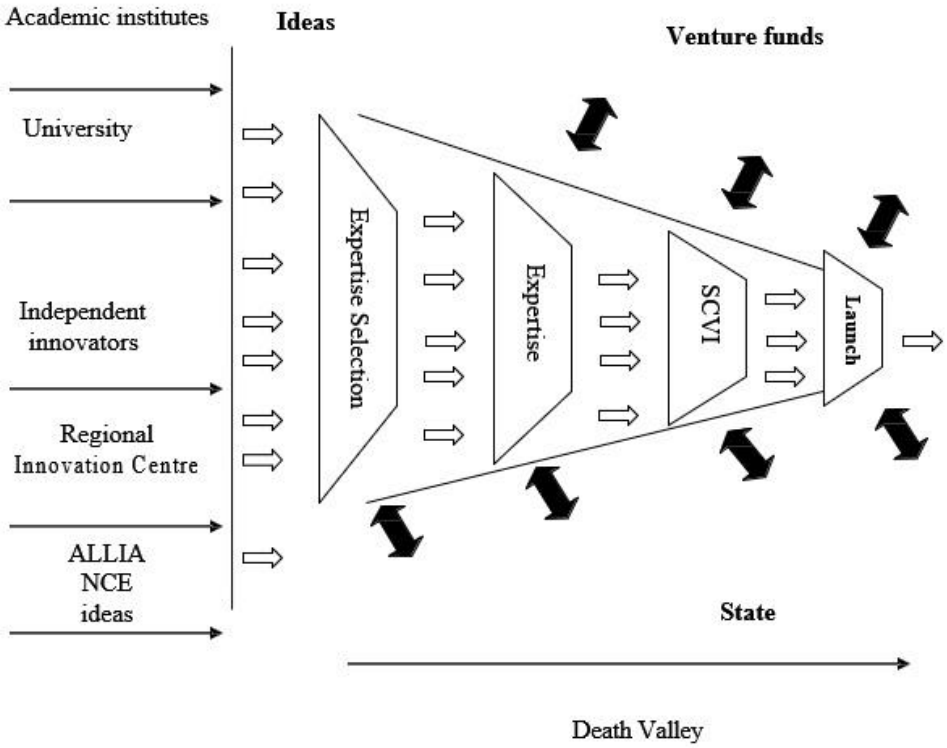


Figure 8: United funnel of ideas of Alliance

7. THE PRINCIPLE OF OPERATION OF THE SYNDICATED RESEARCH AND DEVELOPMENTS ASSOCIATION

Above, we have mentioned the possible use of the idea of strategic alliances of SMEs based on SCVI. We present a detailed scheme of the principle of operation of the Syndicated Research and Developments Association (herein after referred to ass SRA Figure 9 and 10)

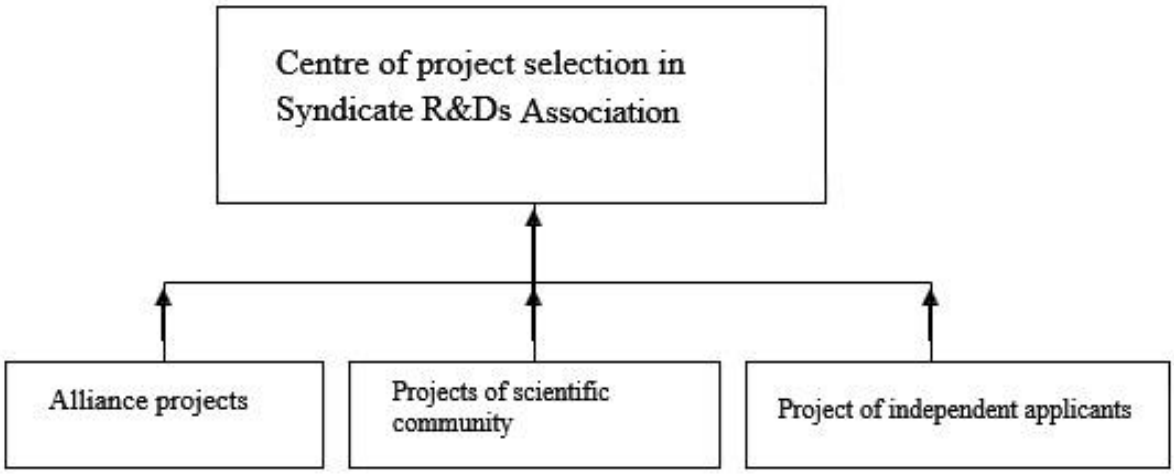


Figure 9: Functional diagram of project sources for SRA

The organizational chart of Centre for selection of ideas and projects of SRA is as follows:

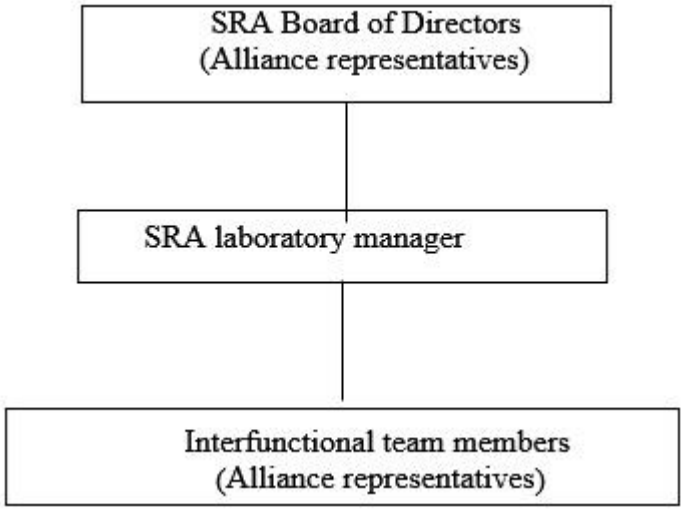


Figure 10: The organizational chart of Centre for selection of ideas and projects

It is obvious that the implementation of the project of SRA will be associated with attracting the necessary financial resources. In our opinion, SCVI model can be recommended for innovative development not only of developed regional large megalopolises, but also of scientific closed territories, academic complexes, i.e. it has a socially significant character. Therefore, it is possible to support the initiative on organization of DOS by special state grants. The author proposes to limit duration of the project for allocation of grants to arrange the work of SRA and SCVI Foundation to five years with the possibility of prolongation if the working structure of SCVI Foundation is established in the first five years and the first start-ups start receiving funding from SCVI Foundation.

8. WAYS TO ESTIMATE AND MEASURE INNOVATIVE AND TECHNOLOGICAL TRANSACTION COSTS

In the scientific literature, the issues of quantitative estimates of transaction costs are not given sufficient attention. This is due to two reasons. The first is related to the complexity of quantitative estimates of a number of transaction costs, and the second reason is the insignificance of transaction costs compared to other costs of a firm during certain periods of the firms' activities. This article attempts to fill this gap for which a number of approaches are proposed that take into account the qualitative and quantitative values of the transaction costs of innovation entities in the process of innovation. Taking into account the specifics of the technological business, we give a typology of innovative technological transactional costs consistent with the terminology and needs of the technological business below. We will explain the content of the proposed classification for each component separately.

8.1. Costs of searching for information and drawing up a business plan for a technological project

In terms of the development and launch of a new product on the market, information about potential buyers and organization of the distribution network is key to attracting venture investors or other project stakeholders to the project. Before a potential investor receives information about an innovative project and a contract is concluded with him/her, we need to have information not only about where we can find potential buyers and sellers of relevant goods, but also about production factors (labour, capital, land, entrepreneurial abilities, information). Next, we need to understand the level of prices for innovative products. As a result of the implementation of the first stage of project development, costs arise that consist of the time and resources required for conducting information retrieval, as well as losses associated with the assessment, incompleteness and imperfection of the information acquired. In the case of the development of a technological project, information on certain issues in itself does not represent a large commercial interest until it is transformed into a business plan for the project. Business plans are most often addressed to investors and their preparation has a number of specific differences and requires certain knowledge, which, as a rule, project initiators do not possess. Therefore, it is often not clear to the project initiators what information they need to have in order to proceed to the next stage of project development. All this entails an increase in the transaction costs of the project. At the initial stage of development of an innovative project, the costs associated with negotiating are the most tangible among other possible costs. The search for potential partners in the project (investors, financial consultants, lawyers, patent specialists) involves not only the problem of finding the most suitable partners for a particular project, but also the ability and knowledge of how to negotiate and what to expect from them in each particular case. The main instrument for saving such costs, standard (model) contracts, as a rule, does not work in the technology business. Often, at the initial stage of technological project development, key highly qualified personnel is offered either options or company shares in addition to wages which cannot be high at the initial stage of project development. Otherwise, we will not succeed in attracting highly qualified personnel to the project which will certainly affect the prospects for development of the project. All this requires additional knowledge from the project initiators and entails an increase in transaction costs during development of technological projects. The final stage of negotiation is 'packaging a technological project', that is, the analysis of the project viability and its comprehensive assessment, definition of a project financing scheme, risk analysis, as well as modelling, development of a project marketing plan suitable for all project participants, including venture investors. As a rule, description of the project packaging is made in two languages: national and English. All this together also leads to an increase in transaction costs at this stage of the project development.

Such costs in the technology business are known as due diligence costs. There are such types of audit as business, technological, legal, tax and due diligence. These costs include the cost of appropriate measuring equipment, measurement, implementation of measures to protect the parties from measurement errors and, finally, the losses from these errors. The cost of measurement increases with increasing information accuracy requirements. This category includes the costs of registration and protection of property rights, including intellectual property (patents, know-how, trademarks, and copyrights). The costs of maintaining lawyers, experts and the costs of possible legal costs, international arbitration, interaction with government agencies, time and resources needed to restore the violated rights, as well as losses from their poor specification and unreliable protection. Since innovative projects, as a rule, tend to focus on international markets, there is a need for international patents and protection. It is known that development of any economic system requires the conditions, prerequisites and tools for transformation. Another direction for development of innovative entrepreneurship is related to legal aspects and problems of technological entrepreneurship. In this regard, Russian legislators are required to achieve greater homogenization of national rules of law and laws with international norms and laws in order to ensure national innovation projects with greater legal freedom while bringing their innovative products to international markets.

8.2. Business innovation

However, in addition to the need to develop the scientific and technical potential of certain regions of the country, the studies conducted by the author have showed that it is also necessary to improve drastically the overall business climate in all regions of Russia which will ensure the development of the regional technological policy towards minimizing innovative technological transaction costs. Further, I would like to comment on the prerequisites for conducting innovative entrepreneurship in Russia shown in this study. The main prerequisites for conducting innovative entrepreneurship in Russia are associated with positive signals that come from the state in this direction, as well as with the emergence of notable success stories in the country's technological entrepreneurship (yandex.ru, mail.ru, Kaspersky Lab, ABBYY and several other companies). In conclusion of the discussion on the conditions for the conduct of an innovative business, I would like to dwell on the issues related to development of technological entrepreneurship infrastructure. Thus, with regard to the conditions for conducting innovative entrepreneurship, it can be concluded that all the necessary conditions for the successful development of this type of activity in our country have not yet been established. Summing up, I would like to comment on the willingness of practical tools to transform the innovation business ecosystem in the country. The tools for developing technological entrepreneurship include the development and efficiency of the forms of interaction between IASs in RIS. In the present study, the author shows the directions and tools for development of RIS, and also presents various forms and methods of interaction between IASs in regional innovation systems.

9. CONCLUSION

1. It has been revealed that further development of IAS cooperation and development of technological entrepreneurship in RIS is impossible without building a self-organized regional ecosystem of innovative business. The article shows that Regional Centre for Incubation and Acceleration (RCIA) in which a regional innovation centre RIC will be created can become the basis of such an ecosystem.
2. The concept and model of a self-organized regional system and RCIA are shown.

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NATIONAL WEALTH IS THE BASIS OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

The national wealth notion and increase ways have been historically thought by the economists. One of the advices for entrepreneurs is "recline to your assets". When an entrepreneur establishes and improves his activities, he should use the assets as the base of development. This success key saying at the level of entrepreneur, I think, can also be attributed to the country. The category of the national wealth is macroeconomic category that measures the aggregate assets in the country. One of the main questions in the economic theory is that what is the wealth, how it is calculated, and what is its source. Mercantilists, physiocrats, classics have different opinions about this issue. In the study of the national wealth notion, the prominent economist Raymond Goldsmith, Eurostat and the UN Statistical Commission researches have a special place. Analyzing the existing theory, let's try to describe this category as follows. National wealth is a monetary expression of national-moral values and the amount of money that has been formed by deducting the country's and its residents' aggregate assets from outside that country's non-residents. The size of the country's national wealth affects the credit, the investment volume, and conditions of its economy. There are different approaches to the national wealth. I think it's more convenient for modeling based on the accumulated wealth distribution, but I suggest its improved option:

- *natural wealth (depleted and inexhaustible)*
- *wealth created by human labor (physical, intellectual, financial)*
- *the essence of man.*

The methodology of calculating the national wealth category should be improved. The property must be calculated with full or residual value? When they calculate by residual value, there is a different approach to the amortization in the legislation of different countries. There are other questions from this point of view... Along with other factors, sustainable development, requires the national wealth structure to be effective on key and sub-elements. That's why the invested capital in it should be oriented in terms of efficiency. The major change in the structure of national wealth in the world is increase of the human wealth share. What is the national wealth of our country? We try to find answer to this question.

Keywords: *national health, sustainable development, assets*

"Give me a point of support, I'll raise the Earth."
Archimedes

1. INTRODUCTION

One of the advices for entrepreneurs is "recline to your assets". When an entrepreneur establishes and improves his activities, he should use the assets as the base of development. This makes him competitive in the competition and shortens the way to reach the goal. For example, having a car has a carrier advantage over someone else,so it is more likely to earn profits if it operates based on a truck with its own asset. This success key saying at the level of entrepreneur, I think, can also be attributed to the country. The category of the national wealth is macroeconomic category that measures the aggregate assets in the country. The concept of national wealth means the national income used by United Nations statistics, an international

macroeconomic indicator in Gross National Product level. The root of the word in Azerbaijani is "serv" (cypress).Serv is evergreen,beautiful, sky-flying. Probably the symbol of eternity wood, which prepared the Noah's ship, which has saved humanity, recommended writing all the laws by Plutarch on it. One of the main questions in the economic theory is what to count as a wealth, how to calculate it, and what its source is. Mercantilists count gold as wealth, and saw its source in trade. Physiocrats saw the peasant, their source as a real wealth. The classics saw labor in all areas as source, natural, human resources, produced and gathered blessings as wealth. National wealth is totality of national-spiritual wealth and material national wealth.

2. OPENING OF NATIONAL WEALTH CATEGORY

National spiritual wealth is national-moral values, cultural monuments, character and ideology of the people. Tangible national wealth is a monetary expression of the aggregate net assets of the country, its residents in that country and beyond. This also applies to the net financial requirements for non-residents. The size of the material national wealth of the country affects the credit, the amount and terms of the investment, forming its real trust in its economy.

2.1.the structure of national wealth

There are various approaches to the structure of the national wealth: Collected wealth, National economy balance and National accounts System. I based on collected wealth because it is more comfortable for analysis,but I offer improving it.

- natural resources(exhaustible,inexhaustible,partly exhaustible)
- created wealth by human labor ((phsycial (primary assets,circulating assets, goods- material valuables) intellectually (art pearls, research results, patents-licenses) finance (gold, cash, bank loan, securities, other financial requirements))
- the essence of man

2.2. Benefit from Raymond Goldsmith's researchs

Researchs by prominent economist Raymond Goldsmith is important for learning national wealth concept.(1) He only considers real assets as wealth.(For example. land, construction, equipment). He does not consider financial instruments that are manifestations of wealth. We based on Goldsmith,that means manat does not belong to national wealth. Manat belongs to personal wealth - as a financial requirement. The manat that Azerbaijani citizen saves is a loan given to the Azerbaijani state. It is a tool that substituting with his /her labor or asset. That is, the citizen's manat is his / her demand, but the Central Bank's passive-liability. That's why the demand and liability are zero and there is no effect on the rise or fall of national wealth.And how is dollars of the Azerbaijani citizen? Dollar is belongs to net financial requirements to non-residents in the definition of national wealth. If we try to calculate the totality of national wealth of the world, then the countries' demand for each other will not be counted. Thus, world-class paper money will automatically go beyond the concept of wealth. Therefore, based on Goldsmith, we can say that financial requirements for non-residents, which are known to be responsible for the precious metals and liabilities of our residents, belong to our national wealth. That's the dollar, bitcoin is not.The origin scheme of bank loan. People first create bank by taking manat that is the Central Bank's liability selling their labor, land and so on. Then he lends some of the money that he collects. The borrower receives equipment with this money. That equipment is national wealth. Money, credit is a mediator tool. If the foreign currency is borrowed instead of a loan, it will also belong to our national wealth. But in this case, our national wealth will serve the development of the economy of foreign country, not our national economy. It means that our national wealth is part of a certain period of time that serves our national economy and serves other economies.

3.METHODOLOGY

The value of exhaustible natural wealth is management from its value in the world market. It is solved by deducting totality expenses that delivery expenses to delivery extraction and sale point. So the prices in the world market are much , management: if the expenses of extraction and transportation are less then the value of our wealth of the earth is very much. Inexhaustible:

- Climate resources:
  - The sun. Total temperature per year. Solar energy conversion into electricity
  - potential and its evaluation.
  - Wind. Annual wind speed is total.
  - Atmosphere. Real situation. Taking into account the contravention.
  - Wave energy.

- Partially exhausted / partially renewed:
  - land, relief is depleted.
  - water.
  - forest cost - service cost.
  - other flora and fauna. One of the remedies - The Red Book.

4. HUMAN WEALTH

The funds are converted into capital at that time, which brings in revenue. Human resources are totality of knowledge, skills, abilities to pay society's needs. It is believed that for the first time this term was used by American scientist Teodor Schulz in 1961. His successor, Harri Becker, has developed this idea since 1965 by justifying investments in human capital and forming an economic approach to human behavior. He was awarded the Nobel Prize in 1992 for his theory. Previously, human capital was invested in human resources, and its ability to work - increasing investments and profits. Later, the essence of this concept grew. World Bank adds: family and state expenditure on food, clothing, housing, education, health and culture. The origin of human capital theory go back to Adam Smith's research of the 18th century. He regarded the gained and useful skills of all members of society. Individuals spend money to earn their abilities, which ultimately turns into a capital in their person (2). The concept of human capital of the Shults explains the difference in the volume of production between the countries and the volumes of the spent resources. Schultz and some economists have suggested that investments in human capital are the basis of this difference (3). The most difficult part of the national wealth is linked to human wealth. "The value of human is the quantity of the value of human relationships. The word of Chinese ancestors. The insurance company insures evaluating its life.But, there is no common approach to the calculation of human resources in the world. It has ethical, intellectual, and other reasons. So, the scientific community will deal with this problem. Development prompts human capital to increase its specific weight in national wealth. The President of the Republic of Azerbaijan Mr. Ilham Aliyev proposes to "Turn oil capital into human capital" and create conditions for the material support of foreign education of Azerbaijanis to benefit from progressive international education.

5. CONCLUSION

The methodology for calculating the national wealth category should be improved. Should such property be calculated with full or residual value? When calculating the residual value, there is a different approach to depreciation in the legislation of different countries. There are other questions than this tribe. Sustainable development, along with other factors, requires the national wealth structure to be effective on key and sub-elements. So, the investment invested in it should be oriented in terms of efficiency. The major change in the structure of national wealth in the world is increasingly the share of human wealth.

Thus, what is the national wealth of our country? - try to find answers to the question.To compute the national wealth, let us attent some details. According(4) to the OPEC report, Azerbaijan's proven oil reserves are about 7 billion barrels. The Azerbaijani oil brand Azerilight has $ 62.5 per barrel. According(5) to SOCAR data, we calculated that, the production cost of 1 barrels is $ 10.4. 62.5-10.4=51.4*7 billion = $ 359.8 billion.The transportation and our foreign partners' profit share is deducted from that. Gas reserves are 1.277 trillion m3. US $ 0.26 per is 1 m 3 of Azerbaijani gas (6). According (7) to SOCAR data, we calculated that, Production cost of 1 m 3 of gas is US $ 0.036. 0.26- 0.036 = 0.224 * 1.277 trillion m3 = $ 286 billion. Sales and other expenses are deducted from this amount. The hydroenergy reserves of our rivers are 37 billion. Kvt. The value of fixed assets is $ 99.5 billion.(8) The official gold-currency reserves of the Central Bank of Azerbaijan are USD 5.534 billion (28.09.2018). The assets of the SOFAZ are $ 38,987 billion (01.10.2018).In The Commonwealth of Independent States(CIS) the average national wealth per capita is $ 275,000.(9) If we apply this to Azerbaijan, which has a population of 10 million, the national wealth of our country is $ 2.75 trillion. Calculation of national wealth is a difficult process both in terms of methodology and in gathering necessary information. The report will focus on its detailing. The continuation of the arguments in this direction will probably lead to real results. P.S First of all, I knew that first time human capital was used by Theodor Schulz in the year 1961. I wish a restoration of historical justice along with my great respect for his research. By quoting the famous poem by the famous Azerbaijani poet Mikayil Mushviq, published in 1937, "The Feeling Leaves":

Sky is an open embrace of love,
Imagine stars are baby children,
Our young mothers on their lap
Many such stars will shine.

Who is wrong saying life is a talent,
Is it a sweet dream and sweet idea?
Beautify nature every moment
Human being is an inexhaustible capital!

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AGRICULTURAL SUBSIDIES IN MEXICO AS PART OF THE HACENDARY POLICY FOR THE REGIONAL DEVELOPMENT

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ABSTRACT

In Mexico it is recorded that by 2015, 14% of the population lives in rural areas, developing mainly agricultural activities under adverse and precarious conditions, which makes it necessary to provide financial support through subsidies to the agricultural sector. With the objective of identifying the causes and effects of the reduction of agricultural subsidies in the agricultural sector, the conditions and means of management of agricultural subsidies are analyzed as part of productive programs that make up the hacendary policy to determine its economic and financial impact on agricultural activity. Given the hypothesis of considering that the application of agricultural subsidies, they represent a fiscal-hacendary policy because they are part of the programmable public expenditure, with sectoral orientation and compensatory attributes to the income of agricultural producers, that by decreasing the agricultural activity has been discouraged and with this, the reduction of poverty in rural agricultural areas of the country has been hampered. Using the methodology proposed by Scott (2010), for the geographical apportionment of the distribution of agricultural subsidies, it is observed that the decrease of programmable public spending destined to agricultural public policies, is concentrated in a few agricultural producers that make up the richest half of the farmers in Mexico, which could explain the low contribution to the GDP of the agricultural sector and the low productive performance, which implies a lack of correlation between programmable public spending on agricultural subsidies and agricultural GDP growth.

Keywords: *Agricultural Subsidies, Hacendary Policy, Fiscal Policy, Programmable public expenditure, Regional development, Treasury Policy*

1. INTRODUCTION

Currently in Mexico, the dimension of rural poverty makes up an obvious reality from generation to generation. Although, the fight against poverty has a long history from the structural adjustment programs of the 1980s, to the innovative support mechanisms such as PROCAMPO now PROAGRO, the analysis of its evolution and performance is also registered as strategies of the agricultural policy of transfers, subsidies and general subsidies at national and international level. On the other hand, in the last seven years the public expenditure destined to the countryside has been reduced permanently. Through the Special Concurrent Program (PEC) for Rural Development, the constant changes applied to the agricultural package are shown. The Center for Studies for Sustainable Rural Development and Food Sovereignty (CEDRSSA) of the Chamber of Deputies; concluded in his analysis of the PEC, that the public account of the exercise of 2016 approved for the plans that make up the program, went from 351 thousand 571 million pesos to 334 thousand 481 million, yielding a negative budgetary result for the development of minor agricultural activity. The argument of the Budget of Expenditures for 2017, proposes "a macroeconomic strategy based on two elements: (1) a fiscal policy that contemplates transitory and decreasing deficits from 2013 to 2016 to respond to the conjunctural challenges and to accelerate the consolidation of the structural agenda that would raise the country's growth potential; and (2) an initiative to reform the Federal Budget and Fiscal Responsibility Law that, within the framework of the Social and Fiscal Reform, consolidates the country's commitment to macroeconomic stability and the responsible management of public finances as a Policy of State".

In addition to serving the following strategic lines of action that had been observed since the previous administration 2000-2016, regarding the Mexican countryside:

a) Converge and optimize the programs and resources that increase the opportunities of access to services in rural areas and reduce poverty (Special Concurrent Program).
b) Promote the diversification of economic activities in rural areas.
c) Integrate the rural areas of high and very high marginalization to the dynamics of national development.
d) Supply the domestic market with quality, healthy and accessible food from the fields and seas.
e) Promote food security through ordering and market certainty.
f) Ensure the supply of healthy food through the promotion of the production of crops and basic products for the food of Mexicans and strengthen their commercialization through the promotion and classification of markets.
g) Increase labor productivity through organization, training and technical assistance.

1.1. Generality and importance of agricultural subsidies

The Chamber of Deputies of the H. Congress of the Union (2017), highlights that from seven years to date, the comparative analysis between the expenditure of the agricultural sector, determines a downward trend in relation to the programmable expenditure and in relation to the gross domestic product, which for 2016 was 8 and 1.7% respectively, while in 2010 it was 9.9 and 2% in the same order. As is evident, the actions to promote agriculture will be subtracted from 14.4% of the 2016 budget that will affect priority programs such as PROAGRO (Before PROCAMPO). Among other programs of support to the field, the PROCAMPO (currently known as PROAGRO) has in common with others the dejection to poverty, this condition or purpose, denotes the essence and social vocation of the program; therefore, we are talking about a social policy that is linked to the finance policy for the part of public spending that it represents. Initially, field support programs were intended for farmers in rural areas; but nevertheless, this is not the case, business farmers also participate and are beneficiaries; and by the economic conditions and productive characteristics of the latter, they are the most benefited in terms of income perception due to having more hectares to plant. With this, the main objective of poverty abatement that was intended with PROCAMPO or PROAGRO is lost. It is well known that business agriculture in Mexico does not have the characteristics or variables that are taken into account to determine if a farmer is poor, the main variable that is taken into account is income, therefore, it is important to recognize that as a social program it is lost from its main objective. On the other hand, from the perspective of international markets there is a conviction that subsidies to the agricultural field generate distortions in the market, due to the international agreement chosen by all the members of the UN, which was due first to a significant reduction in agricultural subsidies and in a second stage to elimination; however, both the United States and the European Union are regions in which agricultural activity is mostly subsidized and promote this incentive to agriculture, despite the fact that the rest of the developing countries, members of the UN, are at a competitive disadvantage to position their grains in both the internal and external markets (Anderson, et al., 2006). With the implementation of the current economic model, the Mexican agricultural sector has been one of the most affected, since since 1982 various reforms have been applied to agricultural policies, such as the elimination of the guarantee prices of basic products, the reform to the constitutional article 27, the creation of subsidies to the commercialization and for the year 1993 a mechanism of direct support to the agricultural production was instrumented, better known as Program of direct support to the field (PROCAMPO today PROAGRO), that although, has given important benefits, these have only been compensatory in the face of the negative balances left by NAFTA to the agricultural sector.

For more than ten years, Trivelli and Venero (2006) have explained that the agricultural policy adopted in Mexico has been selective, decapitalizing the sector through regressive policies for subsidies aimed at producers and entrepreneurs with higher incomes, political manipulation, corruption and the allocation of unproductive credits, among others. Under this scenario, shortly after the entry into force of the free trade agreement with Canada and the United States (NAFTA), the first unfavorable results were seen, at the end of 1994 and during 1995, an economic crisis was generated in the country that induced the GDP to contract at a rate of -6.2%, for that moment, this contraction in GDP was historic, given that it had not been seen in Mexico. Today, almost ten years after the world economy was affected by one of the most severe crises of the last hundred years, the 2008 subprime financial crisis collapsed the productive development and social welfare of Mexico. Although from the 80's, there is a low economic performance and a low level of agricultural productivity in Mexico, the economic and social reality is the product of an economic policy that articulates the economic crisis, productive agricultural stagnation, agricultural deindustrialization, inequality in the distribution of income, unemployment, wage discrepancy, underemployment and poverty. In Mexico, the dimension of rural poverty makes up an obvious reality from generation to generation. Although, the fight against poverty has a long history from the structural adjustment programs of the 1980s to the innovative support mechanisms such as PROCAMPO now ProAgro, the analysis of its evolution and performance is also recorded as strategies of the policy of transfers, subsidies and general subsidies at the national and international levels. Hence, to strengthen the agricultural sector is considered a determining factor in reducing poverty.

1.2. Characteristics and problem to be solved regarding agricultural subsidies

The problematic analyzed, forces us to generate answers for the agricultural sector, for what it is posed. What implications has the reduction of subsidies had in the Mexican agricultural sector (Sinaloa)? and Under what conditions are subsidies to the agricultural sector in Mexico managed? Historically, PROCAMPO arises in response to the serious precarious situation that the agricultural sector was living in 1993, that in synthesis can be characterized by an environment of rural poverty, loss of food self-sufficiency, migration, fall in agricultural productivity; that in synthesis can be characterized by an environment of rural poverty, loss of food self-sufficiency, migration, fall in agricultural productivity; hence, the Mexican State, responds to these problems through agricultural policy, being among other programs, PROCAMPO one of the most prominent public sector policy instruments known until a couple of decades ago, for the financial immediacy and economic solvency that generated the agricultural producers. However, what is now known as PROAGRO, has ceased to be a boost of financial support in agricultural production, mainly due to the reduction of programmable public spending and its impact on the reduction of agricultural subsidies. Based on the contextual analysis of the application and evolution of PROCAMPO, it is necessary to recognize that the agricultural producers in the entity perceive that the reduction of PROCAMPO benefits (amounts per hectare), it has negative economic and financial effects on the development of agricultural activity, which implies a financial deterioration and economic weakening for the sector; so it is assumed that "the application of PROCAMPO is a compensatory sectoral policy to the income of agricultural producers, with high characteristics of inequality and disproportionality, given that the support to the countryside is more significant for the rich agricultural producers, and less support for the rural sector of small farmers, with high characteristics of inequality and disproportionality, given that the support to the countryside is more significant for the rich agricultural producers, and less support for the rural sector of small farmers, which has had significantly adverse impacts on the reduction of rural poverty, due to the fact that it is due to deficiencies, inequities and inequalities, both in the design and in its application, which leads to a remarkable concentration of support in "a few

producers agricultural". For this reason, small agricultural producers have been poorly benefited by the program in terms of a zero reduction in their levels of poverty, since the "apparent increase" in their income, associated with its participation in the program, it is insufficient because it does not compensate for the microeconomic loss due to increases in production costs and the decrease in the real sale price absorbed by the producer. This idea of compensating the "losers", that is, (those who are harmed by the current agricultural policy of PROCAMPO), it would make sense, if those who benefit were the majority and certain minority interests will be harmed and therefore, can be compensated; but it loses meaning if the decisions only benefit a minority of agricultural entrepreneurs, and most of the producers of the rural sector with peasant ancestry are harmed.

1.3. Reduction of agricultural subsidies and management conditions

It is convenient to carry out more detailed analyzes of the impact of these programs at the regional and local level, which allow public policy designers to have the necessary elements and a more useful diagnosis for the regions that make up the great mosaic of geographic diversity and cultural of Mexico. The studies about PROCAMPO and its economic and social impact, are mostly of macroeconomic representation, observing the lack of regionally focused studies, therefore, it is necessary to carry out more detailed analyzes from local perspectives of both qualitative and quantitative nature. Due to the scarce visibility of this type of studies at the local-regional level, the need to carry out research that highlights the relationship between PROCAMPO, the levels of income and agricultural productivity, as well as the levels of poverty that exist in the rural regions of the State of Sinaloa. In this sense, the Program of Direct Support to the Field to be considered one of the main tools of sectoral public policy aimed at the population in rural areas, has as its central objective to compensate the income of farmers. It is fair to indicate that, in its origins, it did not contemplate influencing the reduction of rural poverty, the nature of its modus operandi, the dimensions of the budgets it had, as well as the profiles of the population served, in the years that it has been operating PROCAMPO has contributed to changing the poverty landscape in rural Mexico by fulfilling the explicit objective of increasing the income level of its beneficiaries (Zarazúa- Escobar et al., 2011), without specifying or analyzing the microdimensions of its scope. In context, the extinction of collateral prices led to the initiative of strategies that previously covered some of the functions of CONASUPO, regarding the marketing of food; so in 1991 the deconcentrated body of SAGARPA was created, called Support and Services to Agricultural Marketing (ASERCA). In this way, based on Trujillo Felix, et al. (2007), the public sector prompted price agreements between large buyers and producers using marketing support (payments), but only in some products and in regions with large surpluses. This did not represent the compensation that was needed for the guarantee prices, for which reason the Direct Field Support Program (PROCAMPO) was created as the most important sectoral policy instrument for agriculture at that stage. The original objective of PROCAMPO was to make direct transfers to compensate the loss of income of agricultural producers, before the commercial opening derived from the Free Trade Agreement of North America (DOF, July 25, 1994 and the Errata November 1994) and before the evaporation of intervention schemes for the support of market prices of agricultural products, while the collateral objectives proposed for PROCAMPO and published in "Claridades", the official magazine of ASERCA (Aguilar Villanueva, 1996), were:

a) Promote the productive reconversion towards activities of greater profitability.
b) Compensate subsidies that other countries grant to their producers.
c) Stimulate the organization of the producers.
d) Increase the competitiveness of productive chains.
e) Stop the degradation of the environment, promoting ecological projects.

The Organization for Economic Co-operation and Development (OECD) indicated that PROCAMPO has granted direct payments linked to the historical use of the land rather than the current production, since it was expected that producers would switch to more profitable crops in the context of a more competitive economy. On the other hand, Schwentesius et al. (2008) in the meta-evaluation carried out by PROCAMPO, show that the evaluations of 1998, 2001, 2003 and 2008 reflect an effective program, efficient and that has fulfilled satisfactorily with most of the general and collateral objectives. Even with positive impacts even in areas that had not been their direct interference, as the improvement in prices and marketing of crops. Even in the quality of life an improvement was obtained. In this way, the operation of the program, in accordance with these evaluations, has been successful and has adequately complied with the stated objectives, both the main one and the collateral ones. In Nahmad (2012), it is recorded that the macroeconomic, agrarian and environmental neoliberal reforms implemented in Mexico since 1982 were designed to sustain economic growth, increase the standard of living of the population and combat poverty.

1.4. The costs of neoliberal model in the agricultural sector

Neoliberalism, as a technocratic, mercantilist and macroeconomic (and not necessarily philosophical) movement, it has a geopolitical dimension that moves away from social and collective interests. However, under neoliberal reforms, economic development actually declined, particularly within the peasant and indigenous sectors. The socio-economic costs of applying the neoliberal model have transcended to the reduction of public revenues and thus to the reduction of investment, directly affecting the growth and economic development of Mexico. This and other problems determine the imperative need to improve Mexico's economic performance. Thus, the interest to analyze the variable of public income and its distribution is justified, since this constitutes a real measure that affects the economic growth and development of Mexico, as well as being a fundamental reference through which citizens recover credibility in the tax and tax system of the country. The proposal to carry out an investigation about the implications that the agricultural sector policy has had on the subsidies and transfers to the agricultural sector and the economic growth of Mexico, it is timely given that at the beginning of the 21st century, we are immersed in one of the worst economic and financial crises of the last hundred years. Joseph Stiglitz on his last visit to Mexico in November 2009, said that Mexico's performance in the face of the crisis has been one of the worst in the world, and also expressed that it is worrisome that the Mexican government is betting on the recovery of the United States so that the country recovers, he also suggested that the Mexicans should be concerned that the government policy and public spending are not designed to promote economic growth, and therefore calls on the Mexican government to promote a finance policy aimed at productive spending and economic reactivation. According to data from INEGI, in 2009 as a result of the crisis there was a result of -6.5% of GDP, so it is considered that it is due to the application of the current economic policy that the economic and financial capacity of the State to face the crisis, from there, the political-economic errors that the Mexican government still applies, are based on the extreme faith in neoliberalism, and in the ways in which; On the one hand, the State has been failed and; on the other, the participation of the private sector has been magnified; however, this reality must be recognized as an area of opportunity in which it is prudent to resize the restructuring of necessary actions that link the application of public revenues with a better and equitable distribution. It is important to recognize that, in our country, we have been unable to design changes (not to say reforms), commercial, financial, fiscal and treasury, that lead us to be a country strong enough to consolidate on truly democratic and scientific bases. However, in Mexico, there are still few and controversial analyzes about the problems associated with the application and equitable distribution of spending.

It has been clear that the "fiscal reforms", enunciated and adopted, have not solved the problem of the obtaining, management and equitable distribution of income; nevertheless, it is estimated that this research contributes modestly to the discussion about the link between sectoral agrarian policy and fiscal-finance policy, from the perspective of the best application of programmable public spending in its section of subsidies, and more specifically if it is the application of the agricultural subsidy called PROCAMPO during the period 1995-2016.

1.5. Context of sectoral public policy

Although in a historical context, Castillo-Muñoz (2013) shows how in the decade of the 40's, the indigenous peoples of Mexico were excluded from receiving agricultural subsidies for the cultivation of corn, which implied a stimulus of the massive emigration of these communities to the lowlands of Nayarit and to the United States and affected the adaptation of Mexican rural workers to the life of a migrant; however, it set the precedent and made visible the condition of rural migration as a consequence of the absence of subsidies and government support to the agricultural sector. Also from Martínez (2011), the market liberalization measures taken by the Mexican government in the 1990s and its impact on migration and the agricultural sector were already examined. highlighting the analysis of events that affected the small agricultural producers of basic crops in Mexico, such as the elimination of price supports and subsidies for inputs, changes in the property laws of the communal landowners and the reduction of tariffs on agricultural imports and their impact on migration to the United States. It reveals that dependence on the production of basic crops is positively and significantly associated with the increase in migration rates. There are also small effects of exposure to changes in property rights and the negative but insignificant effects of exposure to globalization on migration to the United States. After the unfavorable conditions and the high migration of the rural sector, the Mexican State designs and implements public policies oriented to certain economic and social sectors, recognizing from this vision the sectoral public policy. Hence, the concern to analyze the broad discussion about the importance of the distribution of programmable public expenditure to assess the effect of agricultural subsidies, linking the distributive aspect and the application of public spending with the income conditions of agricultural households and rural, disaggregating the program information to estimate the geographical distribution of agricultural subsidies by distributable amounts of PROCAMPO, beneficiary, area, households and producers. This while recognizing and sharing the ecoconditionality analyzed by Ortiz, Rindermann and Cruz (2008), as an instrument of public policy that subordinates the delivery of incentives (that is, payments or subsidies) that are positioned from the political and government interests. Before the maneuver of the eco-conditionality that starts from the common agricultural policy of the European Union, for which it is proposed to solve some of the main agro-environmental problems in Mexico by means of the reformulation of the agricultural policy of Mexico, which emphasizes the transformation of the PROCAMPO program towards the inclusion of agro-environmental measurements. In this context, its impact is analyzed from the perspective of public policy based on Laswell (1971), it is emphasized that public policy is the discipline that deals with explaining the processes of elaboration and execution of guidelines that encourage and accelerate economic conditions and social of a country, a region or a locality. They are designed with scientific, interdisciplinary and at the service of citizens, emphasizing that knowledge of the decision process and knowledge in the decision process, are represented from the professional skills necessary to participate in public decision making, which would correspond to identify and assimilate the political decision process. When we talk about public policy, allusions are made to processes, decisions, and results, without excluding the conflicts of interest that arise, which makes us expect public policy to develop in a context full of power and conflict games. that take over the courses of action of public policy.

On the other hand, Aguilar Villanueva (1996), suggests that a public policy is the design of a collective action with the intention of benefiting as much as possible the subjects of the policy; as well as the course or path taken by the public policy action, as a result of the decisions that behave according to the facts and the collective needs that produce it, justify it and start it. While for Kraft and Furlong (2006), public policy is represented by the action of the government in response to public problems of social and economic order, representing with this, the resolution of conflicts, assigning him a decision of high stature. In summary, public policies are the answers that the State can give to social demands, whether in the form of norms, institutions, public goods, public services, plans and programs. In the opinion of Scott (2008), both the design and the application of agricultural public policies in Mexico, suffer from the multitude of conflicting objectives and disconnected from each other, for a single instrument of public policy, such is the case of the sectoral agricultural policy, since it is characterized by a duality of dual purpose in the vocation; that is to say, on the one hand they are endowed with characteristics with a productive vocation and on the other hand they show a social vocation, such is the case of PROCAMPO, since it is considered a program aimed at raising productivity in the rural sector and, in turn, it is a targeted program to mitigate rural poverty. Traditionally, this duality is observed in the federal and local public policy applied in Mexico, specifically in the productive programs promoted by the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), and in the social programs promoted by the Ministry of Social Development (SEDESOL), which finally rely on the Federal Budget and Fiscal Responsibility Law, as well as in the fiscal policy instrument PEC (Special Concurrent Program) that brings together a set of agricultural and rural development programs with specific rural development vocations and specific objectives according to the program in question, allowing a broad segmentation between the productive and the social.

2. METHODOLOGY: MATERIALS AND METHODS

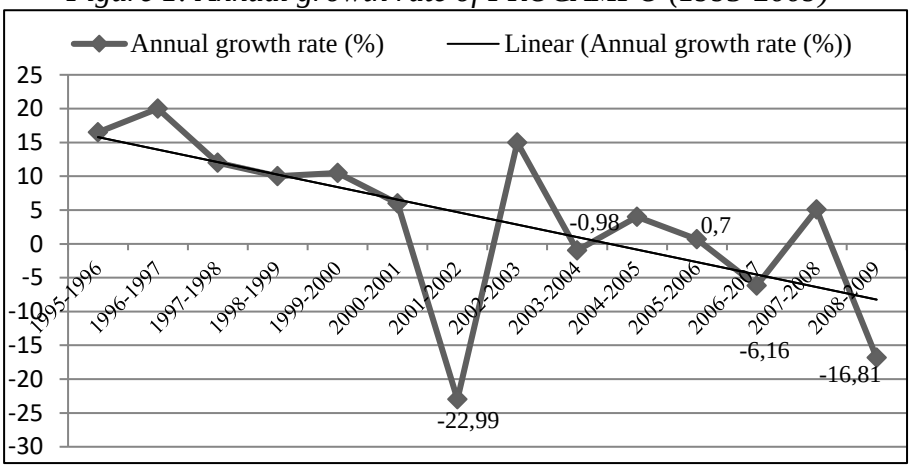
The methodology applied is the one proposed by Scott (2010), based on the empirical evidence that determines the analysis of the variables of programmable public expenditure and the component of agricultural subsidies distributed geographically at the state and municipal level where PROCAMPO information is recorded. as a target income. Based on the procedures of Scott (2010), an analysis is made from the basic arithmetic that allows to identify the growth and evolution of programmable public spending in the country, as well as the component of subsidies and PROCAMPO-PROAGRO. Through the analysis of the program component, the information is ungrouped by federative entities to identify where the largest number of PROCAMPO beneficiaries are concentrated, the largest amounts of support and the largest productive area supported; as well as, the relationship that these variables have with the levels of agricultural growth in each state. For Sinaloa, the same analysis is replicated but using secondary information revealed by SAGARPA (2017) and making use of spatial statistics, which allows identifying, analyzing and graphing, the territorial distribution of agricultural subsidies in the state of Sinaloa, as well as its relationship with the rest of the variables. At the end, a summary of the results of recent works is presented which, using similar methods and objectives, have evaluated the impact of agricultural policies in our country, with special emphasis on the fulfillment of the stated objectives to be achieved in the implementation of PROCAMPO. By analyzing the components of programmable public spending and the disaggregation of subsidies comparable to the program, it is possible to identify an abundant accumulation of data ranging from the annual growth rates of public expenditure to the number of PROCAMPO beneficiaries according to their productive condition, amount allocated, and surface supported, either on irrigated land or on temporary land. It is clear that it is increasingly common to make an assessment of the events or annual events of the public budget, it is necessary to assimilate and interpret a considerable amount of data;

However, the information age allows the data to be processed, summarized and analyzed quickly and in detail. In addition, it can be observed that by assigning a lower public budget to the agricultural sector, and specifically by decreasing the support of PROCAMPO, the probable level of economic capacity and income is put to consideration to determine if it is possible to carry out a public marketing guide; that is, to define the demand of the program and the allocation of this resource as part of the public offer, highlighting as a priority interest, a comparative study in the management and reception of this type of support among large, medium and small agricultural producers. Nacional level. Given that the population at the national level and mainly at the state level is broad, it is difficult to analyze it; however, it would be possible through the procedures of Newbold, Carlson and Thorne (2008: 3), taking "to the complete set of all the objects that interest to investigate" that will be the register of all the producers enrolled in PROCAMPO. For this case, the purpose of this probabilistic analysis is to affirm that the sample data have some validity on the population of data that represent the variables: number of beneficiaries (agricultural producers), amount of benefit (PROCAMPO), land area supported (in hectares) and the correlation of programmable public spending, subsidies and possibly economic growth, given that we intend to know what is the correlation of PROCAMPO with public spending and subsidies in particular. Likewise, following Newbold, Carlson and Thorne (2008) from the perspective of the descriptive and inferential statistical method, the observations that are contemplated correspond to the years from 1995 to 2016, dividing two categories of beneficiaries, the producers of temporary and the producers of irrigated land, for which the average or statistical is determined. From there, the distribution of PROCAMPO is reviewed by beneficiary, beneficiary surface, amount and type of production, using the administrative information criterion that provides data of producers by registered land size as the only available variable that approximates the level of wealth of the beneficiary. The information available for this research, offers the estimation of PROCAMPO under a quantitative approach with descriptive and correlational records of cross section that are supported in the effects of the treatment of descriptive statistics, based on the comparison of beneficiaries, amounts of benefit and surface beneficiary with correlational scope when using a reciprocity of 80 and 20 percent between agricultural producers of irrigation and temporary; However, without limiting the contribution of the discussion, it is recognized that the critical analysis is carried out under the qualitative approach with a purely descriptive scope. The data collection was given through the information offered by SAGARPA (2017), the National Survey of Rural Households in Mexico (ENHRUM) and the National Household Income Expenditure Survey (ENIGH) of INEGI from the national accounts system for effects of public expenditure parameters, finding that the strategy of support to the field that has been developed by the SHCP and SAGARPA, could be useful to identify the level of income of agricultural producers and their spending habits in relation to their productive activity. Second, a hypothesis about a parameter or category could be tested. For example, identify the years that have mostly supported agricultural producers or otherwise, identify the years in which less has been supported to see their correspondence with other items such as public spending or economic growth. In addition, it can be contrasted if irrigation or seasonal producers are susceptible to greater support. Differentiate if the average annual agricultural support per beneficiary is increased. In this regard, with the statistical analyzes, the relationships of two or more variables could be analyzed. Macroeconomic data series are also used to analyze the relationship between gross domestic product, public spending, programmable public spending, and the application of subsidies that indicate the general situation of the country's economy and the general condition of the application of the public expenditure oriented to subsidies.

3. RESULTS AND GRAPHICAL DESCRIPTION OF THE DATA

In this section, we seek to graphically expose information related to the allocation of public expenditure and PROCAMPO. The classification of the variables, are discrete numerical that according to Newbold, Carlson and Thorne (2008: 10) "can have a finite number of values; however, the most frequent type of discrete numerical variable with which we will find produces an answer that comes from a counting process ". In this sense, discrete numerical variables are considered for the control and management of data related to the number of PROCAMPO beneficiaries, support amounts and area supported. In Figure 1, the annual growth trend of PROCAMPO can be observed, during the period 1995-2009, highlighting a drastic decrease of -22.99% in the year 2001. This could be explained by the tendency to decrease budgetary public expenditure that since 1987 it is downward (see figure 2).

Figure 1: Annual growth rate of PROCAMPO (1995-2009)

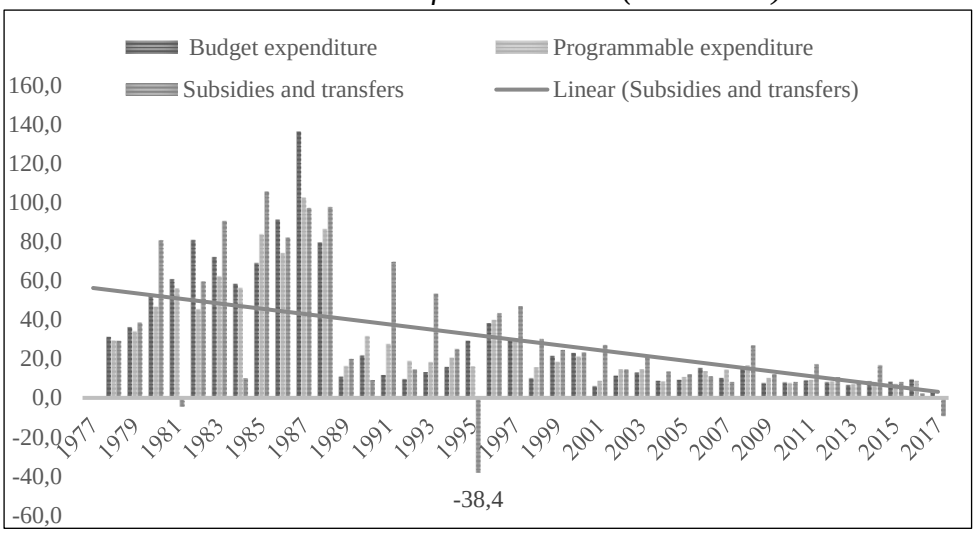


Source: Own elaboration with data from ACERCA

It can be seen that by decreasing programmable public spending, subsidies tend to decrease as well, which allows us to consider that since 1987 some economic events that restricted Mexico's public finances had taken place, which had an impact on PROCAMPO's an inflation of 226% coupled with a devaluation of 205%, even when the financial sector declares bankruptcy, Bancomer is also sold. In figure 2, it can be observed that since the six years of Salinas de Gortari (1988-2000), the strong budget cuts began. In the year 2000, the sectorial budgets were reduced to their maximum expression and for the 2001, when initiating the presidency of the Republic Vicente Fox, it faces an insolvent economy that after the 9/11 fall World Stock Exchanges, making it impossible to increase the expense productive public and preventing improving the economic and financial conditions of Mexico.

Figure following on the next page

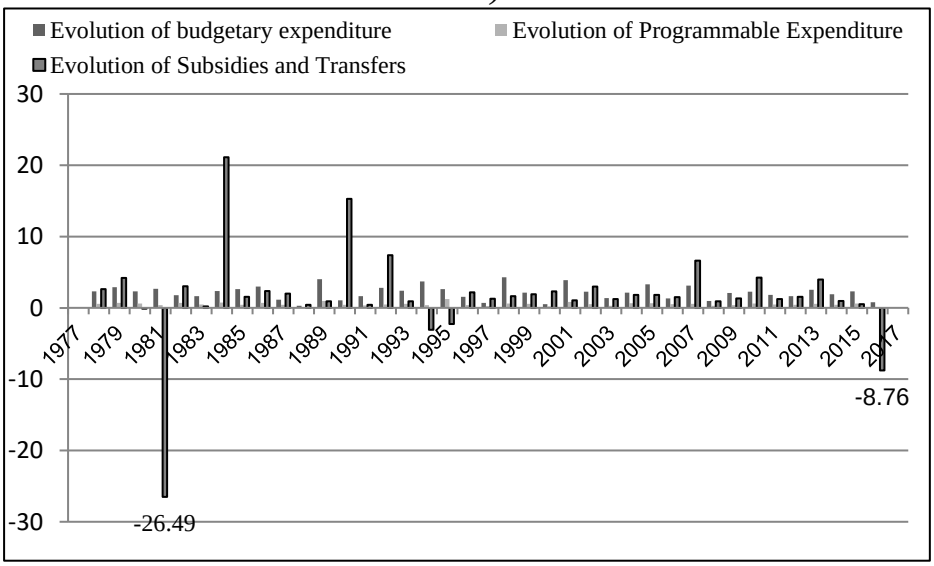
Figure 2: Annual Growth of Budgetary Expenditure, Programmable Expenditure and Subsidies-Transfers in Mexico (1977-2016)



Source: Bank of Mexico (2017), with statistics on Public Finance of the Economic Information System.

In addition, there is a significant reduction in the component of subsidies and transfers of -38.4 in the year 1995, and -9.2% in the year 2017, while the programmable spending records a fall below the 5% annual average of the year 2001 to 2017. Faced with the reduction of subsidies and transfers to the agricultural sector, since the late 1980s, negative consequences were anticipated each year in the well-being of agricultural families and in the income of farmers; due to the lack of new programs or subsidies aimed at productive improvement. Also, since the implementation of the policy of trade liberalization (1981) a drastic reduction in the evolution of both budget spending in general and in the section of programmable public expenditure that is where subsidies and transfers are contemplated, maintaining a decreasing trend was reflected over time, notice in Figure 3.

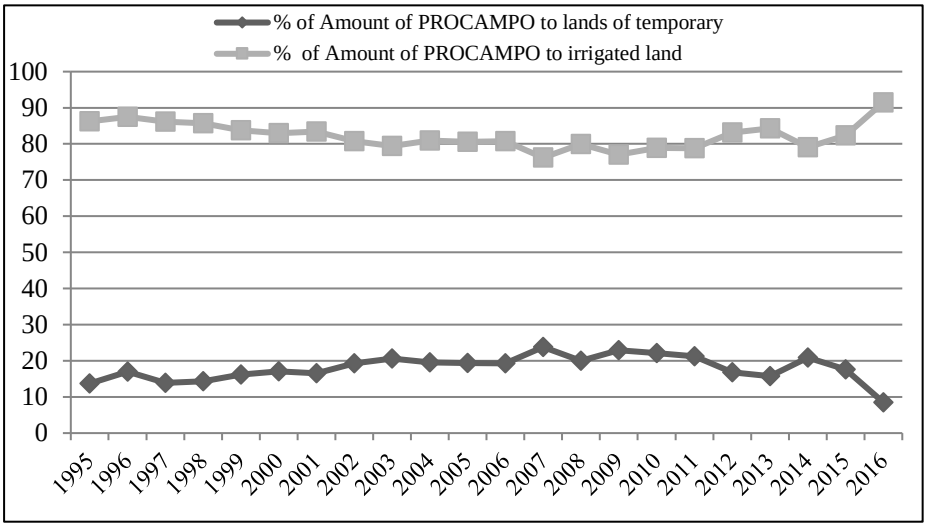
Figure 3: Mexico: Evolution of Budgetary Expenditure, programmable and Subsidies (1977-2017)



Source: Bank of Mexico (2017), with statistics on Public Finance of the Economic Information System

It is undeniable that the Mexican agricultural sector is affected by the budget decrease and the fall in transfers and subsidies. In the figure no. 4, there is a slight downward trend in the evolution of the amount of PROCAMPO distributed to temporary lands, even though its weight is 80% per year; While the amount distributed to irrigated land, reflects a slight upward trend, but remaining at the weight of 20% on an annual average.

Figure 4: Behavior of the PROCAMPO application according to the type of cultivated land (1995-2016)



Source: Own elaboration with data from ACERCA

When analyzing the behavior of the PROAMPO application according to the type of cultivated land, the categories were identified. Based on Lind, Marchal and Wathen (2012), it was possible to convert category frequencies into relative frequencies of categories to show the fraction of the total number of observations in each of the chosen ones. The relation between the totality of elements of a category and the total number of observations is observed. Regarding the application of PROCAMPO, it is observed that 85.8% of the beneficiaries are farmers who produce on rainfed land, while 14.2% are farmers who produce on irrigated land.

Table 1: Table of relative frequency of the number of PROCAMPO beneficiaries by type of land property

Category	**Number of Beneficiaries**	**Relative frequency**
Irrigation Lands	7,336,074	0.142
Temporary Lands	44,351,763	0.858
Total Beneficiaries	51,687,837	1.000
Source: Own elaboration with information from SAGARPA and ACERCA.		

Between the analysis of incidence of the benefits of agricultural subsidies Scott (2008 and 2010), it shows that the evaluations of agricultural subsidies overestimate the degree of regression (concentration in the richest producers) and that these are destined for transfers unrelated to the production, however, the concentration of income is underestimated as are most subsidies that are concentrated on the largest or richest agricultural producers.

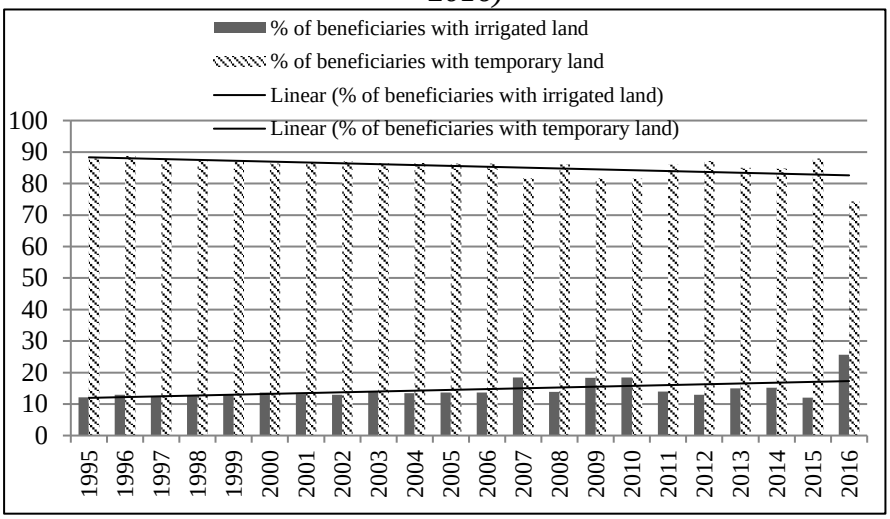
4. DISCUSSION OF THE ANALYSIS

For the Discussion on the implications of agricultural subsidies in Mexico, García-Salazar, et al. (2011), who evaluate the effects of PROCAMPO on the Mexican corn market from 2005 to

2007 and highlight that corn is the crop that has obtained the most resources from this program, they demonstrate through a model of spatial and intertemporal equilibrium that the benefits were higher than the program costs, and that a 50% increase in the subsidy would increase maize production by approximately 10%, thereby decreasing corn imports into 20.7%; therefore, due to the positive effects of the Program, the continuation and increase of support is recommended. Likewise, Appendini (2014) discusses the background of Mexico's agricultural policies and analyzes the programs implemented by the state agency ASERCA (Support and Services to Agricultural Marketing) that support corn commercialization, in addition, it argues that the restructuring of the domestic supply of corn is due to political decisions and subsidies to production to support private agents in the corn market; therefore, it considers that the State did not withdraw its participation but, rather, it has had a determining role in the construction of the "free" corn market, with the result that the domestic supply for the market is concentrated in the hands of relatively few producers and in relatively few regions. Although Lence (2016) estimates that contract farming (A × C) is the main program of the Mexican government aimed at mitigating price risks for agricultural producers in Mexico, In addition, it has unique characteristics that include forward contracts and the provision of basic subsidies and futures options traded on a subsidized stock exchange for producers and intermediaries. For its part Echanove (2017: 47), documents the characteristics and contextualization of the subsidy programs that the Mexican government implemented to protect Mexican farmers from the risks that would imply price volatility as well as the effects of liquidity on producers of corn, emphasizing that "the programs of support to the field have important advantages for the producers, however, its impact is not tangible in terms of yields and productivity, which prevents the establishment of generous sales contracts, which is why there is a need to reorient agricultural policy in Mexico", directing resources dedicated to the government's coverage strategy to less regressive programs, such as direct income support for the producer, as in the case of PROCAMPO. From a sociological perspective, Navarro-Olmedo, Haenn, Schmook and Radel (2016), conducted a qualitative research with 94 Mexican ejidatarios to examine the impact of the reforms that in 1992 strengthened the social hierarchies of the agricultural sector, highlighting that these reforms consolidated the social status of producers, by contesting greater access to government subsidies, but responding to social pressures that called for greater justice and equity towards a stepped citizenship, but being inflexible with the term of citizenship of market, in which they have less access to resources or government transfers. However, the results of Lence (2016) show that contract farming causes large transfers in the agricultural sector and argues that if A × C reduces the market power of intermediaries to the greatest extent possible, the results indicate that even it would cause significant losses in aggregate welfare. As stated by Huacuja (2013), when estimating that Mexico was the fourth world producer of animal feed, a highly productive and dynamic sector in the last thirty years, what would have derived the analysis of the supply mechanisms of the food agroindustry and the role played by agricultural policies of subsidies in these mechanisms, highlighting that from 1994 to 2007, finding that the Mexican government subsidized grain imports from the producing sector; however, it recently implemented the "agriculture by contract" program to encourage companies to acquire national grains and support their producers, highlighting the main problem of subsidizing agriculture by contract, determining the prices of grains and the exchange rate, which makes it highly vulnerable. Zarazúa-Escobar, Almaguer-Vargas and Ocampo-Ledesma (2011), considering two segments of producers: smallholders with a traditional production system (less than one hectare) and producers of a commercial production system (with more than 20 hectares), analyze the fulfillment of the collateral objectives of PROCAMPO, in a representative sample of producers obtained from the list of beneficiaries of said program, finding evidence that while the smallholder system is in the transition stage towards the commercial sector, the agricultural system of commercial production finds a

gradual reduction in social, economic and ecological profitability, to which they emphasize that PROCAMPO does not meet its collateral objectives, which makes it necessary to include the agricultural sector, support for public goods, in order to develop knowledge management. For their part, Freudenreich and Mußhoff (2017), link subsidies to agriculture with risk mitigation through production insurance, noting that farmers in developing countries are risk averse, and therefore prone to lack for sure, which limits the adoption of technologies that improve agricultural production and productivity. In their study, they prove that production insurance is better than supports (subsidies) destined for compensation of crops, given that having agricultural subsidies would allow the purchase of insurance and technology that minimizes risks and potentializes agricultural productivity; that is, obtaining a subsidy for productivity is better than obtaining insurance support for production losses. Huacuja (2016), records that soybeans are the grain in which Mexico has the highest food dependency, so from 2008, the government has granted excellent subsidies to both producers and buyers of the grain, thus contributing to a recent process of expansion in certain states, as in Campeche, concluding that although producers have raised their income levels, the process continues to be vulnerable, since it depends on variables such as government support through transfers, determination of the international price of soybeans and the exchange rate. Based on the foregoing, the data provided by the 2016 INEGI agricultural census framework (July 5, 2017), allow verifying the validation of economic activities related to the agricultural sector, yielding infographics by cultivation figures with state relevance, allowing the consultation of the microdata laboratory for the purpose of obtaining special information such as the application of subsidies to the field.

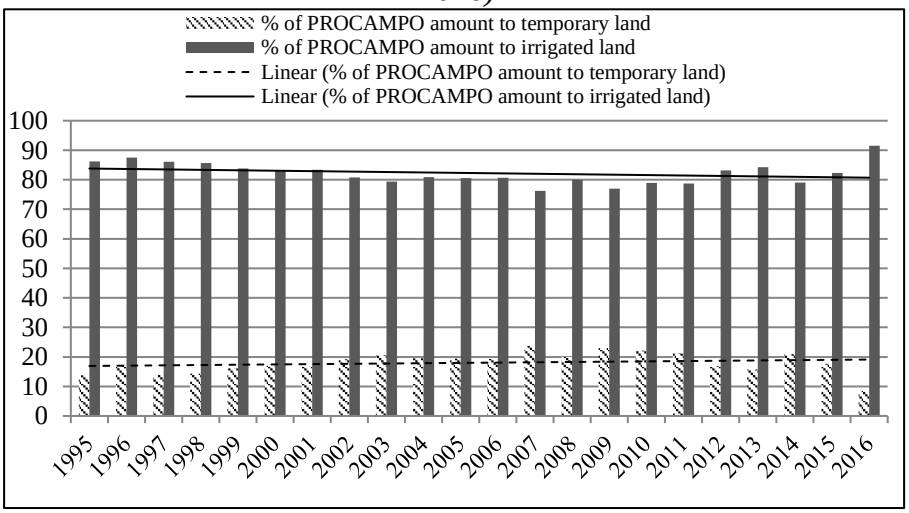
Figure 5: Percentage Base of Beneficiaries of PROCAMPO-PROAGRO in Sinaloa (1995-2016)



Source: Own elaboration with information from SAGARPA (2017), on PROCAMPO results and indicators.

It is evident that the concentration of benefits has a greater coverage among producers with temporary lands (which are the majority but are the least favored, given that the effective benefits with minors for them (see Figure 5). Added to this, the total land area is distributed mostly among large farmers. According to the Agricultural Census 2012 and 2014, large producers are those whose production exceeds one million pesos of the value of their production. In this sense, INEGI (2017) records that only 2.4% of farmers are responsible for 14.7% of the rural area. While in figure 5, it is observed that an average of 80% of the beneficiaries are farmers with rainfed land, in contrast to 20% of the amount of benefits to this type of rainforest producers are granted as a product of PROCAMPO (see figure 6).

Figure 6: Percentage Base of Beneficiaries of PROCAMPO-PROAGRO in Sinaloa (1995-2016)



Source: Own elaboration with information from SAGARPA (2017), on PROCAMPO results and indicators

Otherwise it happens, with farmers with irrigation production system who were benefited with PROCAMPO, corresponding to 20% on average per year (see figure 5), while level of amount or benefit corresponds to 80% on average per year (see figure 6). Although the strategy seems appropriate, by supporting PROCAMPO mainly with farmers with irrigated land, it makes it clear that the program bases its bases on subsistence agriculture. Even and that its scope extended to benefits for landowners of temporary and in poverty (OECD, 2010). Although, for this type of farmers (temporary and subsistence), PROCAMPO, as an instrument of public policy, has brought benefits, but they have been insufficient. While for rich farmers, the program leaves an inequitable spill when the amount of benefits is proportionally greater, when those are less than seasonal farmers.

5. CONSLUSION

The most general conclusion derived from the analysis of information available for this study is that it confirms that PROCAMPO is a subsidy that is part of programmable public spending with social and non-productive vocation; and therefore, a tax policy that represents part of the compensatory agricultural public policy, with a welfare-oriented nature of the subsidies granted to agricultural producers, which means that it is an insufficient resource to resolve the lags that lead to marginalization and poverty in the sector agricultural. A reality was observed that reflects a decreasing evolution in the provision of programmable public spending, subsidies and transfers. From the hypothetical approach it could be considered that the decrease of PROCAMPO is due to the reduction of the programmable public budget as a result of the budget deficit, so that the higher the budget deficit, the smaller the allocation of programmable public spending to PROCAMPO. As a result, farmers are harmed. Therefore, the program would make sense to compensate the "losers", if those who benefit were the majority, and certain minority interests would be harmed, but it loses meaning if the decisions only benefit a minority of agricultural entrepreneurs and it harms the majority of producers in the rural sector with peasant and seasonal ancestry. The findings reveal that the subsidies generated by PROCAMPO have been taken as a strategy of apparent solution to the situation of lag and insolvency of the agricultural sector; meanwhile, the income of its beneficiaries depends to a great extent on this subsidy to cover needs of a welfare nature that appear moderately covered, while their amounts are destined for the payment of food, transportation, clothes and medicines; however, PROCAMPO was not designed for that, but by definition it was designed to generate

productive, economic and social results. Faced with this, reality has been very far from the central purpose for which it was created to exist large discrepancies between what was expected and what has actually materialized. Given this approach, recognize that the annual income of a farmer is strengthened with the support of PROCAMPO; and that this will allow it to have greater economic capacity and greater productive capacity, it only reflects a conformist and paternalistic language, which suggests the limited existence of financial security and productive certainty, however, if this program did not exist, many of these producers could disappear farmers, and with them the standard of living of their families would worsen. Therefore, it is important that this program be maintained as a social policy that helps small agricultural producers, who have been poorly benefited by the program in terms of a zero reduction in their levels of poverty, since the "apparent increase" in its income, associated with its participation in the program, is insufficient because it does not compensate for the microeconomic loss due to increases in production costs and the decrease in the real sale price absorbed by the producer. Despite the lack of mechanisms towards the conversion of crops and the non-completion of technology transfer, it is necessary to rethink the disappearance of PROCAMPO as part of agricultural sector policy, as this would undoubtedly generate; given the current conditions, a negative economic and financial impact of great importance for the majority of the beneficiaries of the Program. To conclude, there is a need to reassess the importance of the agricultural sector and its impact on economic growth, which is why it is necessary to redefine a finance policy with sectorial guidelines, which will be used to set up concessionary instruments, subsidies and programs to finance and solve the competitiveness of agricultural activity. In this strategy, an essential condition is to align the fiscal policies with sectoral policies with the rest of the macroeconomic policies. That the State distributes a programmable expenditure to strategic sectors such as agriculture, where the multiplication effect of agriculture in the economy is prioritized, which is inherent and important to make visible the resizing of agriculture in the economy. The PROAGRO (before PROCAMPO), is still necessary and today more than ever, it is still relevant, given the limited financial and economic conditions of the sector. For what is proposed, a redesign in its structure, purpose, application and management on the basis of an integral finance policy that makes it possible to visualize the agricultural dynamics to which it would solve and clarify the multiplying effect that together would generate the tax relation between the beneficiary subjects and State, which would allow to visualize the sustainable agricultural mechanics that possibly improves its incidence in the GDP in the medium and long term. Another alternative to finance the agricultural sector, would be the creation of another type of agricultural development programs, consistent with the regionalization and agricultural vocation of the states of the country, where the State allows price stability and with it a synchronous and economic development. harmonized with the needs of each agricultural subsector, be it fruit, horticultural, industrial, intensive, extensive, irrigated or temporary. Finally, it is convenient to carry out more detailed analyzes of the impact of these programs at the regional and local levels, which allow public policy makers to have the necessary elements and a more useful diagnosis for the regions that make up the great mosaic of the region. geographic and cultural diversity of Mexico.

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SINALOA: THE FUTURE OF AGRICULTURAL SMES BEFORE THE NEW AGRICULTURAL POLICY

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ABSTRACT

This research work presents agricultural PYMES in the state of Sinaloa, México as a subject of study in a scenario where, based on their characteristics, the problems faced when it comes to internationalization are analyzed. The determining factors and the obstacles that restrict the possibilities of entering foreign markets are exposed and the different export strategies will be analyzed, in a scenario of business integration or export association that will allow a greater insertion in international markets and increase their competitiveness. Finally, the work presents a series of proposals and strategies to carry out the organizational schemes called export consortia and operationalized in agricultural Pymes in the state of Sinaloa.

Keywords: *Associationism, Competitiveness, Development, Internationalization, Pymes*

1. INTRODUCCION

If we study the past, we observe the present and we project the future, the primary sector in the state of Sinaloa was, and, we are called to be the engine that drives the economy towards better development stages, since from its origin this sector has given its dynamism, however, it must be recognized that, in the latest trends, especially since the entry into force of the North American Free Trade Agreement (NAFTA), the agricultural sector has been one of the more A serious stagnation has been achieved both in productivity levels and in a competition that is referred to. The foregoing has brought with it serious problems of various kinds, such as the high level of parcel rent in the face of the impossibility of accessing attractive financing sources for small producers, high production costs, the fall in market prices, others until the climate change that increasingly threatens the existence of species on the planet including the human. In the present work account first of the adverse conditions that has been going through the primary sector of the economy, particularly agriculture and as this has brought a process of decapitalization in the field and consequently a very limited regional development but it is negative, but we also maintain that from the incoming government of left profile and the economic policies directed to the Mexican countryside, there is the possibility that the primary sector initiates a very important recovery that brings with it a more balanced regional development and translate into higher levels of welfare of the population. Due to the high competitiveness that is currently developed in the different productive fields at regional, national and international levels, and the challenge that this represents for our region and state, it is justifiable to carry out this study, since it is necessary to generate opportunities for more equitable development and these are only achieved with the participation of government, research centers, society and of course the productive sectors., understanding that today not only compete against other regions of the country, but compete on a global scale. If we are able to balance the level of competitiveness of the different regions, it will allow designing strategies that determine its future performance and helps us to know what elements are required to develop new opportunities, without forgetting that this must bring with it the human development without which it does not have Reason to be. The investors of our region have a range of investment options of great importance, which can be strengthened under the scheme of balanced regional development. Therefore, it is important to understand the role that the government must play in different fields of its action to contribute to development, as stigliz l states when it affirms that the non-debatable roles of governments are clear enough: to protect property rights, enforce contractual obligations to foster competition, and provide public goods

such as research, technology, information and infrastructure. The most controversial roles are related to the redistribution of resources through forced measures, price stabilization, risk absorption and the provision of credit. . (Stiglitz, 1993.)

2. AGENTS OF CHANGE IN SINALOA'S AGRICULTURE

The importance of the present investigation lies in having clear each of the fields of action of the government and those that will be the responsibility of the different economic agents so that at the moment of making decisions, they define the responsibilities and scope of each one of them and the Focus your efforts on those areas that correspond to you. If we consider that one of the problems that afflicts all organizations is precisely their management capacity, especially those that have little specialized human capital as is the case of SMEs that are in economies that depend largely on the primary sector characteristic that identifies Sinaloa, then this study can contribute to the solution of much of this problem, by providing information that due to its relevance contributes to further studies in this field, the present work can provide elements for its possible use in a diverse range of problems that have to do with regional development. With regard to its theoretical value, it is intended to ensure that the information obtained from this research, as a guideline for broader studies on the subject and serve at the same time, as an input for discussion and analysis of problems similar to the one addressed in this paper. work, so we can say that if we look at the methodological usefulness then it helps to define a series of concepts that can be useful for the broader study of regional development issues making it clear where the information is that once treated and processed can become useful knowledge about the subject. It is necessary to make clear that, in this research, only the situation of the state of Sinaloa will be evaluated at the level of the role that the different actors of the agricultural sector must play in a strategy of associativity having as guide for this the theory of fourfold propeller. We will analyze those options in which there is the possibility of developing important vocational development strategies and capacities to promote activities that generate greater wealth and social welfare. The present study is limited to the state of Sinaloa, distributed by geographic zones with similar characteristics that allow its classification. Both the variables and the data presented that explain the problem studied in general will be valid as long as the conditions studied are present. Regarding the objectives pursued by this work, the analysis of the factors that affect the development of agricultural SMEs in the state of Sinaloa stands out, as well as the urgency to look for new organizational schemes oriented towards associativity within those that result from interest the Export Consortiums, the Clusters, among others, having as base of support the theory of the Quadruple helix as a proposal of productive organization that allows to elevate its competitiveness in the export markets and feels the bases to initiate a process in the medium term that allows to move from an agricultural economy to an agro-industrial economy where not only value is captured but also added and this can be appropriated by the productive agents and distributed in society, in such a way that this has an important and positive impact on the levels of regional development.

3. CURRENT SITUATION OF AGRICULTURAL SMES IN SINALOA

While it is true that the Mexican economy does not constitute an isolated entity, and therefore is affected by the dynamics of the world economy, it is possible to point out the variables that influence the "harmonious" performance of the economic system; nevertheless, we must advance that the course followed by the national economic system, at least during the years in which the so-called neoliberal policies have been applied, has been ultimately that of instability and general imbalance. Our country has traveled precisely because of the course by which it should not continue, at least desirable not only for the population but also for economic agents such as small and medium enterprises; since even in this process of imbalance and crisis there have been winners, who are the exception.

Keynes argued, in the mid-1930s, that the stability of the economic system and the general equilibrium, and consequently full employment, both of productive resources and of labor, were a function of the behavior of national income. Derived from their approaches, it was recognized that the economic system can be controlled by the government, as well as that the disturbances (crises) of the economic activity can be attenuated and corrected by the interference of the State in the economy (Rossetti, 1979); On the other hand, since national income is determined by the amount of national consumption plus the total investment made by private companies and the government, the general equilibrium of the economy, and therefore the stability of the economic system, can be maintained "Easily" if the government (State) adopts a compensatory fiscal policy that encourages investment, employment and consumption. In sum, among the factors that contribute to the balance of the economic system, government participation is vital, encouraging income and consumption, as well as investment levels. However, the neoliberal policy has opted for a contraction of consumption, the concentration of income and the reduction of public investment and the active role of the State in the promotion of production.
In Mexico, it is from 1982 onwards that the start-up of neoliberal policies began, which among other aspects implies the unrestricted application of free trade, labor flexibilization, reduction of State participation, among other actions. From then until the current six-year term, the average GDP growth rate is of the order of 2.5% (Deputies, 2014), with a marked decreasing trend between each presidential term. The above obviously is not the work of chance, but an economic policy that has replaced domestic production with imported products; however, if the Mexican producers, especially the enormous masses of smallholder farmers, had technical advice, credit, technology and guarantee prices, our nation would have its food sovereignty assured. As a result of the application of the neoliberal policy, not only the growth rates of agricultural activity as a whole have been reduced, and their participation within the total of production, but also the country has been led to a state of insecurity and even greater vulnerability, due to the growing international demand for grains dedicated both to human consumption and to the incipient production of biofuels, which has not only caused the rise of basic grains, but has also reduced the amount available in the international market (Rubio, 2008). As a result of the lack of interest on the part of the current policy, with regard to what happens in the agricultural sector, we find the question regarding the increase of agricultural production and productivity; for the specific case of the cultivation of corn, the most important food product for our country has been influenced by this policy. Thus, the yields in the countries that make up the NAFTA trade bloc have increased by just over 3 tons in a period of thirty years, in the case of the United States, and of 2 tons for Canada. In the case of Mexico, in the same period, yields have increased on average 0.5 tons. With the progressive withdrawal of the State with regard to agricultural development policies, along with a growing rise in the price of agricultural inputs and the lack of capital goods essential for carrying out agricultural production under the conditions means that it imposes on the world market, as well as applied research, it is practically impossible to have a profitable production of corn, and therefore to increase yields. Some results of this long crisis of the Mexican economy, and of agriculture in particular, phenomena such as that of migration have worsened even more than in past decades. In this sense, the national and international migration of Mexicans has been a constant phenomenon throughout the history of our country, their different behaviors, origins and directions have made it clear that this social phenomenon responds, among other factors, to the different economic crises in the rural sector (León, 2007). Finally, as balances of more than thirty years of neoliberal policies in Mexico, we can point out the low growth of GDP and agricultural GDP, accompanied by ups and downs and even with presidential periods of zero growth or negative growth rates, both for the agricultural sector as well as for the national economy as a whole; such is the effect on the agricultural sector, that in several basic crops at the same time as a reduction in the planted area there is a reduction even in the yields per

hectare, which is indicative of the fall in profitability of agricultural activities. The previous thing translated in a constant reduction of the participation of the agricultural GDP in the total of the generated wealth at national level; which effectively translates in that the agricultural producers, especially the small farmers producing basic grains, abandon the agricultural activities or perform them under conditions of no profitability. And as for income, there is a huge polarization in terms of the way in which it is distributed to the interior of the population. Along with this variable, the salary shows signs of contraction in terms of its ability to purchase goods; situation that further restricts the expansion capacity of the economy, by reducing the consumption capacity of the mass of employees; so it would urge a policy that encourages consumption, and with it the domestic market so that it serves as a platform for expansion to agriculture itself but even to the same industrial sector. However, continuing under the spur of a policy that privileges the concentration of income only contributes to exacerbating the already low level of consumption and maintaining a strong domestic market. Although the revision of these variables does not exhaust the effects that neoliberal policies have brought, this has made it possible to demonstrate other phenomena resulting from this economic policy, such as migration and poverty in rural areas; today, as never before, the country has accumulated a continent of labor that currently extends beyond the traditional places of reception of migrants; the balances are many, but these are some of the most obvious and public domain. In addition to the incidence in these variables, others have appeared such as the increase in violence and drug trafficking, among other phenomena. One of the fundamental weaknesses that SMEs present, which paradoxically gives them the flexibility and agility necessary to respond to the changing demands of the market, is the small size of the same or the impossibility of generating an economy of scale allow to be competitive in the world markets. According to the researcher Juan Carlos Segura Mexia, small and medium enterprises (SMEs) are increasingly aware of the need to develop skills and competencies that allow them to expand their business geographically (Segura, 2014). And he adds that these tend to have difficulties exporting to foreign markets since they may lack the necessary financial means and knowledge, may not comply with foreign regulatory requirements, or may produce goods in quantity and quality not suitable for foreign buyers among many other potential problems. However, these problems can often be overcome through cooperation between SMEs (UNIDO, 2005). The OECD (2009) exemplifies the internationalization of PYMES and a theme of considerable relevance, mainly due to the creation of an observatory as a consecuencia of the efecto de cruce de fronteras de las empresas and the capacity of the demonstration of the PYMES to lead a national eco-economy, regional and global level. As pointed out by Zignago, it is relevant to locate this phenomenon in a global environment of recurrent financial crises such as the most recent one in 2008, where the exporting PYMES are inserted, and where structures and international order begin to undergo major changes by the collapse of world trade that followed the financial meltdown of Lehman Brothers, which turned out to be very severe, widespread, sudden and synchronized (Zignago, 2010). This debate of world trade is clearly reflected by the decline in demand for products that generate economic consequences that are unfavorable for countries in their interaction or economic interdependence. Perhaps the most remarkable thing of this debacle was perhaps, its vertiginous propagation and its impact on a globalized level. Hodge, Williams, Lawrence (2005), quoted in Vega (2012), highlights that in an increasingly globalized world it becomes a complex environment that, as markets evolve, a higher level of competition is presented, which causes a great risk and uncertainty, which is propitiated by the phenomenon of internationalization. (Vega, 2012). In this globalizing era, it is urgent for SMEs and especially for those of the agricultural sector to be the weakest, to develop new forms of organization because of the role they play in the aforementioned economic interdependence. These new organizational forms or strategies must comply with certain characteristics as proposed (Rodriguez, 2003) who points out that they must be designed with flexible,

decentralized, participatory, competitive structures, with a high degree of automation that should be oriented towards internationalization and participation in international markets. On the other hand, and in agreement with (Jiménez, 2007) that points out that the processes of openness and globalization are of the utmost importance for Mexico to conduct research that will lead us to determine the behavior of the indicators related to the internationalization process. Thus, in this environment described above we can affirm, as do several researchers, that all countries have seen their exports decrease significantly in a very similar period as a result of the crisis in which the international economy is inserted and where consequently Mexico is not exempt. Safe (2014). On the other hand, we agree that the international economic environment is currently characterized more and more by its dynamism and globalization with trends such as the growing interdependence among countries, the formation of regional blocs, the emergence of emerging economies in Asia and Latin America, as well as the surprising technological advances in different sectors, configure a global environment increasingly competitive and changing, (Lugo, 2007). The opening of new markets abroad requires technical, human and financial means that are not available to many small and medium export companies, especially when it comes to going to countries with difficult access, such as China, Russia or India, (Barrios, 2012). In the case of Mexico, derived from this globalization, various free trade agreements have been signed, which has put us on the international scene; however, our companies do not have the adequate productivity to compete within this globalized environment, therefore , it is necessary to encourage and favor the development of Mexican SMEs. According to (Ysasi, 2012). General Director of the Mexican Foreign Trade Business Council (COMCE), underscores the need to promote a strategy between government and the private sector to link SMEs with export activity, which do not have the resources or the capacity required to adopt individual strategies. so the best alternative they have is to adopt associative strategies, through the complementation with other SMEs and support institutions, Barrios (2012). This, from my point of view, is a necessary condition that must be developed and implemented so that small businesses are sustainable over time and so that, in Mexico, and particularly in Sinaloa, we begin to compete with added value and stop competing with costs. All this "to generate companies that last over time and that generate better income for workers, better products for markets, with better technology and greater competitiveness of the country in the international context". Other lines of action that need to be put in place have to do with building public policy that enhances the productive vocations of each region, encouraging the creation of value chains. In the same way, it is necessary and of vital importance to accelerate the process of innovation throughout the country in order to reduce the differences between regions. It should not be forgotten that the current world is marked by the exponential change in technology and the way of generating knowledge, which makes it urgent to promote public and private investment in science, technology and innovation. But we must go further still, that is, we must ensure that new ideas are reflected in companies and that employees are better able to take advantage of them and contribute to improving the quality of life of society. In the case of Sinaloa, it is possible to confirm the need to generate new organization schemes under the characteristic of cooperativity, that is, associative schemes such as export consortiums, Clusters, cooperatives, among others, since, in recent years, companies are disappearing due to lack of competitiveness, hence the Sinaloa businessmen must implement in their organizations a good administration that emphasizes above all in recognizing that international competition is something that is here to stay and that we must turn our eyes to the interior of the organization and analyze what are the advantages of local companies against transnational companies and take advantage of them, as stated (Cereceres, 2007). On the other hand, the enormous opportunities offered by the associations are expressed in the natural process of collective learning that they entail, which is embodied in innovative management processes, and is derived from the articulation of models that impact long-term growth economic and competitive to

boost diverse regions (Cervilla, 2007). It is therefore convenient to advance in the development of a comprehensive strategy so that SMEs can appeal to the formation of network-based businesses, given the need to face their traditional constraints and enhance greater capabilities. In fact, it has been shown that they have a very positive impact in terms of efficiency and competitiveness in this business stratum, when SMEs act in an associative way for the acquisition of raw material at low cost, to solve certain technological problems, to advance training or qualification of the personnel, to promote processes of innovation and technological development of common interest, among others. It is important to remember that, as a result of economic liberalization, the improvement of transport and innovation in ICT, SMEs are increasingly exposed to global competition, while isolated companies find it increasingly difficult to implement them. penetrate foreign markets. Given their relatively small production capacity and limited financing capacity, SMEs find it difficult to compete with multinationals capable of exploiting economies of scale and, now that the product life cycles are progressively reduced, they are unable to position their products. abroad (Bittan, 2011). This model that could well be applied to the case that concerns us in the state of Sinaloa is the call of the FOUR Hélices where the government with public policy, workers, businessmen and civil society join together with the research and innovation centers to generate value in companies. The quadruple-helix innovation model refers to the one in which society joins forces with organizations, academia and public administration to direct innovation efforts that they could not independently achieve.

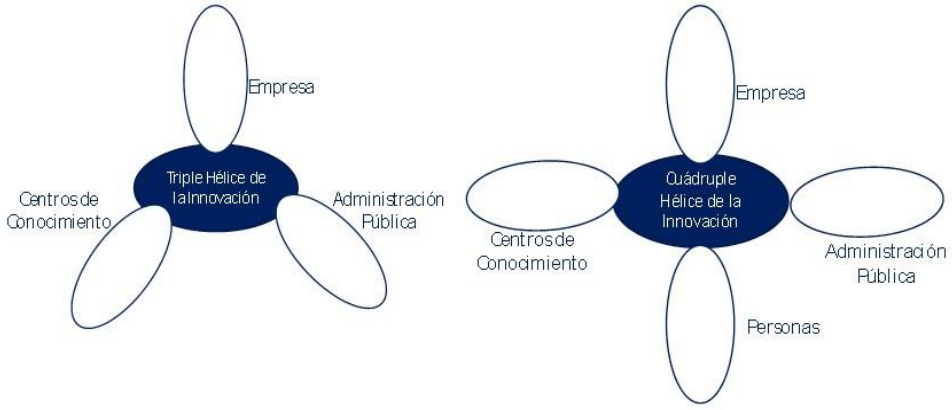


Figure 1: Model of the quadruple helix (Social XXII, 2010, Pag.)

As can be seen in the previous figure, the triple helix model referred to a model in which society was not taken into account. In some references, this fourth helix is usually referred to as a society or it is also usually referred to the individual people themselves. This last description is very much in line with the importance that concepts such as user innovation are taking. The fact of incorporating people as a key element in the innovation model has led public administrations to favor mechanisms so that companies, academia and people can relate to each other. One of the most common mechanisms are the Living Labs, which allow the development of projects in collaboration with citizens, companies and public and private research centers - Public Private People Partnership or PPPP- (Sanguesa, 2007).

4. CONCLUSIONS

Sinaloa, with prosperous and competitive economy. To achieve the prosperity of the population, innovative public policies are required that stimulate the creation of companies and the growth of existing ones, promote the attraction of investments and diversify production towards avant-garde economic sectors, making sustainable use of natural resources and capital human.

The constant changes of the factors that affect the development and the accelerated dynamism of the world economy are the opportunity to expand the participation of the State in programs and public policies that encourage competitive economic development, promoter of prosperity and the quality of life of the Sinaloans. The United Nations (UN) devotes more than 70% of its activities to economic, social, sustainable development and humanitarian assistance. The purpose of economic development is to mitigate global poverty and reduce inequality. Economic policies should focus on the sustained economic growth of the regions and improve their position with respect to others. Leader in sustainable and competitive agriculture, in profitable and productive livestock, and in the national tourist activity with global projection
Policies for development must be accompanied by institutions and regulatory frameworks that encourage innovation and investment, creating better and fairer systems of production and distribution of goods and services. Sinaloa being a key player in the production and export of agricultural products, the Sinaloan field, today, however, has indicators of depletion that are reflected in the low growth of productivity, as well as its low competitiveness and profitability. Moreover, it should be admitted that primary production in the region lacks sustainable management. In recent years, the agricultural sector of the state has had a growth rate lower than the national and state economy. For this reason, it is necessary to boost the productivity of strategic sectors, mainly the production of grains and food, with effective strategies and lines of action to increase the competitiveness of the agricultural sector and profitability of producers. For this, it is necessary to redesign the production model for the field, promoting new strategies with the commitment to renew the field and the agricultural sector of the state based on innovation, sustainable development, the incorporation of ICT among producers, as well as the renovation of the infrastructure of the Sinaloan countryside.

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INTERNATIONAL STANDARDS OF FINANCIAL SUPPORT STABILITY OF THE BANKING SYSTEM

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ABSTRACT

Ensuring financial sustainability of the banking sector is connected with effective system development of crisis management and regulation at the micro-, macro- and mega-levels. The main reasons for the development of crisis management systems for ensuring sustainable development of the banking sector are:

- *the extreme complexity of the mechanism of the international banking system and the use of a significant number of new financial instruments;*
- *variety of operations and the movement rate of financial capital;*
- *financial globalization and integration, that enhance the effects of systemic risks on the process of extrapolation from the banking sector to capital and derivative markets;*
- *the availability of information asymmetry in the financial market;*
- *the process of introducing common standards in the field of bank management;*
- *improving the management of banking activities, particularly anti-crisis management, based on the harmonization of international and national regulatory systems.*

The conclusion is that the transformation of international standards for providing sustainable development of the banking sector contributes to the recognition of the scale of the impact of the crisis factors on the solvency, liquidity and capital adequacy of banks; there were identified preventive measures to avoid crisis situations, crisis management techniques and measures to overcome the threat of a crisis with the least losses for the banking sector.

Keywords: *anti-crises management, Basel principles, financial stability, macroprudential policy*

1. INTRODUCTION

Ensuring financial stability of the banking sector is connected with development of an effective system of crisis management and control at the micro-, macro- and mega-levels. The world central banks are responsible for the implementation of an effective monetary and credit policy, which implies the application of effective anti-crisis regulatory instruments affecting the financial stability of the banking system. Assuming that the crisis management at the mega-level is associated with the development and transformation of international standards of banking business, besides the central banks, other state structures should be involved in these activities which have the authority to do in this sphere.

2. ANALYSIS OF LAST PUBLICATIONS

Scientific works of many domestic and foreign researchers are dedicated to the issues of implementation of international standards for the functioning of national banking systems.

Among them are: (Keller, 1999); (Juglar, 1962); (Piet, 2010); (Eichengreen, 2003); (Dovhan, 2011); (Mischenko, 2013); (Naumenkova, 2015); (Osadchy, 2010), and many other scientists. But issues of the formation of anti-crisis systems relating to the financial stability of the banking sector remain unresolved both in global and national economies. The main reasons of these issues are: the extreme complexity of the mechanism of the international banking system and the use of a significant number of new financial instruments;variety of operations and the movement rate of financial capital that increases the banking risks and the uncertainty of the impact of their implementation; financial globalization and integration, reinforcing the impact of systemic risks on the process of extrapolation from the banking sector to capital markets and derivatives markets; availability of information asymmetry on the financial market, which requires improving the explication of information processes and ensuring transparency through the use of macro-prudential indicators that reflect the functioning of the interbank money market, repo markets, shares, bonds, derivative financial instruments; the process of introducing common standards in sphere of bank management; improving supervision over the banking activities (particularly in the conditions ofcrisis), based on harmonization of international and national regulatory systems; providing technical compatibility of infrastructure, transparent price policy for the appropriate banking and financial services (Makarenko, 2008); (Kuznietsova, 2009). The aim of the work is to systematize the basic concepts of the provision of anti-crisis financial sustainability of banking systems in accordance with international standards.

3. THE FORMATION OF THE PRINCIPLES OF ANTI-CRISIS FINANCIAL STABILITY OF BANKS MANAGEMENT

Formation of the anti-crisis principles of financial sustainability of the banking system requires taking into account the factors which should be considered at the mega, macro and micro levels: mega-level factors (global financial imbalances, the cyclical economic development, the problem of ensuring international financial stability and liquidity); macro-level factors (disproportions in the financial market development, the formation and spread processes of systemic risk, disintermediation, financial innovations and communications, information asymmetry on the financial market); micro-level factors (systemic nature of the financial banking instability). The purpose of crisis management of financial stability of the banking sector system is to recognize the full extent of the impact of the crisis factors; to identify ways and methods of crisis management, measures to overcome future crisis with the least losses (table 1).

Table following on the next page

Table1: Levels of anti-crisis management of financial stability in the banking sector (Kovalenko, Dadashev, 2016, p. 58).

Elements of level system	Mega-level the leading system	Macro-level the leading and led system	Micro-level the led system
Managing the realization process	stress testing; macro-prudential regulation; forecasting, corrective measures	monitoring, methodical approaches to the assessment and formation of financial stability reports; corrective measures	choice of management strategy, development and implementation of anti-crisis programs for financial stability
Agents of management	international regulators	internal system regulators	banks
The object of influence	destabilizing external environment factors	the formation and spread processes of systemic risk	internal banking risks
The aim of influence	recognizing the full extent of the impact of the crisis factors; identifying ways of anticrisis regulation and levelling crisis leverages	timely identification and minimization of crisis factors	timely identification and minimization of crisis factors
Instruments of influence	standardization and unification of the anti-crisis laws around the world; the development of financial stability indicators; a common system of financial reporting standards and transparency of banking activities	the implementation of preventive measures over the bank supervision; early diagnostics of the bank financial problems; improvement of banks and deposit insurance system; setting standards of banking activity, taking into account the specifics of state	stress testing; establishing internal limits and regulations; reorganization of the banks on their own initiative; special measures: benchmarking, outsourcing

There are a lot of organizations engaged in improving the regulation and supervision over financial institutions in the international area (table 2).

Table following on the next page

Table 2: Institutions and instruments of crisis management at the international, national, regional levels (Dovhan, 2011, p. 224; Kovalenko, Harkusha, 2015, p. 64)

	Institutions	Instruments
Anticrisis regulation at the international and regional levels	*International regulatory organizations:* - International Monetary Fund; - The World Bank; - Basel Committee on Banking Supervision; - Financial Stability Board; - The United Nations. *Regional regulatory organizations:* - regional development banks; - EU regulators; - multilateral regional organizations; - Forum of Banking Supervisors SEANSA; - GCC; - Caribbean Group; - Arabic Committee.	- standardization and unification of anti-crisis legislation around the world; - the development of financial stability indicators; - the allocation of general standards of financial stability in banking sector; - the financial, informational and professional assistance during the financial crisis.
Anticrisis regulation at the national level	*Central banks and national regulators:* - Federal Reserve System (USA); - Office of the Superintendent of Financial Institutions (Canada); - Financial Market Authority (Austria,the Netherlands); - Financial Supervisory/Services Authority (Denmark, Estonia, Hungary, Sweden); - Financial and Capital Market Commission (Latvia); - Financial Sector Supervisory Commission (Luxembourg); - Financial Service Centre (Malta); - Kredittilsynet (Norway); - The Interministerial Committee for Credit and Savings (Italy); - Bank of England. Prudential Regulation Authority (Great Britain). *National megaregulators:* - Central Bank of Ireland (Ireland); - Banque de France, Prudential Control Authority (France); - Bank of Greece Capital Market Commission (Greece); - Bank ofLithuania (Lithuania).	- the implementation of preventive measures over the bank supervision; - early diagnostics of the bank financial problems; - cooperation with the "problem" banks; - improvement of banks (provision of additional financial resources, changes in the organizational bank structure, the personnel policy optimization); - the formation of a deposit insurance system; - setting standards of banking activity

Based on previous mentions - the main purpose of anti-crisis measures is to ensure financial stability, stability and solvency of banking. Therefore, governance and banking supervision should ensure the stability and sustainability. Public administration process of selecting and implementing anti-crisis measures should be coordinated on methodological, macro and micro levels, taking into account the specific characteristics of functioning of banks, its importance for the state, including state participation in the capital of banks and the economy as a whole (table 3).

Table following on the next page

Table 3: Matrix participation of management in the operation of banks and systems (Kovalenko, 2017, p. 138)

Governing bodies	Normal operation	The appearance of the first signs of crisis	Crisis
Legislative power	x	-	x
Institute Presidency	x	-	-
The government, as a body of higher executive	x	x	x
Central Bank, Ministry of Finance and other state authorities involved in the management	x	x	x
Shareholders and managers of banks	x	x	x
International organizations	x	x	x
The supervisory authorities of other countries	x	x	x

The main anti-crisis measures to overcome the financial crisis included: the development assistance programs of troubled banks, measures to strengthen deposit guarantee systems; recapitalization of banks. Thus, international experience implementing anti-crisis measures to counter effects of the financial crisis demonstrates the existence of various mechanisms and schemes braking crisis. In general, the advantages and disadvantages of the implementation of anti-crisis measures largely depend on regional characteristics of their implementation and how practical tools linked with a set of anti-crisis model of action in each country. The efficiency and effectiveness of anti-crisis measures, which conducts the Central Bank can be estimated using the values of the profitability of the banking business (table 4).

Table 4: Top 1000 World Banks 2018: Top 5 by Tier 1: Global (Top 1000 World Banks ranking, 2018)

no	Bank Name	Country	World Region	Tier 1, Capital, $m
1	ICBC	China	Asia-Pacific	324,126
2	China Construction Bank	China	Asia-Pacific	272,215
3	Bank of China	China	Asia-Pacific	224,438
4	Agricultural Bank of China	China	Asia-Pacific	218,104
5	JP Morgan Chase & Co	US	North America	208,644

4. PLACE OF MACRO-PRUDENTIAL REGULATION TO ENSURE FINANCIAL STABILITY OF THE BANKING SECTOR

It is necessary to refer to the implementation of the concept of macroprudential policy to measures for ensuring financial stability to the banking sector. The main features of macroprudential regulation are the following:

- macroprudential regulation – a complex of the preventive measures directed to minimization of systemic financial crisis;
- the purpose – management of systemic risk, that is the risk connected with the terms of providing financial services caused by the deterioration in terms of all financial system or its part having potentially negative consequences on real economy;
- objects of regulation – relationship between financial intermediaries, the markets, infrastructure of the financial market, and also between a financial system and real sector of economy;
- problems of regulation – support of resistance of the financial system to aggregate shocks; restriction of excessive financial risks which are assumed by a financial system in general; smoothing of a financial cycle (Kovalenko, Dadashev, 2016).

Macroprudential regulation is concentrated on systemic stability of financial sector, but not on insolvency of separate banks. At the same time special attention is paid to systemically important banks and their interrelations in the financial market as the risk of systemic stability depends on collective behavior of participants of the financial market therefore risks in a financial system for regulation will gain endogenous character (table 5).

Table 5: Systematization of macro prudential measures

№	Problem	Tools
1.	Macroeconomic risk and risk of "financial bubbles"	• taxes on consumer crediting (tax on the main amount of debt) • reserve requirements;
2.	Credit risk and market risk	• limits of crediting volumes; •standards of a ratio of credit volume and cost of pledge (loan-to-value ratio – LTV ratio); • standards of a ratio of the sum of debt and the income (debt-to-income ratio – DTI ratio); • creation of counter cyclic / dynamic reserves (countercyclical/dynamic provisioning), formation of reserves for possible losses according to loans; • change of coefficients of risk on different types of crediting; • restrictions for "short sales"; • restrictions for operations with CDS (credit default swap).
3.	Currency risk and risk of flows of the capital	• taxes on operations with the capital; • restrictions for open currency positions of banks; • restrictions for investments of assets in foreign currency; • restrictions for loans in foreign currency; • restrictions for investments for nonresidents in national assets; • special requirements for licensing; • administrative measures;
4.	Documents BKBN; realization of banks monitoring by "Basel III", realization of Basel reforms in member countries of BKBN; stress testing	

Thus, process of transformation of the international standards to ensure financial stability in banking system is directed, first of all, to development of crisis responding measures of systemic risk, involving sharp growth of interest rates, increase of banks problem and debts, essential reduction of crediting, chain bankruptcies, transition to unprofitable model of banking activity, a prevalence of speculative activity over investment financial activity, large-scale fall of price of securities, a delay of calculations, bank panic. Macroprudential tools is a wide range of tools that are used to prevent the occurrence and spread of systemic risk in the financial sector in order to minimize losses from irregularities in financial services. The global financial crisis led to review approaches to supervision of systemic their relationships and their regulation, and the need for introduction, sophisticated tools of identification and limiting systemic distribution:

- First, provide to regulators and oversight a special mandate to monitor systemic risk;
- Second, the nomination additional requirements for financial institutions with regard to their “contribution” in the generation of systemic risk.

International regulatory practices identified tools for identifying systemic risk (table 6).

Table 6: Tools for identification and measurement of systemic risk (Michenko, Naumenkova, 2014; Blancher, Mitra, Morsy, and others, 2013)

№	Tools	coverage			Information requirements	
		Institutions	Markets	Sectors	Periodicity	Type of data
1.	Conditional Value at Risk, *CoVaR*	+		financial	high	these bank balance sheets and asset prices
2.	Joint Distress Indicators	+		financial	high	asset prices
3.	Returns Spillovers	+		financial	high	asset prices
4.	Distress Spillovers	+	+	financial	high	asset prices
5.	Market-Based Probability of Default	+		financial and corporate	high	these bank balance sheets and asset prices
6.	Debt Sustainability Analysis			external and state	low	these payments balance and tax information
7.	Indicators of Fiscal Stress			fiscal	low	tax information
8.	Sovereign Funding Shock Scenarios		+	financial and state	average	the investment framework and data bank assets
9.	Asset Price Models		+		average	prices of assets and data of cash funds
10.	Balance Sheet Approach			key sectors	low	these interpectoral the balance
11.	Systemic Contingent Claims Analysis	+		financial	high	these bank balance sheets and asset prices
12.	Cross-Border Interconnectedness	+		bank	low	cross-border transfers and data balances
13.	Cross-Border Network Contagion	+		bank	low	cross-border transfers and data balances
14.	Systemic Liquidity Risk Indicator	+		financial	high	these balances and prices asset
15.	Regime Switching		+	financial	high	asset prices

The implementation of monetary policy is based on the implementation of Central Bank principles.

- Independence - Macroprudential policy has be independent of other central functions banks and regulators (monetary policy, micro-prudential supervision) and from external ones influences of the financial sector or authorities.
- Transparency - Goals and grounds for application macro-prudential instruments should be understandable for financial market participants and the public.
- Preventive approach - The central bank should Identify systemic risks in advance and on time take measures to minimize them.
- Predictable (rational) flexibility (guided discretion) - Macro-durability tools should be apply according to advance defined rules.

- Coordination - Efficiency of macroprudential the policy depends on its coordination with others politicians that are competent the central bank and other authorities.
- Proportionality - As a result of application macroprudential instruments to financial ones institutions will be subject to certain requirements. They should be proportional to the contribution specific institution in the total size of systemic risk.
- Avoiding Regulatory Arbitration - Macroprudential policy will only be effective if the financial market participants do not will be able to avoid restrictions by migrating toless regulated segments.
- Taking into account national peculiarities - Macroprudential policy should be taken into account national features of the financial system, so that the selected tools are effective and contributing achievement of goals.

5. CONSLUSION

Transformation of the international standards of a sustainable development of the banking sector are possible through formation of system of anti-recession financial stability which main goal is recognition of influence of crisis factors on solvency, liquidity and capital adequacy of banks; definition of preventive measures for prevention of crisis situations, methods of crisis management and measures for overcoming the threat of crisis with the minimum losses for banks. The main requirement to a banking capital is its use for compensation of financial losses. "Basel III" provides an exceptional structure of own capital with not enough liquid assets which can't be used for covering losses. According to the results of empirical researches which are carried out by western experts, measures for increase of standards of banking capital, introduction of coefficients of liquidity, adoption of more tough standards of the capital provided by the Basel III program for large international banks will lead to decrease in growth rates of GDP. But at the same time new rules can promote increase of stability in world economy and decrease in probability of bank crises. At the present stage of development of the financial market great attention is paid to the question of development and realization of the macroprudential policy providing stability of development in banking sector. In this regard special attention deserves identification of tools of macroprudential policy, in particular, defined by "Basel III"– as creation of the buffer and countercyclic capitals. Realization of macroprudential policy provides the solution of the following tasks. First, definition of institutional bases of macroprudential regulation. Secondly, measurement of systemic risk. For measurement of systemic risk the macroprudential body traces credit risks, risks of liquidity, market risks, and also concentration of these risks with the purpose of making decisions on the most effective measures for their overcoming. Thirdly, in terms of globalization of the financial market it is necessary to coordinate macroprudential regulation that can be promoted by universal tools and the international agreements on uniform use of such tools. In our opinion, each commercial bank needs to develop organizational and economic mechanism of the analysis and an assessment of future tendencies of capital sufficiency while introducing new regulatory requirements according to requirements of "Basel II" and "Basel III". The algorithm of the similar mechanism can include four main stages: choice of scenarios of testing, payment under this scenario, analysis of results of calculation, development of recommendations taking into account the received results. As the experience of many countries, especially in times of crisis, a prerequisite for implementation of functions enabling monetary policy to ensure exchange rate, price and overall financial stability is its coordination with fiscal policy. Lack of coordination of monetary and fiscal policy affects the state of public finances, bank-lending conditions and the stability of the financial system as a whole. The result of this inconsistency can be high yield on government bonds, which stimulates increased cost of funds in the money market and thereby undermine the efforts of the Central Bank to reduce of interest rates.

The most important task today is to coordinate the monetary policy and macroprudential measures as among the causes of the financial crisis are structural weaknesses in financial systems. In the arsenal of monetary policy is no effective tools to address these deficiencies. In this case, the macroprudential regulation will be more effective. However, it is necessary to evaluate the effect of macro-prudential measures on monetary policy transmission channels (for example, limiting the dynamics of loans). Thus, the effective coordination of monetary policy and macroprudential policy - the key to financial stability. The practice of recent years has shown that central banks have accumulated considerable experience in monitoring macroeconomic changes affecting financial stability. Therefore, they will continue to play a crucial role in both price and overall financial stability. In determining the discount rate of the Central Bank should focus on its approach to the maximum base rate "overnight", which provides real levers of money market liquidity. The implementation of tight monetary policy is an obligatory condition for restoring macroeconomic and financial stability. In a crisis, with the aim of curbing inflation, ensuring stability and restore confidence in the banking system the central bank should conduct a restrictive monetary policy, while ensuring positive real interest rates. In terms of implementation of tight monetary policy fiscal policy should not be expansionary. The degree of hardness or softness of the policy should be consistent with the nature of other policies through their coordination.

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PROVIDING SAFETY AND HIGH QUALITY OF PRODUCTS IN ENTERPRISES AND ORGANIZATIONS BASED ON THE REQUIREMENTS OF INTERNATIONAL STANDARDS

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ABSTRACT

It is important that the quality and safety of the products produced in the time of rapid development of science and technology meet the modern requirements. Therefore, ensuring the safety of the products, as well as the production process, the raw materials and semi-finished products used in this process, and the high quality of the product are taken into account in the International Standards. Manufacturers from different countries around the world apply the requirements of the International Standards at all stages of the production cycle and product life cycle irrespective of their production capacity. In the world practice these Standards are widely used: ISO 9000, ISO 22000 (based on HACCP system), ISO 14000, ISO 31000, GMP (Good Manufacturing Practice). These normative documents have been updated over time and improved versions are widely used today. In a number of countries, a national standard project has been developed and implemented by harmonizing them. The use of such standard projects in enterprises and organizations creates the conditions for high quality products, cost-effective production process, products with low cost value and high quality. The products obtained through the application of international standards are of high quality, low cost and have high purchasing power in local and international markets. Thus, as a result of the application of international standards, each stage of the production process is systematically monitored, potentially possible risks are explored, and an emergency response plan is developed for continuous improvement. Thus, with less material resources, high profitability and high economic efficiency are achieved, which, in turn, plays a positive role in economic development.

Keywords: *Continuosus improvement, International Standards, Production process, Products, Quality, Safety*

1. INTRODUCTION

It is mandatory for enterprises and organizations to establish, manage and monitor their quality control systems, integral standard operating procedures and other quality documents to provide high-quality products and services to fully satisfy customer needs and expectations, so high quality and safety are an essential basic requirements taken into account by in the International Standards. To date, a number of standard projects have been developed in many leading countries around the world, allowing various different international organizations to make significant improvements in production, economics, medicine and many other areas and to get products and servises of high quality and safety. These projects have gradually improved, have been tested and applied by many manufacturers in different areas of businesses. Such standards could be an example of ISO 9000, ISO 22000 (based on HACCP system), ISO 14000, ISO 31000, GMP (Good Manufacturing Practice), ISO 31000: 2009 and etc. Each of these standards is normative documents that are widely used throughout the world, enabling the safety and high quality of product of the area in which they are applied.

2. WHAT IS THE INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)?

The International Organization for Standardization (ISO) is an international standard-setting body that creates documents that provide requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose. Organization published 22602 International Standards that are used in all areas of human activity, thus ISO series standards are the most widely used standard projects all around the world (https://www.iso.org/home). Let's take a look at a few ISO standards that are widely used before, during and after the production process and that are relevant to high quality and safety of product, production process, environment and etc.

2.1. International Standards that are developed by ISO and used in production and provides high quality and safety

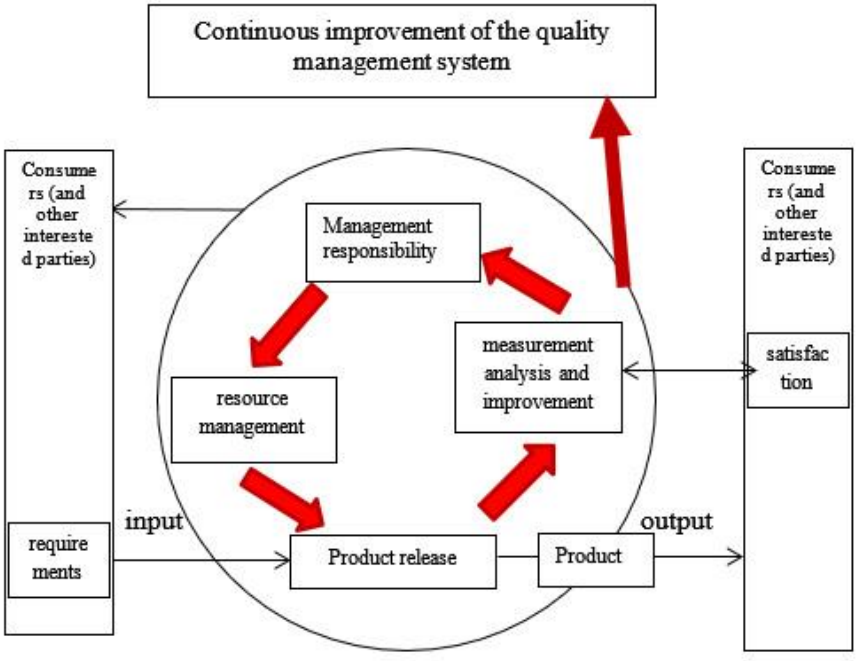
2.1.1. ISO 9000

ISO 9000 is the international series standards of quality management systems and designed to help organisations ensure that they meet the needs of customers and other stakeholders while meeting statutory and regulatory requirements related to a product or service (ISO 9000:2015 - Quality management". ISO). Here are seven quality management principles (QMP) of ISO 9000 series are based on:

QMP 1 – Customer focus;
QMP 2 – Leadership;
QMP 3 – Engagement of people;
QMP 4 – Process approach;
QMP 5 – Improvement;
QMP 6 – Evidence based decision making;
QMP 7 – Relationship management.

This standart is applying in this sequence that are the principles listed.

Figure 1: Basic provisions for the introduction of a quality management system (quality management principles, ISO directories)



2.1.2. The international standard ISO 22000

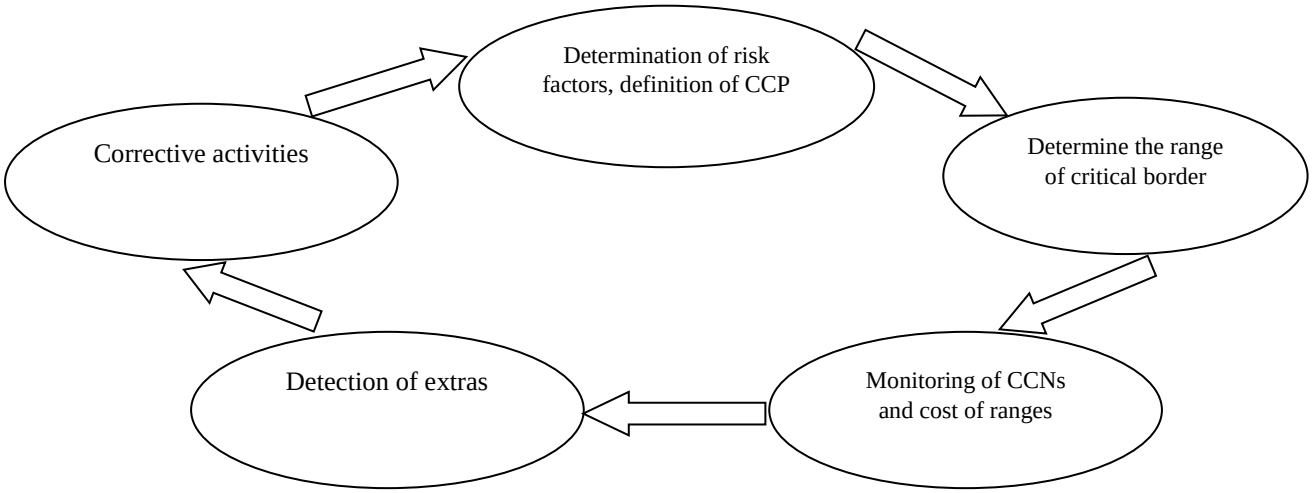
The international standard ISO 22000 can be applied independently of other management system standards. At the same time, it is built on the basis of the ISO 9001 standard to enhance the compatibility of the two standards, which facilitates the creation of integrated quality and safety management systems. The ISO 22000 international standard specifies the requirements for a food safety management system and that system involves the following elements (Сурак Джон Г.,2008):

- interactive communication;
- system management;
- prerequisite programs;
- HACCP principles.

HACCP is a system for managing and controlling risks that may arise during the whole process from the delivery of raw materials to the storage or shipment of finished products (*Аршакуни В. Л., 2008*). Therefore, it should be systematic, all-encompassing, fully executable and constantly supported, and should be based on 7 basic principles defined in the Codex Alimentarius and outlined below:

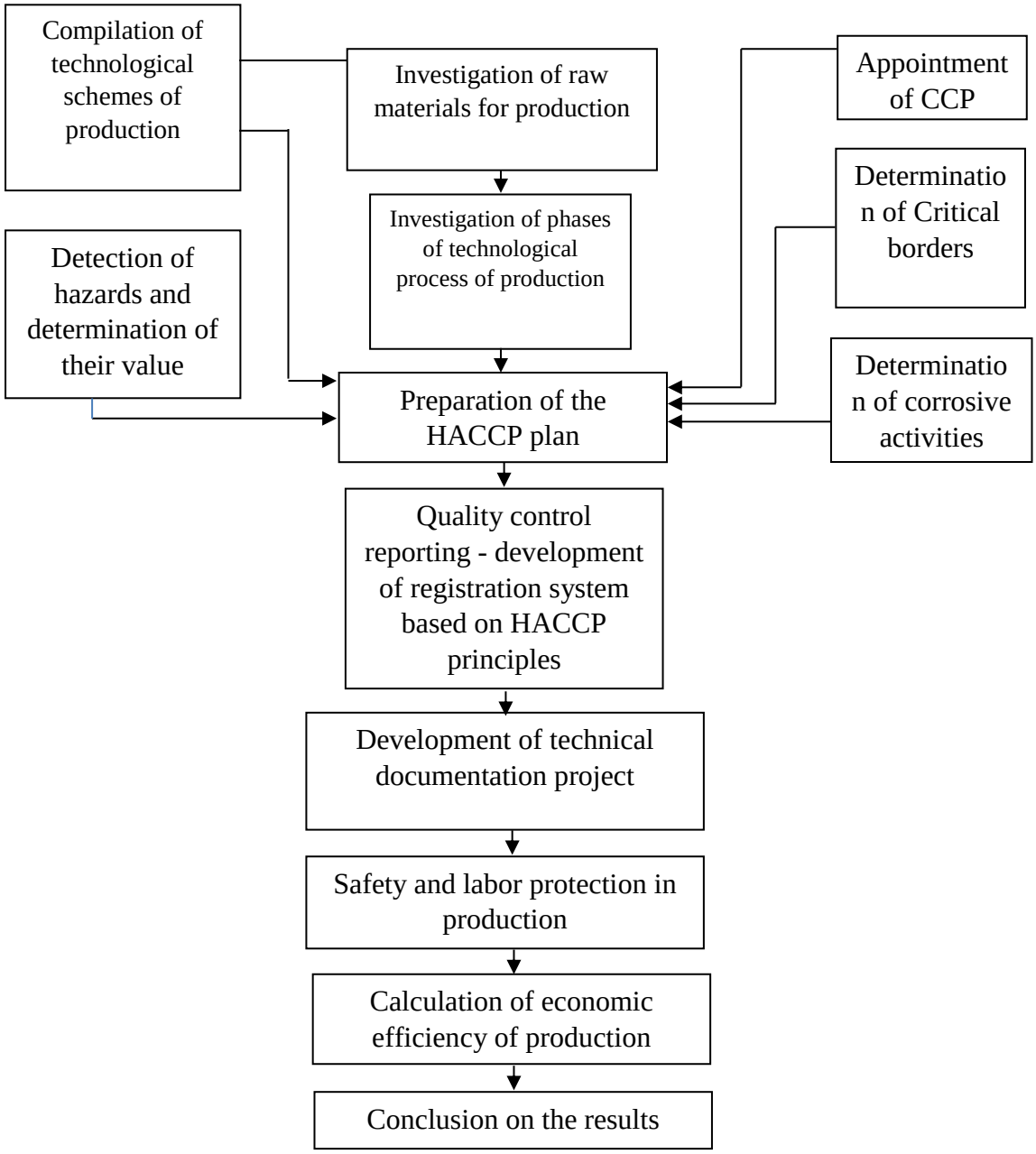
1. Conduct a Hazard Analysis
2. Identify Critical Control Points
3. Establish Critical Limits
4. Establish Monitoring
5. Establish Corrective Actions
6. Establish Verification
7. Establish Documentation and Records

Figure 2: Periodic scheme of risk management according to HACCP system principles (Е. Ю. Путилина., 2013)



The implementation of the HACCP system will require a certain amount of knowledge, but first of all, it is knowledge of its product, its raw materials processes, and also an understanding of risks that may threaten the health of consumers. HACCP system applying also requires personnel training and personnel involvement. Personnel training: enterprises with large numbers of personnel and high levels of staff turnover have big problems. It is necessary to introduce initial personnel training, to include food safety issues in adaptation programs. Explain why food safety is important for staff and their families. It is necessary to make it their personal matter, thought without a good learning system, HACCP will not work.

Figure 3: Scheme of experimentation when applying HACCP principles (ГОСТ Р 51705.1 — 2001)



Involvement of staff: if the staff is not involved, then there is the problem of misunderstanding their role and importance, and this in turn leads to poor record keeping, control, supervision of the CCP, as well as inappropriate execution of corrective actions (Е. Ю. Путилина., 2013.). Implementation of mandatory preliminary measures: initially, if the necessary conditions for the release are not created safe products, i.e. GMP, GHP (sanitary programs) products do not work - unsafe.

2.1.3. The ISO 14000 family

The ISO 14000 family includes most notably the ISO 14001 standard, which represents the core set of standards used by organizations for designing and implementing an effective environmental management system (EMS). it is a set of rules which creates a system by which organizations manage their activities that have an influence or a potential influence on the

environment (https://14000store.com/iso-14000-family-of-standards). ISO 14000 family of standards not only provide environmental benefits but also economic advantages, including:

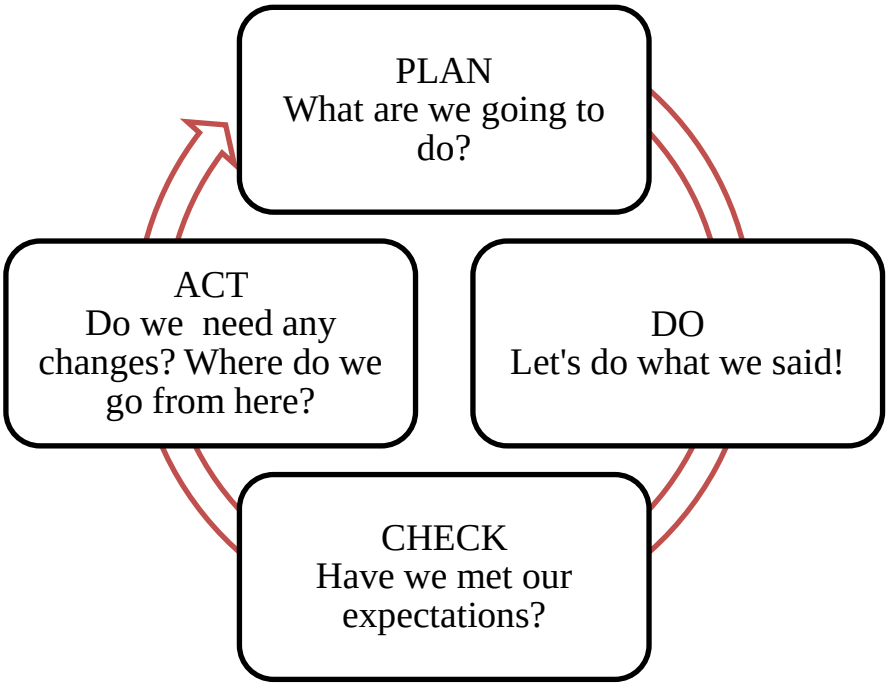
- reduced raw material/resource use;
- educed energy consumption;
- improved process efficiency;
- reduced waste generation and disposal costs;
- utilization of recoverable resources.

The basic principles of ISO 14001 are based on the well-known Plan-Do-Check-Act (PDCA) cycle:

- Plan – Establish objectives and processes required;
- Do – Implement the processes;
- Check – Measure and monitor the processes and report results;
- Act – Take action to improve performance of EMS based on results.

The result of implementing an Environmental Management Plan will be better environmental performance and increased awareness of the importance of the environment.

Figure 4: PDCA (Plan- Do – Check - Act) Cycle (https://en.wikipedia.org/wiki/PDCA)



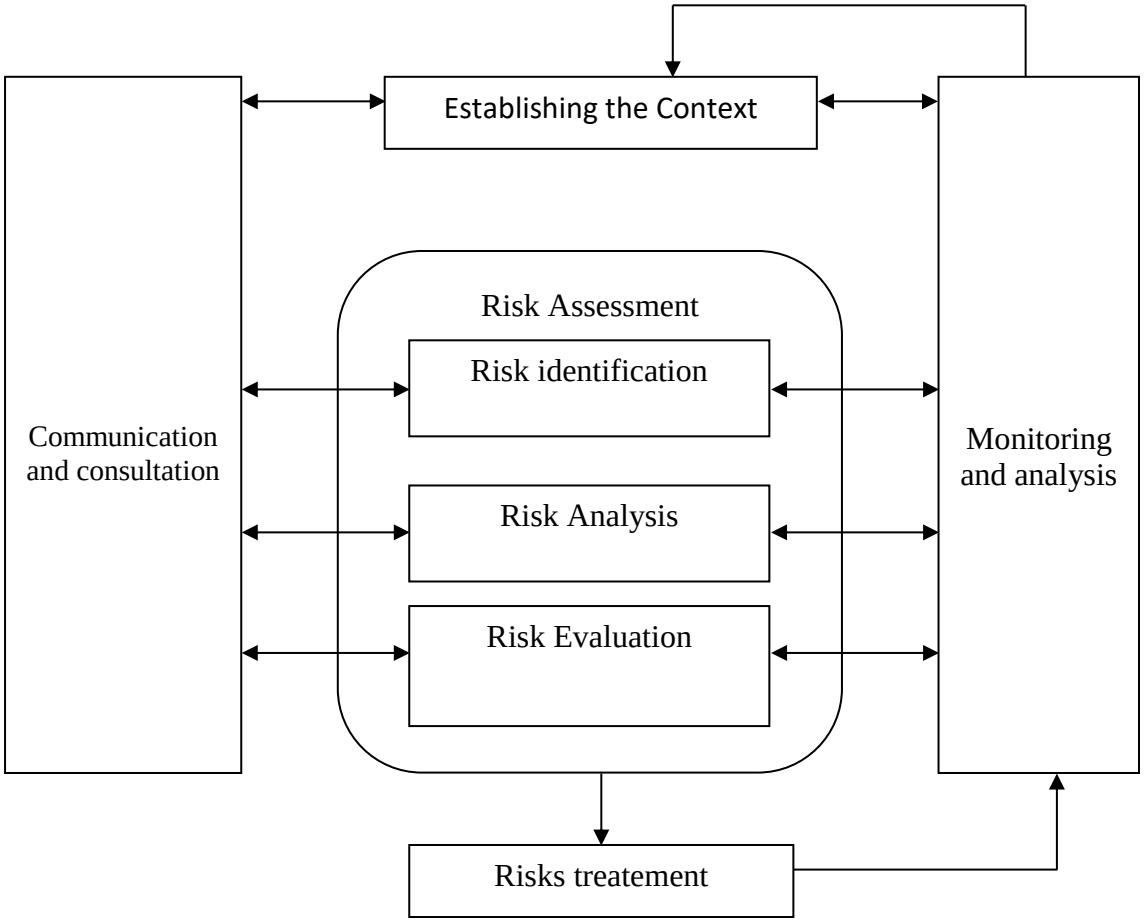
ISO 14001 encourages a company to continually improve its environmental performance. Overall, the CI concept expects the organization to gradually move away from merely operational environmental measures towards a more strategic approach on how to deal with environmental challenges.

2.1.4. ISO 31000:2018, Risk management

ISO 31000:2018, Risk management – Guidelines, provides principles, framework and a process for managing risk. ISO 31000: 2009 "Risk Management. The Guidelines and Guidance standard reflects the principles and comprehensive requirements for managing potential and existing risks in any area of human activity (İSO 31000:2009 "RİSK MANAGEMENT – PRİNCİPLES

AND GUİDELİNES".). This standard was developed by the ISO Technical Management Board Working Group. It can be used by any organization regardless of its size, activity or sector (https://www.iso.org/iso-31000-risk-management.html).

Figure 5: Risk management process, ISO 31000 (ISO 31000:2009.)



Contact and consultation with internal and external stakeholders should take place at all stages of risk management. Therefore, plans for communication and consultation should still be developed at the first stage. When establishing a context, the organization explicitly identifies its objectives, identifies internal and external factors that will be taken into account when managing risks, and chooses the risk areas and criteria for the remaining processes. Using ISO 31000 can help organizations increase the likelihood of achieving objectives, improve the identification of opportunities and threats and effectively allocate and use resources for risk treatment.

3. GMP (GOOD MANUFACTURING PRACTICE)

GMP (Good Manufacturing Practice) – good manufacturing practices, or simply the rules of production. Good manufacturing practices are the practices required in order to conform to the guidelines recommended by agencies that control the authorization and licensing of the manufacture and sale of food and beverages, cosmetics, pharmaceutical products, dietary supplements, and medical devices. These guidelines provide minimum requirements that a manufacturer must meet to assure that their products are consistently high in quality. GMP determines the requirements for the production, storage and transportation of products, the requirements for production facilities, process equipment, personnel, and the sanitary and hygienic regime of production.

4. SAFETY AND QUALITY

Product safety regulations must be provided with "product safety awareness" to ensure thorough product safety. Manufacturers, managers of enterprises and organizations should apply the requirements of the standards if they want to get quality products and also follow the safety rules, so that safety is a fundamental value of products (https://www.lg.com/global/sustainability/customer/product-quality-and-safety). Some areas like food production, medical supplies have a more direct impact on people's health and the environment. The standards have high safety and quality requirements for these areas, as well as in all other areas. There are many definitions in various food safety regulations. Here are some of them:

- food safety - a state of reasonable confidence that food products under normal conditions of their use are not harmful and do not represent a danger to the health of present and future generations.
- safety of food raw materials and food products - a set of properties of food raw materials and food products, in which they are not harmful and do not represent a danger to the life and health of current and future generations under normal conditions of their use.

5. CONCLUSION

Usually, well-functioning security systems bring such benefits to the company:

- effectiveness / efficiency;
- employee satisfaction;
- increase staff competence;
- the best, rational control of activities, processes;
- standardization of processes;
- definition of stages which are subject to the main control (CCP);
- harmonization of relations between departments;
- support the quality of products (services).

Quality and safety, especially in food production, should be the main goal for all members in this sector - suppliers of raw materials and ingredients, manufacturers, organizations of transportation, storage and food vendors. And the application of proven over many years, improved standards guaranteeing high results will be beneficial for both producers and consumers, the environment and for the whole world.

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13. https://en.wikipedia.org/wiki/PDCA

WHAT EMPLOYABILITY QUALITIES DO COMMERCIAL BANK MANAGERS EXPECT FROM GRADUATES IN AZERBAIJAN?

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ABSTRACT

The purpose of this research was find out what employability qualities commercial bank managers expect from graduates in Azerbaijan. The reviewed literature was segmented into the themes such as the definition of employability; the expectations of employers and developed models of employability. A few practical models were studied, including CareerEDGE (Dacre Pool and Sewell, 2007). The CareerEDGE model was used as an instrument to define bank managers' expectations. A qualitative research method with semi-structured interviews was adapted to question 25 managers from 12 commercial banks and the Financial Market Supervisory Body of Azerbaijan. The respondents considered the model important and well-designed, and suitable for use by all stakeholders: educators, employers, parents and students. The managers discussed the elements of the model in succession, described their expectations, gave valuable suggestions and shared their experiences. Importantly, not only graduates' work experience and academic knowledge were valued by the managers, but also their generic skills that could be obtained through the learning experience. The research was not able to involve more managers from commercial banks, including managers from their regional branches, due to limited time and resources. A beneficial output of this research is that it has been suggested as a way to introduce the model to students and other stakeholders. As the topic is pertinent to the society there are many routes to explore in this field.

Keywords*: Azerbaijan, bank managers, employability qualities, graduates*

1. INTRODUCTION

The author's concern regarding students who applied for the internship program at the Central Bank of Azerbaijan led to the desire to study the roots of the problems which graduates face and explore ways to assist those young people. Employers, educators, parents and students are concerned with the case and the questions it raised (Huseynova, 2015): Why do universities and enterprises not collaborate to smooth graduates' paths from Higher Education Institutes (HEIs) to the labour market? Why do students and their parents not consider the potential graduates' employability qualities seriously? Why do professionals not develop, for example, a model for universities, enterprises, students and parents to help them with the problem? The core of the anxiety was the lack of employability skills including career skills, academic knowledge, soft skills, experiences, general knowledge, emotional intelligence and positive attitudes. All of these qualities help newcomers to perform well, not only to get a job (Dacre Pool et al., 2014; Huseynova, 2015; Schultz, 1963, cited in Rasul et al., 2012). Both the concept of employability quality, which is based on Human capital theory (Schultz, 1963, cited in Rasul et al., 2012), and the concept of connecting universities and enterprises to improve the preparation of youth for the labour market are not new. Employment support for graduates, for example, dates back to the University of Cincinnati Cooperative Education Programme in 1906 (Thiel and Hartley, 1997). In Azerbaijan the policy for developing employability qualities and helping graduates to move smoothly into the labour market requires serious changes (Isaxanli, 2008). Indeed, most graduates in the country are not able to move smoothly from universities to businesses, especially to the banking sector. Unfortunately, Azerbaijan's banking sector has faced serious, unfavorable processes which increased the rate of unemployment in the country.

In February 2016, according to the decision of the President of the Republic of Azerbaijan, a Financial Market Supervisory Body (FMSA) was established (APA, 2016). The organization immediately started to conduct a series of reforms which promised an enhancement of the banking system in Azerbaijan. One of the results of these reforms was a reduction in the number of commercial banks from 45 to 32 (Global banking finance review, 2017; Banker.az, 2017). This reform has created dramatic competition among those whose career goals related to the banking system. The conditions for graduates now compared to those with several years' experience in the banking system have become more dramatic. Clearly, the situation is less than predictable for graduates. Only commercial bank managers can provide expected answers through accurate research. It will open routs to graduates and potential graduates in becoming newcomers in the banking sector of Azerbaijan. The purpose of this research is to find out what employability qualities commercial bank managers expect from graduates in Azerbaijan.

2. WHAT IS EMPLOYABILITY?

There are different definitions of employability. For Dacre Pool and Sewell (2007), people are committed and effective in their jobs when they have appropriate skills, knowledge, experience and personal characteristics. All of these dimensions provide them with security in their chosen role. Yorke and Knight (2004), however, argue that employability is more than a combination of 'core' skills. Employability is developed through different means. Its components vary from good academic knowledge to desirable communication skills. Some features mould employability, including intelligence and experience. Cox and King (2006) distinguish between the significance of employability for students, for universities and for employers. The goal of students who attend degree courses is to build capacity for employment. It is their main focus after so much investment in their education. Growing expenditures on studying disturbs students and parents a lot (Gault et al., 2010). They want to have a guaranteed employment after graduation. High graduate employment levels provide universities with a high employment rate which increases its reputation among potential students (Cox and King, 2006) and their sponsors. Employability differs from employment as much as education varies from training. Employability describes how a graduate matches their employment (Knight and Yorke, 2003; Cox and King, 2006). Additionally, Hawkins (1999, in Cox and King, 2006) agrees that it is not being employed, but being employable which eliminates the risk of unemployment. Lim (2015) concurs that employability is shaped by students' own experiences. HEIs can provide students with basic skills but being able to manage challenges in their employment depends on the students' capacities. Moreland (2006), however, offers a more comprehensive definition of employability: people's knowledge, skills and personal characteristics build their employability, which makes them feel safe and effective in their chosen profession. Enjoying their role, they contribute to every stakeholder's wellbeing. Employability was not a concern pre-1990s, as HEIs in England and post-Soviet Union countries had an established tradition of developing professional and vocational skills in students. The era was characterised by fewer universities and limited admission to HEIs (Rae, 2007; Knight and Yorke, 2003; Isaxanli, 2008; Jonbekova, 2015; Guliyev, 2016; DeYoung, 2011, cited in Jonbekova, 2015). However, Tomlinson's (2008) qualitative research among 53 fourth year students in the early 1992 university depicted that although technical or degree knowledge was essential for final-year undergraduates' employment, they had concerns to obtain more values to be competitive for employment. HEIs have given vital attention to individuals' employability since the late 1990s (Rothwell et al., 2009). There were many arguments about including development employability skills into HEIs' curricula and most of HEIs showed a serious attitude to employability development during academic years (Tymon, 2013). According to HESA (2016) in UK, 93.3 present of 2012/2013 academic year graduates were employed or continued their education within three years and a half after their graduation.

Despite the increase in employment rates, employers still continue to express their disappointment about employability qualities of graduates (Tymon, 2013).

2.1. Expectations of employers

It is observed that the best period to invest in employability development is 'emerging adulthood'. This period starts in the late teens to twenties, with a focus on ages 18-25. This period is unique in terms of its changes and exploration. The youth appreciate the opportunities that life offers, progressively making long-term decisions about their career and love, trying to understand philosophy of life. Not all youth are open to the opportunities that come during emerging adulthood. Reasons vary from personal to environmental (Arnett, 2000). According to Human capital theory, future opportunities for individuals and communities originate from investment in people (Sweetland, 1996). Schultz (1981) argues that neither natural resources, including land, or other physical investment can be as essential to modernisation and development as the skills and knowledge in human resources (human capital). Managers who are interested in developing graduates' skills attempt to meet students before they leave university. They invite students to see how employers appreciate their education. For example, James Morrish, a Publicity and Promotions Officer, was happy to spend his time guiding graduates in developing public speaking skills, communication and leadership skills (Raybould and Sheedy, 2005: 261). Moreover, universities should think about development of employability skills when students start as freshmen. For that, employers should be involved to course programmes' design as their engagement contributes to communication between educators and employers. For example, by including an 'Employer Engagement module' in a 'Computer Sciences module', different aspects of employability such as communication, time management, and teamwork were developed in first year students.

The results of this change became apparent as when in the students' second year. They had acquired key skills and improved academic achievement. The process also increased student engagement. In addition, stakeholders profited from this process because students received opportunities to develop their employability skills while in education; educators nurtured communications with employers to enable future cooperation; and employers had the chance to create a future employee pool and recruit the required talent (Hanna et al., 2015: 297-300). The case study of Lithuania concludes that the labour market no longer receives the desired professional competence it expects, which proves the existence of a gap between educational systems and the labour market. Graduates frequently arrive at a particular workplace lacking necessary skills and personal qualities. Employers prefer the labour force not only to arrive with required skills but also with flexibility and good learning abilities (Braziene and Dorelaitiene, 2012). Cox and King (2006) agree that it is employers who evaluate graduate skill sets. Therefore, their contribution to course design, which aims to develop student employability, would be comprehensive. The skills which employers expect from graduates guarantee long-term employability because they are conceptual skills. Such skills are not task-related and so are not considered short-term employment skills. Raybould and Sheedy (2005: 259-260) agree that employers expect students to develop more soft skills during their education and work experiences in comparison to academic knowledge. During the recruitment process, employers appreciate the following skills: Stress management; communication; negotiation skills; team-management skills; IT skills; openness to innovation and learning, self-confidence. Additionally, they want graduates with emotional intelligence. Gallopeni (2013) notes that there is a gap between the employability skills that employers expect and those provided by universities. Additionally, he highlights the importance of personal qualifications for successfully moving from education into employment.

According to the Statistical Office of Kosova (2009), the country faces serious unemployment problem. Data gathered from employers and employees suggests the reason for this is graduates' low preparation. Furthermore, employers evaluate universities' role in improving employability skills incorrectly. In addition, skills needed to perform tasks were not designated as employability skills. It is apparent that personal networks and family contacts are an important aspect of gaining employment in Kosova. This reflects the previous argument about the importance of personal qualifications in the move from education to employment. Rasul et al. (2012) questioned what employability qualities, which manufacturing industry employers anticipate from graduates and defined that respondents appreciate not also technical skills but also personality qualities. They prefer graduates who are able to solve problems themselves instead of asking for assistance from others; are able to obtain information from different sources and analyse it adequately; share knowledge and ideas with others; support and understand team members in the workplace; have good technology skills; give ideas and save resources; lead and motivate team members and are honest with high self-esteem. Manufacturing employers believe that these characteristics create a positive work environment, increase productivity and satisfy customers. Cassidy (2006) agrees that students should learn not only technical skills such as subject specific knowledge, but also non-technical skills such as basic employability skills, during their university years. It is mentioned that obtaining non-technical skills is as important as gaining degree subject knowledge for employers. Jonbekova (2015) describes precisely the reasons for graduate skills mismatches in post- Soviet Tajikistan. The findings show that not only are there problems in the education system, but also reduced employment opportunities, unclear recruitment processes and poor economic situation create skills mismatches. The research also depicts that there are many more graduates who have diplomas without knowledge and understanding of their subject than those who hold a diploma and adequate knowledge. A growing number of HEIs and students are promised neither knowledge and skills nor employment opportunities. This echoes the 'diploma disease' in most post-Soviet countries (Dore, 1980:3). DeYoung`s (2011, cited in Jonbekova, 2015) findings about Kyrgyzstan graduate problems are very similar to those for Tajik graduates. Unqualified teachers, corruption in HEIs, and inadequate employment opportunities destroy student employability. Jonbekova (2015) agrees that universities do not completely prepare students for employment, but research respondents agreed that students must have good subject knowledge and the ability to learn while working. Although a lot has been done to nurture employability in HEIs, there is still room for empirical investigation and development (Rae, 2007; Braziene and Dorelaitiene, 2012).

3. A MODEL OF EMPLOYABILITY

The CareerEDGE model of graduate employability (Dacre Pool and Sewell, 2007: 280) is considered the most comprehensive among the employability models studied. Dacre Pool et al. (2014) mention that foundations of this model are the USEM model (Yorke and Knight, 2004) and the 'magic bullet' model (Harvey, 2001: 102). Importantly, the authors include 'emotional intelligence in important components such as career development learning, work experience, academic knowledge and understanding and generic skills'. They described the role of reflection, self-confidence and self-esteem on the way of employment. The model challenges graduates to enhance their employability through reflection and evaluation on their own learning. Continuous learning and/or improvement occur when people have self-efficacy, self-confidence and self-esteem. The completeness and attractiveness of the model comes from the harmony among the elements. This orchestration allows users to accept each element of the model seriously. If one element is missed the employer may not love the music produced.

4. PURPOSE/OBJECTIVES OF THE STUDY

The purposes of the study are:

1. To explore bank managers` perceptions of the importance of graduate employability skills for effective performance;
2. To explore bank managers' attitudes to the establishment of communication channels between commercial banks and universities in order to develop a labour pool with the expected skills;
3. To provide a rationale for developing students' employability skills through collaboration between University Careers Centers (UCC) and commercial banks' HR departments.

5. METHODOLOGY

Qualitative research using interviews were carried out. The respondents consisted of twenty-five managers. Twenty-three managers were from twelve commercial banks and two managers were from the Financial Markets Supervision Authority of the Republic of Azerbaijan, which is responsible for the activities of commercial banks and other financial institutions. Twenty-four interviews were conducted and twenty-three were recorded. Only two managers from the same bank preferred to be interviewed together and they did not want their interview to be recorded. The average work experience of the managers was around 12 years, and managerial experience around 7 years. 8 of the managers represented top management, 12 belonged to middle management and 5 were line managers. The average interview time was 31 minutes. Although the research tested the theory of the CareerEDGE (Dacre Pool and Sewell, 2007: 280) model, the researcher managed to compare the model with empirical knowledge obtained through the interviews. Interviewees were asked to describe the essence of each component in forming graduates' employability qualities. Additionally, they answered the following question: "Would you like another component in this model, for example, a positive attitude to work?"

6. SAMPLE DEMOGRAPHICS

The average age of the respondents was 33 years. All of the top managers were males, and 3 middle managers and one line manager were females.

7. FINDINGS

When the question was understood the interviewee gave his/her opinions about each component step-by-step. Most started with the one they found most significant. A few respondents talked briefly about some of the components in order to have more room for those they considered more essential. The respondents' answers will be presented in the same sequence as the CareerEDGE model.

7.1. Importance of career development learning

Generally, respondents considered this element to be very important. They found it is a starting point upon which everything else depends. In their answers they mentioned that parents and school career centers can help teenagers to define their potential, talent and interests: To define children's abilities and potential early should be the responsibility of parents and the school (Director of Finance Department, 2018). Career Centers do not just have to try to connect universities with businesses and ask for employment opportunities. They have to develop the required skills and direct the students correctly. It would be better if careers professionals invite famous people to share their experiences with students to help them understand what their career path was (Director of Risk Department and Chairman of Audit Committee, 2018).

Interestingly, managers not only described the kind of graduates they expect, but also described the CVs they would like to receive: Today writing a CV can be a routine task but there are nuances Career Center staff should teach students. For example, I cannot accept a 'glamorous CV' for a position in the Finance department. A finance student's CV should be modest (Head of Investment Banking, 2018). I appreciate when candidates have a clear vision about their careers. For example, I may ask: Which field do you want to work in? They say: in finance. In order to clarify, I ask a second question: Where in finance? If I get an answer 'in finance' again I question this attitude (Deputy-Director of Risk Department, 2018).

Students' attitudes to their own career development were also reflected upon: I do not like when graduates start blaming others like school or university for their failures. They do not have to expect everything from university or from other units. It is the main responsibility of an individual to care about his/her career development and look for the right direction (Chairman of Audit Committee and Head of Investment Banking, 2018).

Remarkably, while discussing the factors which contribute to graduate success and depend on their approach to career development, one of the interviewees declared: I do not think a good career beginning always depends on graduate employability qualities. Sometimes we observe that lack of transparency in the hiring process is the reason for a graduate's failure (Director of Risk Department, 2018).

Most of the interviewees observed that immediately after university graduates focus on finding a job to earn a living. Their priority becomes the promised salary: I observed a brilliant girl in the HR department studying hard to pass a CFA level 1[1] exam. She was successful after the first attempt. I asked her why she had not tried to improve her professionalism in the field of HR Management. She replied that she came to the HR department because she did not have a choice and she was in financial difficulties (Director of Law Department, Head of Learning Division and Director of Risk Department, 2018).

Graduates who have internationally recognized certificates create a good impression on managers, as they consider those individuals to be goal-oriented: If I see a candidate with 650 GMAT score I do not ask any questions. That result says many things about their goal-orientation and bright vision (Board member, 2018).

Commercial bank managers do not want to have vacant positions on a regular basis. It takes time and money to find someone suitable for each position. Consequently, managers appreciate when they feel a candidate has clear vision about his or her career. They want their clerk, or front office operator to be ambitious: Usually, I ask job candidates about the activity of our department. If they do not have information and knowledge I stop interviewing. It means they are here because they just saw a vacancy announcement (Head of Reporting, 2018). Having a vision about their future career makes an individual's career path smooth. For example, one of the Board members of our bank started his career as a courier in this bank (Director of HR Department, 2018). Each manager prefers to have a person who knows where they come, what they expect from this company and what they can contribute to the organisation. Attitude toward career development should be measured seriously (Marketing and Product Manager, 2018).

Therefore, a graduate with a career plan based on his/her talents and ambitions is described as a valuable asset of the company.

1 Chartered Financial Analyst

7.2. Importance of work and life experience

Surprisingly, the approach of managers to work and life experience was not similar. Generally, managers choose people with experience and there are few job announced which do not require experience. Most of the managers expressed their desire to employ interns and shape them within their own corporate culture. I wish I could have met a candidate with relevant experience; however it is almost impossible in our case… That is why I ask them to start as an intern… people with experience do not accept that offer… it seems it is hard for them to adapt to a new corporate culture (Director of Risk Department, 2018). It is not important for me. We work with newcomers… we support them to gain the required experience here (Director of Finance Department, 2018). Work experience is desirable but not important. Who cares about irrelevant experiences? For me people some years at work without appropriate knowledge are worse than people without work experience. It is a risk to hire those kinds of people (Deputy-Director of Risk Department, 2018).

Interestingly, two managers declared that they would never hire people who have work experience in other commercial banks: Corporate cultures are dramatically different in Azerbaijan commercial banks. Recently, we have seen how many banks were closed. I do not want somebody to be here with non-transparent banking experience (Deputy-Director of branch and Chair of Audit Committee, 2018).

Another reason why managers do not request work experience is the continuously changing work environment: The business world is very dynamic. A candidate's experience gained 5 years ago is not valuable to us today (Board member, 2018). Of course it is desirable to have interns, to develop and shape them. Moreover, to hire fresh graduates is efficient. We have to create the conditions for them (Chairman of Audit Committee, 2018).

A General Director (2018) noted that he had to involve the team in decision making. It is often impossible to decide alone: That is a reason I need interns to start in our organisation and grow up here. Those people contribute a lot (General Director, 2018). Generally, I do not think it is correct to expect a graduate to arrive at a workplace with experience (Head of Investment Banking, 2018).

In contrast, a few managers – depending on their role – stated the significance of work and life experience: Jobs specific to the treasury department and the functions in the department are the same in all commercial banks. Consequently, we appreciate a candidate with at least internship experience in the department in question. This is because it takes us a minimum of five months to teach the basic skills to newcomers (Director of Treasury Department, 2018).

Significantly, five of the interviewed commercial bank managers started their careers as interns at the Central Bank and they expressed how lucky they were to have that opportunity: 70 percent of basic organisational skills I use in my work today I learned during my internship in the CBAR (Head of L&D Division, 2018). I appreciate internship experience in graduates. When I was an intern I learned what corporate culture and discipline were. This helped me to adapt easily to my workplace. Students who attend Work and Travel (Work and Travel, 2018) usually come back with valuable life and work experience (Head of Treasury Division, 2018).

Additionally, managers described how much volunteering experience in the organisational teams of international events such as the Eurovision Song Contest 2012 (eurovisionworld.com, 2018), Baku 2015 First European Games (Baku 2015 First European Games, 2018), and 4th Islamic Solidarity Games (Baku 2017, 2018) played a great role in their life and contributed to

their employability. However, one manager considered such activities impractical: Some students confuse social work with work experience. Spending much time on social work they sacrifice their professional development (Director of Risk Department, 2018).

The Director of the Law Department (2018) depicted the advantages and disadvantages of hiring inexperienced people: To work with interns and develop them takes a lot effort and time. But they are like a clean piece of paper. You can write on it anything you want. Additionally, experienced people can bring values that you do not need. Even their values can create problems for you.

Another Director of the Law Department (2018) considered graduates with experience as valuable, but he mentioned that an individual's experience by itself is not enough. However, it is powerful when coupled with academic knowledge, which together with work experience nourishes creativity. Significantly, Azerbaijani commercial bank managers consider it a social responsibility to involve new graduates in creating the conditions for their development. It was exciting to find that the HR manager (2018), with 16 years' experience in the same leading commercial bank, noted that as of these years she has hired 7,000 employees of which 3,000 were directly from universities.

7.3. Importance of degree subject knowledge, understanding and skills

All of the managers claimed that they want to have graduates with advanced degree knowledge in addition to other knowledge and skills such as Microsoft Office programs, especially Excel, good writing abilities, and even blind typing skills: We need good MS Excel program knowledge… among 50 candidates, we found only two who learned and improved their Excel knowledge and skills themselves. We appreciated their knowledge and enthusiasm. Both are extremely important in our work (Head of Treasury Division, 2018).

However, the knowledge graduates gain in university is not quite sufficient in the workplace. Managers suggested courses such as 'Consumer Psychology' for business school students: Employees, who must manage difficulties with problematic customers, really need psychological knowledge (Deputy-Director of branch, 2018). What students get at university is not enough for today's dynamic business world. The importance of having international certificates such as CFA and FRM[2] was emphasised in this part of the interviews several times. Until 2015 there were only 5 certified Financial Risk Managers in Azerbaijan, but today they are 16 (Global Association of Risk Professionals, 2018). To have students among those certified people shows growing interest in professional knowledge (Director of Risk Management Department, 2018).

The clear demand of certified graduates was also mentioned by Information Technology Department manager (2018). He noted that there are many cases of school leavers entering university with a high score according to the demands of university but they do not gain the necessary knowledge that today's business world demands. They just learn something to pass exams poorly. Their focus is not on gaining knowledge but just getting a diploma (Head of Treasury Division, 2018).

Managers compared graduates from local universities with graduates from Western and American universities. Although some managers found international graduates too ambitious and confident, most of them preferred graduates with foreign degree diplomas. Nevertheless, there were managers who emphasised that the quality of knowledge depends on the graduates'

[2] Financial Risk Manager

attitude toward study: Right now I work with 9 Azeri interns with diplomas from 5 different countries and universities. Their educational background is colorful. I enjoy working with them. During this time, I understand that the countries and range of universities do not contribute if a person does not have a serious attitude toward studying and working. Seven of them will be selected in regards to their attitude to learning and working (Advisor to the Chairman, 2018). Good academic knowledge is enormously important in our work. It is like a good seed for me. When I get it I consider it a responsibility to plant it in fruitful soil and grow it in a sunny area (Director of Law Department, 2018).

According to their expectations, managers demand knowledge from different disciplines to work in some fields within the banking system: employees who work in the International Relations department, Communication and Marketing department and Centralised Credit Registry must have knowledge of the fields of banking and economics in addition to their majors in subjects such as international relations, marketing and information technology respectively. Moreover, research participants suggested universities involve the leading commercial banks in curriculum design. They may advise the courses which are important for the banking sector but are not yet taught at universities.

7.4. Importance of generic skills

It seemed that managers looked for opportunities to talk about the generic skills which they expect from graduates. They spent the greatest portion of their thirty minutes on this component. They talked very enthusiastically. One could believe that it is purely generic skills which drive graduates through their career paths. The managers' expectations were very colorful. Additionally, they appreciated a new trend among graduates: there is a serious focus on self-development: A graduate with good communication skills is very valuable. That person becomes a good organiser and manager in the future. I also prefer graduates with their own opinion. I want them to be innovative. I do not like those who immediately agree what their managers say (Director of IT Department, 2018).

Managers also valued honesty, persistence and the ability to manage stress. They also described that it is generic skills which predict how successful graduates will be in their careers: Graduates may open an employer's door with their theoretical knowledge but personal and generic skills define their growth… the banking sector is risk management. We consider the future dreaming about happiness. We can transform all inputs into desirable outputs through analytical skills, hard work and honesty (Chairman of Audit Committee, 2018).

When expressing their thoughts about general skills, surprisingly, managers mentioned that appearance and conversation style is important to them. They even called them their minimum demands: I prefer good-looking people. I like when people have a good conversation style. If I find them I will help those candidates to improve other employability skills (Director of Law Department, 2018).

Furthermore, managers expect newcomers to become the owner of their work, take possession and sacrifice something for the sake of work. They expect newly hired people to learn eagerly, come to work early and leave work late: We want a newcomer to continuously ask for something to do. We appreciate when they take responsibility for doing something, creating a product with love. If they do a task just because they have to, then the highest position for them will only ever be a senior specialist. I do not understand when they wait for the end of work (Head of Investment Banking and Board member, 2018).

Working with interns helps managers to define their generic skills. One commercial bank manager depicted how he tested the interns' teamwork and other skills: I usually give one of them a difficult task and ask them to finish it to a deadline. It is impossible for one person to do it within the defined period. I appreciate when I see them divide the task among team members and work together… Tolerance of diversity is important. Recently, I offered to have lunch with the interns and intentionally started talk about religion. It was a good chance to observe them. One girl was so excited that she started interrupt her fellows with no care over others' thoughts and feelings (Advisor to the Chairman, 2018).

Managers also emphasised the importance of research orientation at entry level: We appreciate people who think outside the box. For example, I usually ask what financial sites they know. They can say: 'Bloomberg.' Then I ask about the articles they have read recently. It may be something about oil prices or transactions. When we find a graduate who is research-oriented and self-motivated we appreciate it (Head of Treasury Division, 2018).

Moreover, managers are looking for creative people: I would love to work with creative people: I am glad when I hear somebody from my team paints or carves figures in wood or marble. Those people usually are perfectionists. But I need realistic perfectionists (Head of Law Department, 2018).

The General Director's (2018) contribution was also illustrative: We expect a talent has IT knowledge, i.e. he/she should be able to build an algorithm and a language to enter the global library.

It was pleasant to hear how the managers who attended internship program in the CBAR described the essence of soft skills seminars in improving their generic skills. They also told how they apply that experience in their bank. According to the interviews conducted across all 25 commercial bank managers, they expect to have graduates with the following generic skills or personal attributes: Reasoning skills; Problem solving skills; Analytical skills; Critical judgment; Passion; Self-development skills; Team sprit; Creative thinking skills; Communication skills (oral and written); Ability to work under pressure; Tolerance; Decision making skills; Learning ability; Hard working; Enthusiasm; Focus; Future orientation; Taking possession; Politeness; Ethical behaviour; Knowledge sharing skills; Discipline; Execution; Cooperation; Research orientation; Negotiation skills.

7.5. Importance of emotional intelligence

When depicting the generic skills of employees, managers brought into focus human capabilities, known as emotional intellegence (EI). Considering EI an important factor when evaluating a job candidate is a new trend in Azerbaijan. Nevertheless, during the interviews managers displayed good knowledge and understanding about it. They enthusiastically shared the ideas of Daniel Goleman and thoughts of Dr Travis Bradberry. Remarkably, only a few asked the researcher to remind them of the componenets of EI: 'self-awareness; self-regulation; motivation; empathy and social skills' (Goleman, 2004: 3).

It is clear all of the managers consider these components essential. Some shared the methods they use to define candidates' EI. To do this they use tests and arrange group discussions: Usually we arrange those discussions during the orientation period. We intentionally challenge them. We usually observe that those with some life experience have good self-regulation.
It is pleasure to work with self-confident and motivated people. They like sharing and caring. That is the beginning of good network building (Head of L&D Divison, 2018).

The Head of the Reporting Division (2018) shared an interesting experience regarding empathy: I always ask interns about the books they read. I feel that those who read Les Misérables by Victor Hugo, King Lear by William Shakespeare, Eugene Onegin by Alexander Pushkin, Khamsa by Nizami Ganjavi and other classic world writers are different from others. They are able easily to wear others' shoes. I also ask them how often they go to the theater or opera. These events are very important to shape the youth's personality and emotional intelligence.

Having good knowledge of the components of EI, the managers were aware of the factors that shape emotional intelligence: Undoubtedly, the environment in which an individual grows up plays an essential role in shaping his/her emotional intelligence. That is why I always ask how many children they are in the family. Graduates with more than three siblings, usually, have higher empathy and social skills. Those people are more tolerant and adaptable (Head of Investment Banking, 2018).

The managers of the Finance, Risk and Treasury departments (2018) depicted the challenges and sometimes stressful conditions at work. Such challenges may frighten interns and demotivate them to continue working in these departments. If they are able to motivate themselves, however, they carry on toward their goal. The Chairman of the Audit Committee (2018) claimed that self-confidence is the most important feature in a person. Auditors must be confident about whatever they say, otherwise they will not be taken seriously. Nevertheless, not all of the interviewees agreed that newcomers' emotional intellegence is important when they arrive in the organisation: Emotional intellegence is important for leaders and managers. They shape their followers' EI. I rememember from a psychology course at university that a team is becoming like the leader. So at the beginning of graduate's career, I do not consider EI significant (Head of Law Department, 2018).

During the interviews it was clear that commercial bank managers value EI highly and consider it a vital element in keeping their customers. All of the components of EI contribute enourmously to the quality of service in a knowledge economy. Employee socialising was also considered essential. Their wide network positively influences the number of customers. Moreover, banks face challenges. Thanks to self-motivated employees' teams are able to manage stressful situations. Thus managers expect graduates with good EI because it is not only convenient to work with them but also they contribute to the bank's effectiveness.

7.6. Importance of reflection and evaluation

During interviews it was evident that managers focus on the dynamics of the knowledge economy. There is no chance to stop learning and studying.

7.7. Self-Efficacy/self-confidence/self-esteem

The managers considered last elements of the model; the 3Ss (Dacre Pool and Sewell, 2007: 285) which are essential for attaining and retaining one's employability. They agreed that good results in the low line components of the model create a sufficient base for self-efficacy: When I see that graduates' self-confidence is based on their talent, knowledge and understanding I am pleased. Sometimes graduates are not well equipped and they have a lack of self-awareness.
I am more than upset when I see that graduates' potential does not match with their confidence (Director of Finance Department, 2018).

Overall, the self-esteem component was evaluated as one of the most valuable attributes of a human being: They like to compete with smart and talented people… I have found them to be

innovative. Self-esteem never allows them to give up or stop improving (Deputy-Director of branch, 2018).

Managers were deeply pleased with the statement that, 'self-esteem is not everything; …there is nothing without it' (Gloria Steinem, 1992: 26, cited in Dacre Pool and Sewell, 2007: 287). Commercial Bank Managers characterised people who have self-esteem as modest, hard-working and open to learning opportunities.

7.8. Would you like another component in this model, for example, a positive attitude to work?

Alongside generic skills the managers gave opinions about personality traits. All preferred extrovert people. Most interviewees want to see positive people around them: I never hire a person who has a negative aura (Chairman of Audit Committee, 2018). On the other hand, two managers claimed they are not concerned if a person is positive or negative, until he/she creates a problem. Another Chairman of the Audit Committee (2018) said that in the field of audit and risk management they need people who see negatives first. It is illustrated professionally and one can remember it easily… I would offer to add a sixth component to the lower line: positive attitude (Head of L&D Division, 2018). The managers' contribution to this question indicates that having positive people around means a good learning environment where people have a solid team spirit. These people have intrinsic motivation. Instead of complaining they try to find reasonable solutions. Their positive energy improves productivity and increases the effectiveness and efficiency of their work.

8. CONCLUSION

The managers' responses and suggestions regarding the components of the CareerEDGE model described the employability qualities commercial bank managers expect from graduates: they want to have human resources which perform effectively and efficiently. The managers anticipate their potential employees are equipped with a clear understanding about their careers, have work experience at least as volunteers and/or interns, understand what a corporation and work environment are, and have good problem solving, analytical, communication, teamwork and other important generic skills necessary for the work process. In a knowledge-based economy, increasing interaction between customers and specialists in the service fields, including in the banking sector and stressful lives demand that employees have high Emotional Intelligence. The manager's thoughts indicate that competent graduates – human resources – are an essential input in a company's operations. The more qualified the input, the more effective the company's performance. Additionally, managers appreciate interns and/or newcomers' ability who take the opportunity to reflect on and evaluate what they have learned. Doing this, they never miss chances to improve. All development processes create self-efficacy, the virtue of how one believes his/her knowledge, skills and self-confidence are presented in one's abilities. Moving successfully toward employability graduates thus develops 'a major part of the key of employability' (Dacre Pool and Sewell, 2007: 287). Expectations of graduates are high. Fortunately, if students have the desire and an open mind they can use opportunities to succeed in an intensive business environment. Employers not only expressed the kind of graduates they expect but also suggested ways for developing the necessary qualities. According to them HR departments and UCCs should work together to help all those who are interested in developing the employability qualities of young people. They arrange internship programs but it is expected they will do more. HR staff can arrange soft skills seminars at universities arrange student visits to companies, initiate research and much more. Through these internship programs the banks contribute significantly to developing the required employability

qualities in young people. The program also forms a valuable talent pool for the corporation which can be accessed easily.

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DEVELOPMENT OF THE SOUTH BOHEMIAN REGION AS VIEWED BY ITS INHABITANTS

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ABSTRACT

The article presents the subjective opinion of the inhabitants of the South Bohemian Region on the development of their region, as well as the satisfaction of the municipalities of the South Bohemian Region with their place of residence and with the municipal life. The outputs are based on the questionnaire survey which was implemented on a representative sample of 700 inhabitants of municipalities of different size and character in the South Bohemian Region. The data were statistically processed in the SPSS program in relation to the size of the municipality and to other selected sociodemographic characteristics of the respondents through the chi-square test and t-test analysis at a 95% level of significance. The following outputs were found. The tested sociodemographic variables had no significant relation with the satisfaction with the life in any given municipality: gender (p=0.520), education (p=0.509), and socioeconomic status (p=0.340). 44.8 % respondents assess the situation in their municipality as an average situation; only 19.2 % state that the situation is good. 20.8 % respondents plan to move house; 13.5 % in the course of the current year. The respondents most frequently plan to settle in their current district. 51.2 % respondents believe that their municipality develops; 47.5 % see the differences between municipalities of the Czech Republic as significant. 38.9 % believe that the people in their municipality live like people in other Czech municipalities; 26.3 % believe that they live better, which is related to their answer to the next question - the respondents most frequently state that their municipality has developed equally well or better in recent ten years, as compared to other similar municipalities. Nevertheless, the prospects are more conservative; about one half of the respondents believe that the municipality development will stop and stagnate.

Keywords: *regional development, municipality life, quality of life, moving house*

1. INTRODUCTION

1.1. Regional Development

Regional development is a concept closely connected to social-economic policies in regions. It plays the main role in many aspects of regional policies, such as economic geography, regional economics, regional science, and the economic growth theory (Nijkamp and Abreu, 2006). Regional development is not only a domain of regional self-government, but it is also a domain of government, mainly a domain of the Ministry of Regional Development, which was introduced on November 1, 1996. The Ministry of Regional Development is a central governmental authority and deals with the matters of regional policy, housing policy, development of dwelling and housing, letting of flats and non-residential premises, spatial planning, building rules, expropriation, investment policy, tourism, and undertaking (Ministry, 2018). The main task of the state and its government regarding regional policies, including regional development, is to establish fundamental legislative, intuitional and conceptual framework for regional policies, as well as to reduce the most crucial regional disparities that exceed the rights of regional self-governments (Postránecký, 2010). Since regional policies are problematic - their increasing importance due to the context of globalization and the growing importance of decision-making on both local and national levels - regional development is gaining more attention from regional administrative institutions, but also from the media and

the public. These facts are even more significant for regional development in border regions that were often marginalized in the past (Husák, 2010).

1.2. Strategy of regional development in the Czech Republic

The main document dealing with fundamental strategies of regional development is The Strategy of Regional Development, which was published by The Ministry of Regional Development for the period of 2014-2020. It defines overall objectives, issues, and priorities that will need to be introduced as a part of the regional development policies in the Czech Republic, and which combines the European and the national regional policies of the Czech Republic. The document also features subsequent sections that address individual two-years segments called "Action Plans". The essential points of this strategy are regional competitiveness, territorial cohesion, environmental sustainability, public administration, and public cooperation. These documents have been approved by the Chamber of Deputies in 2013 (Strategie regionálního rozvoje, 2013).

1.3. Strategy of regional development in the South Bohemian Region

Additionally, each region in the Czech Republic publishes strategic documents on its self-government level for the same time periods (four years), which are approved by the deputies of the region. The main objective of the document named "Development Program of the South Bohemian region 2014-2020" is to define strategic development visions and an overall objective for the South Bohemian Region for the period of 2014-2020. The document also includes the delimitation plans for economically weaker areas of the South Bohemian Region. (Program rozvoje Jihočeského kraje 2014-2020, 2014)

1.4. Quality of life

Quality of life is a term, which can be described as the product of the interaction of many psychological factors related to health, society, environment, economics and politics. The quality of life always remains the subjective experience of a person's life. (Cheradi and Chibane, 2014). Measuring all components of the quality of life and obtaining an overall rating of QoL is a complex task. Most researchers therefore measure each domain of QoL separately, by asking questions related to the most important aspects of each domain (Feinstein, 1987). QoL is often used as a comparison of standard of living and satisfaction between people living in different areas. There is a lot of research that compares QoL, both on the domestic and international levels.

1.4.1. Quality of life in the Czech Republic

According to the research Social Progress Index 2018, conducted by the non-profit organization Social Progress Imperative together with Deloitte, the Czech Republic placed 26th on the QoL scale. The Czech Republic dropped four places in one year, not by worsening its QoL score, but by not improving as much as other countries (Social Progress Index 2018, 2018).

1.4.2. Quality of life in the South Bohemian Region

For the purposes of comparing the QoL of the different regions in the Czech Republic, a new study called "Místo pro život" (Place for living) was recently published. This research evaluates Czech regions based on 54 criteria of the 8 separate categories of QoL. The South Bohemian Region placed 7th out of 14 regions. This research also states that the people in the South Bohemian Region are satisfied with the air quality and almost all aspects of environmental politics. Outstanding ranking was also given in the safety category, which also includes traffic accidents and police services.

The worst rating that the South Bohemian Region received was in the category of development of infrastructure, education, healthcare, and culture.(Jihočeský kraj, 2018)

1.5. Migration within the Czech Republic

QoL is also one of the main reasons, why people migrate within the Czech Republic. Usually, young people move from rural areas to cities due to economic reasons. The opposite movement from to cities to rural areas is popular among the older part of population (Vošta, 2010). Reasoning for this movement often differs, but main reasons are often connected to poor housing affordability in cities, family reasons, and economic reasons (Bernard, 2006). This - and the fact that the population is ageing - causes problems in rural areas, since the economically active habitants move from rural areas to cities and leave people in retirement age in rural areas (Burcin, Drbohlav, Kučera, 2008).

2. METHODOLOGY

This research was carried out using quantitative research strategy, questioning methods and the technique of a unique questionnaire containing closed and semi-closed questions. The research group consists of the inhabitants of the South Bohemian Region older than 15 years of age. In 2016, the total population of the region was 638,782. Of these, 15% were younger than the age limit set by the researchers. At the 3.7 confidence interval, a representative sample of 700 people was acquired. This was also the number of received and completed questionnaires. The return was 60%. The respondents were selected by the quota selection with the quotas given: gender, age, district and place of residence, determined by the size of the municipality. 45.5% of men and 54.5% of women participated in the survey. 6.4% had primary education, 66.6% secondary and 27% a university degree. The average age was 40.6 years. Prior to the survey, respondents were introduced to the aim and use of the research and its anonymity. Questionnaires were distributed by trainees from university students. Data was processed in the SPSS statistical program through correlation, ANOVA, chi-square test and t-test analysis at a 95% level of significance.

3. RESULTS

The first researched factor was satisfaction with housing in the given municipality in relation to selected socio-demographic variables. In its results, the t-test concerning sex vs. life satisfaction in the municipality (answers based on a five-tier Likert scale) show that there is no statistically relevant relation between the variables ($p=0.520$), the average value was 3.97 for men and 4.05 for women. When looking at age, there was detected a statistically relevant relationship - a weak correlation ($p=0.006$; $r=0.107$). The factor education ($p=0.509$) did not correlate with the satisfaction with the place of residence, neither did the socioeconomic status - ANOVA ($p=0.340$). The factors residence satisfaction and the opinion on the situation of local economy of the municipality ($p=0.3665$) also do not correlate. A statistically relevant relationship was detected for the factors residence satisfaction and the tendency to move away ($p=0.000$), which is logical - who is not satisfied with their place of residence will move to a different location with a higher probability. The next set of questions focused on moving. Respondents were asked if they are planning on moving from their current place of residence, if yes then why, and where they would like to move. 20.8 percent of respondents planned on moving; 13.5 percent were planning to move within the current year. The respondents most frequently planned to settle in their current district. The reasons for moving were chosen by the respondents from several options. The results are shown in the Figure 1. The most frequently mentioned reason for moving was a shorter distance to work.

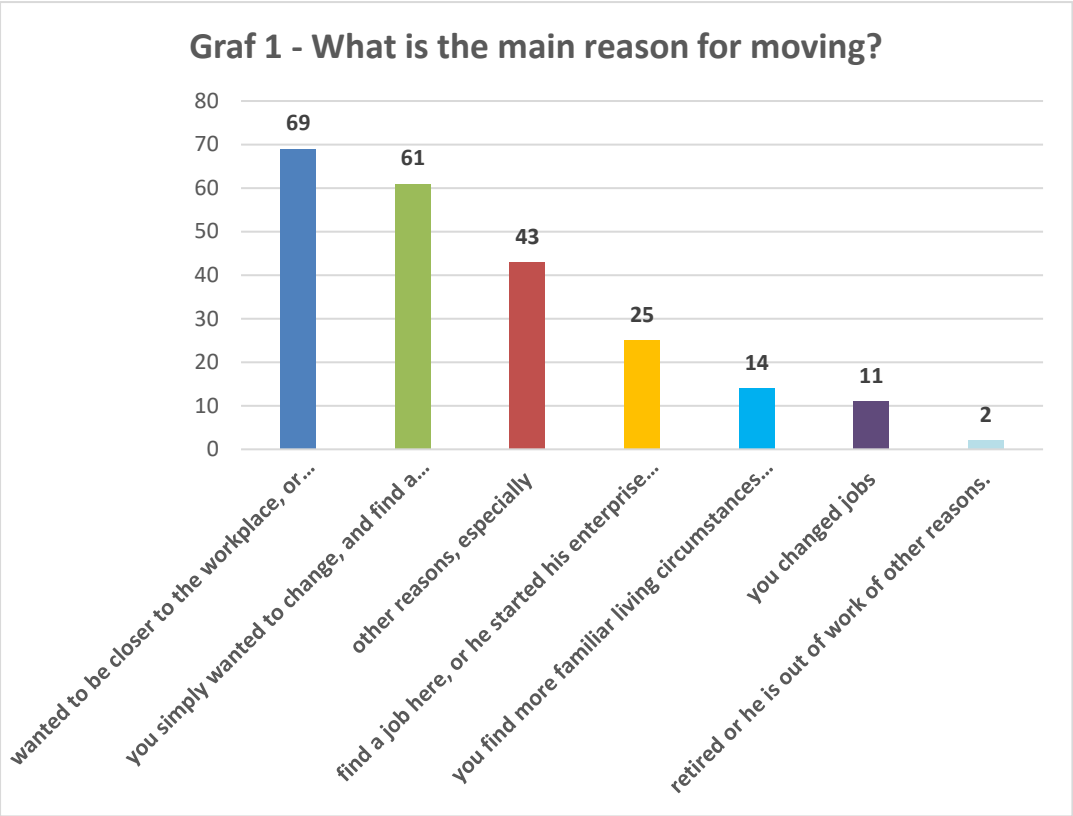


Figure 1: What is the main reason for moving?

Respondents were also asked if they think that their municipality is developing, stagnating, or worsening. 44.8 % of respondents assessed that the situation in their municipality was average; only 19.2 % think that the situation is positive. 51.2 % of respondents believe that their municipality is developing, as shown in Figure 2.

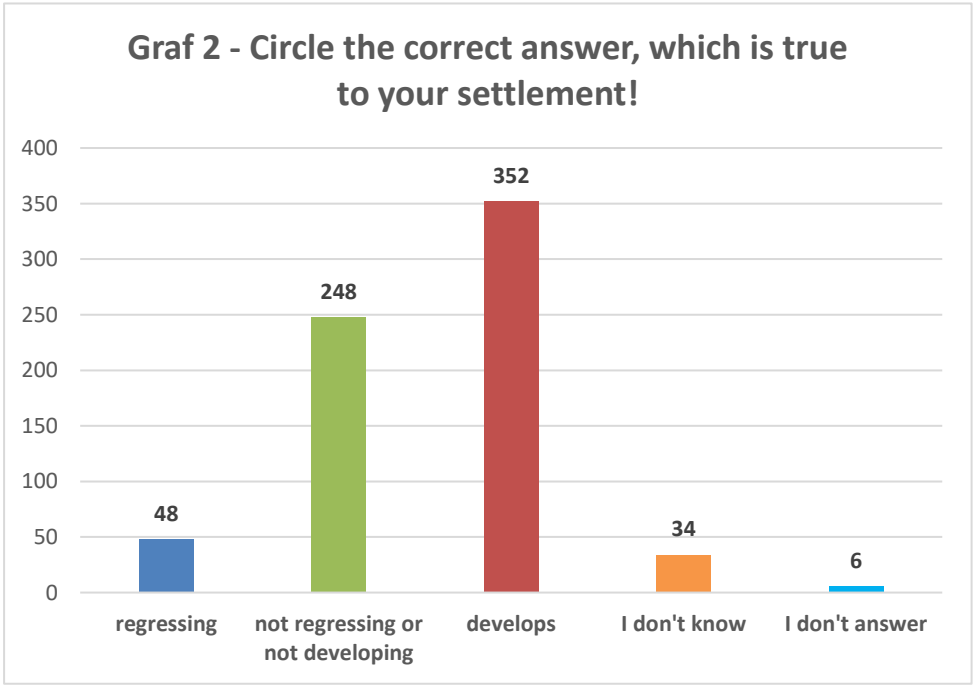


Figure 2: Circle the correct anwer, which is true to your settlement!

Differences between municipalities in the Czech Republic were perceived by the respondents as follows. 47.5 % see the differences between Czech municipalities as significant, as shown in Figure 3. 38.9 % believe that the people in their municipality live similarly to people in other Czech municipalities; 26.3 % believe they live better than others - related to the answer of the following question: the respondents most frequently state that their municipality has developed equally well or better in recent ten years, as compared to other similar municipalities. Nevertheless, the prospects are more conservative; about one half of the respondents believe that the municipality development will stop and stagnate - Figure 4.

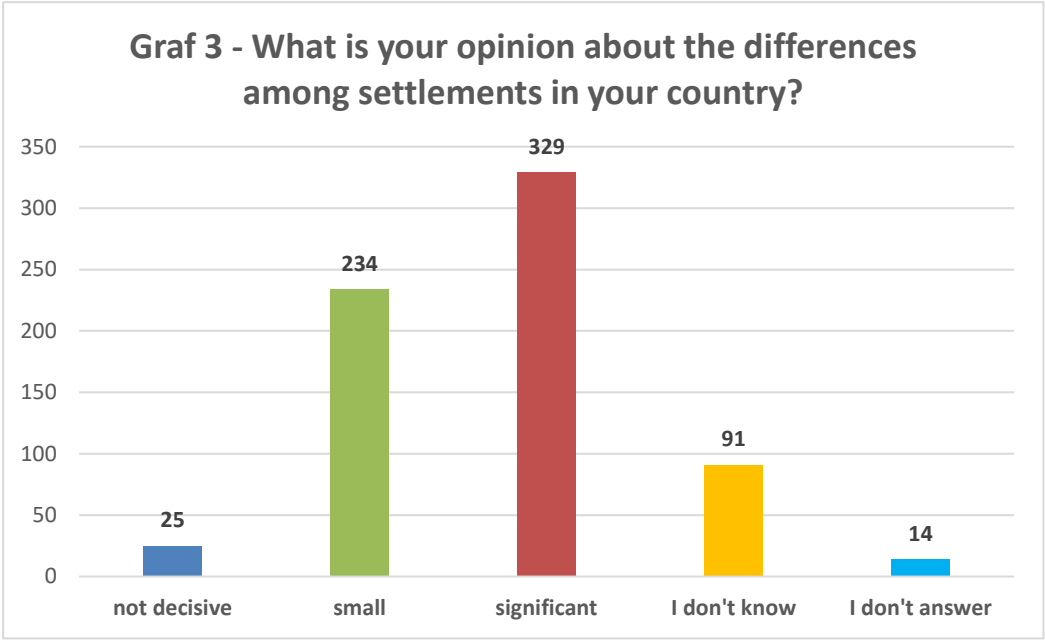


Figure 3: What is your opinion about the differences among settlements in your contry?

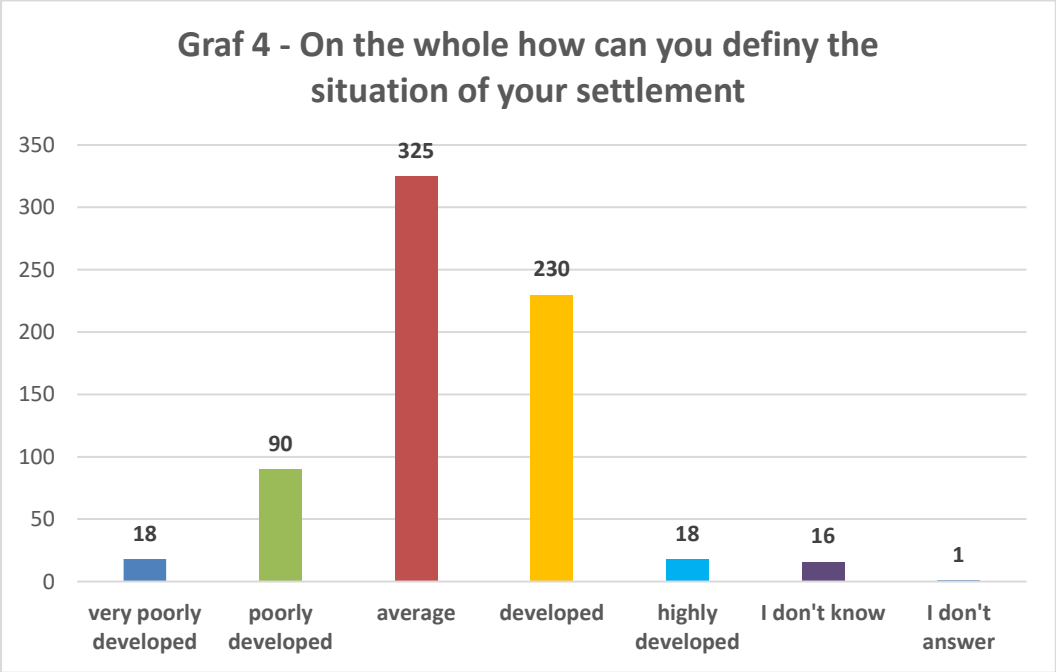


Figure 4: On the whole how can you definy the situation of your settlement

Statistical relationships between questions concerning on municipality development were asked next. The relationship between municipality development perception and the tendency to move, shows a statistically relevant correlation between the variables: p=0.002. The Chi-squared test had the value of 37.396. The ones who think that their municipality is stagnating or worsening, have a higher tendency to move that the ones who think that their municipality is developing positively. The connection between the perception of the municipality and the opinion on the differences between Czech municipalities shows a statistically relevant correlation between the variables p=0.000; the value of the Chi-squared test is 71.040. The ones who think that their municipality is stagnating or worsening have a higher tendency to perceive other municipalities as more developed or the rate of development as inconsistent. The sex does not at all correlate to the perception of the municipality development (p=0.539), neither does age (p=0.596), socio-economic status (p=0.911), or education (p=0.073).

4. DISCUSSION AND CONCLUSION

Research on subjective perceptions of satisfaction with community life and regional development is scarce in the Czech Republic, and the ones dealing with this research field are usually bachelor's or master's thesis. The data agree that the quality of life is higher in districts located in close proximity to large cities, but not directly in the cities. This can be interpreted as people being drawn to certain advantages offered by large cities (employment, education, etc.), yet not wanting to live there. The South Bohemian Region is somewhere in the middle of the district ranking. Analyses confirm that there is no significant increase in regional differences at regional level (Ministry for Regional Development, 2017). As far as migration is concerned, research shows that the most common factor is employment, migration for education is mostly done by college students. In terms of distance, in most cases, people move to another region within the Czech Republic. Two-thirds of Czechs would not, however, move even for a more attractive job offer or better wage conditions (Stenkmark, 2017).

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INTEGRATION OF ISO 9001 AND SIX SIGMA IN TERMS OF CONTINUOUSLY IMPROVING QUALITY MANAGEMENT

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ABSTRACT

Purpose: ISO 9001 is an international standard prepared for quality management systems in various industries. Six Sigma is a widely used methodology for improving processes. However, when looking at the ISO 9001 standard and the Six Sigma methodology, they have general requirements. This article deals with the possible application of ISO 9001 and Six Sigma, which are used for different purposes at the enterprise.
Design: Different literature on the subject has been studied and compared to ISO 9001 and Six Sigma and their integration is analyzed.

Finding: With the integration of ISO 9001 and Six Sigma, it is possible to reduce the inconsistency at the enterprise and to ensure sustainable quality improvement by improving the quality of the product. This article provides the theoretical basis for the integration of Six Sigma and ISO 9001.

Research limitations / implications: The article presents the integration model of ISO 9001 and Six Sigma. However, these models can be expanded by incorporating normativ references and other standards.

Practical conclusions: The aim of this study is to examine the advantages and benefits of Six Sigma integration with ISO quality management system.

Originality / value: The paper structure is based on the analysis of various ideas related to the application of ISO 9001 Integration with Six Sigma in Literature. In addition, this theme provides a useful framework for the development, implementation, maintenance and improvement of QMS in parallel with the Six Sigma program.

Keywords: *Continuous İmprovement, ISO 9001, Integration, Quality Management System, Six Sigma*

1. INTRODUCTION

Quality is the most important factor distinguishing enterprises from competitors. Qualitative steps create quality products and provide quality services. This will increase customer profits and productivity by meeting customer needs. There are various systems, methodologies and tools that help to improve quality, including Six Sigma and ISO 9001. They can be used individually or at the same time to achieve the desired level of quality. Six Sigma is an approach to improving the process. The main goal here is to improve the performance of a particular process in the form of a project every time. Businesses have implemented Six Sigma as a continuous improvement methodology. Companies such as IBM, General Electric and Ford have adopted Six Sigma as a requirement to achieve a high level of performance and increase

employee skills. ISO 9001 is a quality management system that requires a continuous process of development based on the overall control of production operations. ISO 9001 is a control system that requires documentation of all activities. It uses the ISO 9001 Plan-Do-Check-Act (PDCA) model in all systems to apply all the processes, but also improvements to the process. The above suggests that ISO 9001 and Six Sigma serve two different purposes. ISO 9001 is a system for quality management, the methodology for improving the Six Sigma process. There is a logical connection between the ISO 9001 quality management system and Six Sigma, and these relationships and their integration allow for mutual benefit. The purpose of this article is to provide an idea and value by linking Six Sigma with ISO 9001. The topic is to analyze ISO and Six Sigma separately, to identify the relationships between them and to learn the advantages of their integration.

2. LITERATURE RESEARCH

2.1. Six Sigma

Six sigma is a process improvement method used by companies such as AlliedSignal and General Electric in the mid-1980s, which was widely used by Motorola in the mid-1980s. Nakhai and Neves (2009) state that Six Sigma is a scientific, systematic and statistical approach to improving the business process. Six Sigma is a defect rate of 3.4 per million or less. The whole process is not required at the Six Sigma level, because the quality of performance depends on its strategic value and improvement costs. (Kumar et al., 2007, pp 849-866). Six Sigma has five implementation cycles: "Identify," "Measure," "Analysis," "Improve," and "Control" (DMAIC) (Antony, 2006, pp 20-27).

- Determine: Processes, customer requirements and expectations of stakeholders.
- Measurement: The actual performance of the process is determined. Data is collected for actual measurement.
- Analysis: statistical data and process data are analyzed in detail to determine the causes of deviations in the performance of the processes.
- Improvement: solutions aimed at improving the performance of the process are applied.
- Control: The current state of the process is monitored continuously

Six sigma companies are used as projects to improve a certain portion of the process. The key issue is the sustainability of the Six Sigma project results.

2.1.1. Six Sigma Problems and Problems

The Successful Six Sigma project saves financial costs while reducing defects. Management's attitudes, beliefs, are critical to the successful application of Six Sigma (Abel 2015, 94-111) Large expense and knowledgeable human resources are factors that limit the implementation of Six Sigma projects. It is also a difficult task to select and apply the right Six Sigma project in production. Sambhe,(2012) argued that most of the selection criteria depend on the quality of the product, delivery, and the product's usefulness. If the selection criteria do not meet the requirements of the enterprise, the company's goals will not be compatible with the company's human, capital and time resources. The Six Sigma project can take a long time and a bigger stock if it's too big and multifunctional. When the project is small, sometimes the management does not want to invest it.

2.2. ISO 9001

The ISO 9000 series is the standard that sets out requirements for quality management systems (9001) and rules (9004). For the first time in 1987, the ISO 9000 released by the International Organization for Standardization was revised in 1994 and 2000. ISO 9001 Quality Management Standard.

This Quality Management System is a system that describes the structure, processes, responsibilities, and resources required to identify minimum quality requirements. This standard is also used to evaluate enterprise quality assurance efforts. ISO 9001 bases the documentation of processes and hence serves as a basic training mechanism. Continuous improvement activities are standardized by reviewing or revising the newly developed procedures and guidelines.

2.2.1. ISO successful implementation terms

"Management Responsibility","Resource Management", "Product Realization" and "Measurement, Analysis and Improvement" are key factors in the application of ISO to achieve customer satisfaction in the Quality Management System. In addition, the sustainable development of the QMS is an essential element for achieving customer satisfaction. It is important to apply the following steps to effectively apply the ISO 9001 standard in an enterprise:

- The first requirement is the quality management systems basics- the general requirements of the standard covering all activities in the documentation of the quality management system intended to achieve planned results.
- Management responsibility depends on the commitment of managers to the quality management system.
- The third requirement of the standard provides the criteria needed to manage resource management and to perform activities in a capable and safe environment. This section deals with human resources, infrastructure planning and working conditions.
- Product realization phases cover everything from product planning to the final delivery stage.
- Throughout the measurement, analysis and improvement phase, it is based on internal audit, customer satisfaction monitoring, inappropriate product monitoring, data analysis and monitoring, measuring, analyzing and improving quality management system by performing corrective and preventive activities.

2.3. Communication between Six Sigma and ISO 9001

In ISO 9001, the "process approach" is presented as one of the key parts of the Quality Management System. It is based on the popular Deming Circles (PDCA) in the world. Instead of providing quality, attention was focused on 'Improving Quality'. However, this standard does not provide any means or methodology. As a result, although quality improvement activities were important, quality managers and inspectors did not use the tools to improve quality. As a result, some enterprises consider the application of this standard useful, but some do not. Zeng and Tam say that ISO 9001 increases operational costs and reduces product quality.This is due to the fact that ISO has a paper business volume and a lack of focus on continuous improvement. (Chini and Valdez, 2003, pp 78-82) Therefore, enterprises implementing ISO 9001 need to integrate with QMS and Six Sigma in order to achieve full benefit. At the same time, the application of the Six Sigma in the environment used by the weaker QMS program also does not give a positive result. Therefore, enterprises have identified weaknesses of the current QMS and need to integrate and strengthen the Six Sigma methodology in order to ensure success of both approaches later.

Table following on the next page

Table 1: Comparison of ISO 9001 QMS and Six Sigma

Parameter	***İSO 9001***	***Six Sigma***
APPROACH	Quality management system	It is a strategy to improve your business performance
FRAMEWORK	Framework to create "the idea of improvement"	It is a framework for improving and combining it with earnings
AREA	Identifies the requirements for the quality management system	Uses some strategy, methodology, tools, and metrics to improve your business performance
INTENT	Contracts are used for certification and / or evaluation purposes	Used to optimize performance and increase profitability
PROBLEM SOLUTION	Provides solutions to the problem, but does not indicate how the process will take place	Provides the necessary improvement process
LEADERSHIP	Representative in quality management	Belt system
TOOLS	Non-specific	Statistical tools
TRAINING	Human resources	Belt system training
BENEFITS	Improve financial performance but is not quantifiable	Profit Oriented
METHOD OF IMPROVEMENT	PDCA model	DMAIC or DFSS roadmap
DOCUMENTATION	High level paperwork	No specific documentation available

3. SIX SIGMA AND ISO 9001 INTEGRATION

The best way to successfully integrate Six Sigma with ISO 9001 is to recognize it as a management system that covers all levels of enterprise. Six Sigma and ISO 9001 are both versatile and have many similar principles, but serve different purposes. (Snee & Hoerl, 2003). Six Sigma Integration with ISO Quality Management System is the key to quality management. Literature research focuses on obtaining general information about ISO and Six Sigma. In the second part, strong and weaknesses of both ISO and Six Sigma were studied. Based on the information obtained in this section, the issues of integration of ISO and Six Sigma have been analyzed. Six Sigma and ISO Integration are available in the following areas.

3.1. Integration of Six Sigma and ISO "Resource Management"

The Six Sigma Belt System can be integrated into the "Resource Management" of a process-based model in ISO 9001: 2008. (Karthi, 2011, pp 309-331). The human resources management process in ISO 9001 can be adapted to the Six Sigma belt system (Marques, 2013, 36-59). As a leader of the Six Sigma project, it is possible to select highly qualified staff. In addition, the training needs of the Six Sigma staff are determined by comparing the specific and required skills needed to achieve a higher level of skill (Pfeifer et al., 2004, pp 241-249). Six Sigma is useful for enterp-rise development, implementation, maintenance and improvement of ISO 9001 helping to identify possible means and methods. Pfeifer et al. (2004) recommends using SIPOC diagrams to fulfill specific ISO 9001 management requirements. Gupta (2004) recommends using the Six Sigma statistical tools to comply with the data analysis requirements included in the standard.

3.2. Integration of Six Sigma and ISO 9001 "Management responsibility"

ISO Quality Control Review can be reviewed with the Six Sigma Project. (Sambhe, 2012, pp). In this sense, along with management review activities, it may also recommend the Six Sigma project (Marques, 2013, pp 36-59) and also offers a solution to overcome the barrier during the implementation of the Six Sigma project. Top management's sense of responsibility and participation ensures the success of the Six Sigma project. (Anthony and Banuelas, 2002, pp 20-27).

3.3. Integration of Six Sigma and ISO 9001 "Product Realization"

Implementation of ISO product consists of planning process, operational control and product design. The Six Sigma DMAIC methodology is included in the product realization to improve the planning process. The statistical tools in Six Sigma determine the process change to ensure productivity in the pr-oduct realization and reduce the deficit rate (Thomas, 2010). Marques found that the Six Sigma measurement system analysis could increase stability and accuracy in the process of controlling the process.

3.4. Integration of Six Sigma and ISO 9001 "Measurement, Analysis and Refinement"

Six Sigma and ISO are the same as a sustainable improvement approach. Emphasizing the importance of sustainable development of the ISO process, he presented a broad model that sustained development to ensure customer satisfaction. ISO needed the systematic and scientifically sustainable improvement approach like the Six Sigma. (Nakhai & Neves, 2009, pp 26) Warnack notes that the Six Sigma project is one of the most important ways to ensure continuous improvement in the enterprise. Six Sigma is the ideal feature to help improve quality improvement in ISO because it has a feature that can reduce up to 3.4 million per million (Chakrabarty and Tan, 2007, pp 194-208).

4. EFFECTS OF ISO 9001 AND SIX SIGMA INTEGRATION ON THE ENTERPRISE

Relationships between Six Sigma and ISO 9001 QMS have a positive impact on on-premises culture. As a result of his research, Yeung has witnessed the need to integrate customer requirements and requirements into the Six Sigma program with improved internal culture. (2007) Documents produced by ISO 9001 and Six Sigma help systematize and standardize the performance. According to Snee and Hoer,(2003) ISO 9001 is the perfect tool for documenting and protecting process management systems included in the Six Sigma. ISO 9001 QMS documents as the systemicity and effectiveness of the Six Sigma programs increases, the documents received during the implementation of the Six Sigma projects can also provide a continuous improvement of the QMS. Since the responsibilities, responsibilities and mandate of the staff involved in the ISO 9001 QMS are to be determined, this information may be used to select the most competent participants in the Six Sigma project (Bewoor and Pawar, 2010, pp 105-131). ISO 9001 internal audits can be implemented in parallel with the Six Sigma DMAIC project. ISO 9001 may help sustain Six Sigma projects (Dey, 2002) In this sense, internal audit programs can cover not only the administrative capabilities of the Six Sigma initiative, but also individual control stages and related projects (Warnack, 2003, pp 42-49) . Both approaches are aimed at continually improving. The Six Sigma DMAIC is based on the PDCA's continuous development cycle, so it can be used to perform a continuous improvement of the standard from the DMAIC method. (Gupta, 2004). From this point of view, Six Sigma projects are used as a way to ensure continuous improvement in one enterprise (Warnack, 2003, pp 42-49). ISO 9001 requirements are consistent with the identification of potential Six Sigma projects. QMS audits serve as a source of information for potential improvement areas. Also, the ISO 9001 QMS can be based on customer satisfaction and satisfaction levels, and can also identify areas for Six Sigma projects.

5. CONSLUSION

Six Sigma and ISO quality management systems are well-known quality methodologies and can be applied in industry. When compared to the quality management system, Six Sigma is a more structured and effective sustainable development methodology with its own instrument and method. However, these methodologies are applied separately for different purposes and targets in the enterprise. Integration of Six Sigma and ISO 9001 is a further expansion of the methodology in the quality world. When integrating Six Sigma and ISO 9001, Six Sigma provides the following methodology to achieve quality-related objectives:

1. Prevention of defects at each stage, from design to customer delivery
2. Statistical methods required to establish, manage and verify the process's capability and product characteristics;
3. examine the reasons for defects in product, process and quality system;
4. continuous improvement of quality of products and services

Six Sigma supports ISO and helps an organization that provides ISO requirements. Additionally, ISO is an excellent tool for documenting and storing process management systems for Six Sigma. Detailed training is required for the successful implementation of both systems.

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SPECIES COMPOSITION AND QUANTITATIVE DISTRIBUTION OF LARVAE OF DRAGONFLIES (ODONATA) IN THE NEW ECOLOGICAL CONDITIONS OF THE LAKE MEHMAN

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ABSTRACT

The paper presents new data on species composition, number and distribution of the larvae of dragonflies (Odonata) in new environmental conditions of the different habitats of in the lake Mehman. Field works conducted in 2015 - 2017 in the lake Mehman resulted in the rearings of 25 species and forms of dragonfly larvae. Seven of these L. nympha, S. fusca, E. viridulum, İ. pumilio, O. concellatum, L. depressa, L. quadrimaculata, Cordulia sp. are new to the lake. Species Lestes virens, and I.elegans, were found in winter, spring and autumn of 2015 and winter and autumn of 2017; C.scitulumin winter and autumn of 2015; C.hastulatum - winter, spring and autumn of 2017; E.fatimein winter and autumn of 2015 - 2017; in winter and spring of 2015 - 2017. Species C. mercuriale, C. scitulum, L. virens, İ. elegans, C. puella, E. najas, O. albistylum are observed in the lake in all seasons and are dominated by widespread. It should be noted that the decrease in the number of larvae of dragonflies in the summer, especially at depths of up to 0.5 m is due to their intensive consumption by fish and water birds and emergence of adult dragonflies which leave the lake. On the other hand, in summer period, the volume of oxygen in shallow water of the lake Mehman greatly reduced, and asa result of evaporation of water, the amount of salts in water is increased. In such circumstances, the probability of occurrence of freshwater organisms in the benthos is naturally decreased. The study of the distribution of larvae of dragonflies on specific habitats of the lake revealed their maximum development on plant and silty habitats, and the minimum - on black silty sand. Changes in biomass of benthic organisms as well as larvae of dragonflies, which developed very poor is analyzed. Poor development of dragonfly larvae in the lake Mehman characterized, on the one hand with their intensive consumption by fish and water birds and on the other hand - the steady worsening of the environmental conditions of the lake.

Keywords: *Lake Mehman, larvae of the dragonflies, species composition, number, habitat, distribution*

1. INTRODUCTION

The larvaeplay an important role in the formation of the biological productivity of water basins.They form the basis of the fish food in fishery, especially predatoryfishes.The main purpose of the research is to study the species and quantities of larvae in the Mehman lake.

2. MATERIALS AND METHODIC

The study was conducted in 2015/2017 seasons. The larvae have been collected using common methods adopted in hydrobiological studies (Jadin, 1956). In order to study the composition of species of larch species, the samples were collected using narrow eyelets and scraper made of gas material №20 using the damping device with a drainage area of 0.025 m² to calculate their uniformity. Collecting of the larvae, which is found among the plants, has been carried out in special containers - washing in lounges. 70% alcohol or 4% formalin solution was used to fix the collected materials. To identify species of larvae, used the book A. N. Popova (2) “Larvae of dragonflies fauna CCCP (Odonata)” and the Internet data. Mehman Lake is located in Aghjabadi, partly in the Beylagan region, in the plain between the Aggöl and Kura river, on the right bank of the river, 2 km from the river.

It is nourished by the water of the Kur River, and finally has a modern appearance. Currently, the lake exists at the expense of Aggol through the Boz-Gobu Canal and partly due to drainage waters. On the other hand, floods in the Kur River flow into the lake Mehman. The paper presents new data on species composition, number and distribution of the larvae of dragonflies (Odonata) in new environmental conditions ofthe different habitats of in the lake Mehman. Field works conducted in 2015 - 2017 in the lake Mehmanresulted in the rearings of 25 species and forms of dragonfly larvae. Eight of these L. nympha, S. fusca, E. viridulum, İ. pumilio, O. concellatum, L. depressa, L. quadrimaculata, Cordulia sp.arenew to the lake.Species Lestes virens, and I.elegans, were found in winter, spring and autumn of 2015 and winter and autumn of 2017; C.scitulumin winter and autumn of 2015; C.hastulatum - winter, spring and autumn of 2017; E.fatimein winter and autumn of 2015 - 2017; in winter and spring of 2015 - 2017. In the study period (2015 - 2017) the number of species of dragonfly larvae reaches a minimum in summer (13 species), and the maximum (18 species) in autumn. Species L. virens, İ. elegans, C. hastulatum, C. mercuriale, C. scitulum, O. albistylum are observed in the lake in all seasons andare dominated by widespread. It should be noted that the decrease in the number of larvae of dragonflies in the summer, especially at depths of up to 0.5 m is due to their intensiveconsumption by fish and water birds and emergence of adultdragonflieswhich leave the lake. On the other hand, in summer period, the volume of oxygen in shallow water of the lake Mehmanis greatly reduced, and as a result of evaporation of water, the amount of salts in wateris increased. In such circumstances, the probability of occurrence of freshwater organisms in the benthosis naturally decreased.

Table following on the next page

Table 1: Changes in species of larvae (Odonata, larvae) on seasons in Mehman Lake in 2015/17 (data summarized)

	SPECIES	**SEASONS**			
№		**Winter**	**Spring**	**Summer**	**Autumn**
1	*Epallage fatime* Charpentier, 1840	+ +	+ +	+	-
2	*Lestes virens* Charpentier, 1825	+ ++	++	-	+
3	*L. dryas Kirby*, 1890	- -	-	++	-
4	*L. sponsa* Hansemann, 1823	++	++	-	-
5	*Sympycna fusca* Vander, 1820	-	+	-	+
6	*Platycnemis pennipes* Pallas, 1771	+	-	-	++
7	*Ischnura elegans* Vander, 1820	+++	+++	+++	+++
8	*I. pumilio* Charpentier, 1825	+	++	+	-
9	*Coenagrion concinnum* Johanssen, 1859	-	++	++	-
10	*C. hastulatum* Charpentier,	+++	++	-	+++
11	*C. mercuriale* Charpentier, 1840	+++	++	+	+++
12	*C. scitulum* Rambur, 1842	+++	+++	++	+++
13	*C. puella* Linnaeus, 1758	-	++	++	+++
14	*Erythromma najas* Hansemann, 1823	-	-	++	+++
15	*E. viridulum* Charpentier, 1840	-	+	-	-
	Anisoptera				
16	*Gomphus flavipes* Carpentier, *1825*	++	+++	-	++
17	*Aeschna juncea* Linnaens, *1758*	++	_	_	++
18	*Cordulia* sp.	+	_	-	+
19	*Orthetrum concellatum* Linnaeus, 1758	-	-	+	-
20	*O. albistylum* Selys, 1848	+	++	+	++
21	*Libellula depressa* Linnaeus, 1758	-	-	-	+
22	*L. quadrimaculata* Linnaeus, 1758	-	-	-	+
23	*L. fulva* Müller, 1764	++	++	-	++
24	*S. vulgatum* Linnaeus, 1758	-	++	++	++
25	*S. sangineum* Müller, 1764	+	_	+	+
	TOTAL	**15**	**16**	**13**	**18**

Table following on the next page

Table 2: Changes in quantitative development of the larvae (Odonata, larvae)in Mehman lake in 2015/17 years (individual / gr x m²)

	Seasons / SPECIES	2015					2016				
		Winter	Spring	Summer	Autumn	Average	Winter	Spring	Summer	Autumn	Average
1.	*İ. elegans*	3 0.01	3 0.02	1 0.01	4 0.02	3 0.02	4 0.03	3 0.03	1 0.01	1 0.01	2 0.02
2.	*İ. pumilio*	4 0.03	4 0.04	1 0.01	3 0.03	3 0.03	7 0.06	5 0.04	1 0.01	3 0.03	4 0.03
3.	*C. hastulatum*	7 0.05	6 0.06	--	7 0.03	5 0.04	8 0.07	6 0.06	–	5 0.04	5 0.04
4.	*C. mercuriale*	6 0.04	3 0.03	1 0.01	5 0.03	4 0.03	10 0.10	12 0.12	3 0.01	7 0.06	8 0.07
5.	*C. scitulum*	5 0.03	10 0.13	3 0.01	7 0.07	4 0.06	15 0.13	10 0.10	3 0.01	2 0.01	7 0.06
6.	*C. puella*	–	9 0.10	1 0.01	3 0.02	3 0.01	–	4 0.06	1 0.01	2 0.01	2 0.02
7.	*C. vulgatum*	–	1 0.01	–	1 0.01	1 0.01	–	1 0.01	1 0.01	2 0.01	1 0.01
	TOTAL	**25** **0.16**	**38** **0.39**	**7** **0.05**	**30** **0.21**	**21** **0.21**	**44** **0.39**	**41** **0.42**	**10** **0.06**	**22** **0.17**	**30** **0.25**

3. CONCLUSION

In the Article describes species composition larves Odonata in lake Mehman 25 speciesare the main species Coenagrion genus), quantity (1m² in field 21 - 30 the individuals, 0,21 - 0,25 q) and give about information 8 species – (L. nympha, S. fusca, E. viridulum, I. pumilio, O. concellatum, L. depressa, L. guadrimaculata, Cordilia sp.) are new species for fauna of Azerbaijan. Changes in biomass of benthic organisms as well as larvae of dragonflies, which developed very poor isanalyzed. Poor development of dragonfly larvae in the lake Mehmanis characterized, on the one handwith their intensive consumption by fish and water birds andon the other hand - the steady worsening of the environmental conditions of the lake.

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AZERBAIJAN FROM INCLUSIVE AND INNOVATIVE GOVERNANCE TO GREEN ECONOMY

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ABSTRACT
The entry of Azerbaijan into the list of developed countries by 2025 is a priority task set by government. Further development of country is based on sustainable development conception. Since the recent economic achievements of Azerbaijan are based on the principles of inclusive and innovative management and this trend is the basis of transition to a sustainable green economy. Knowledge-based economy in parallel with the inclusive and innovative governance, in turn, serves to restore the ecological balance and effective resource management. At the same time conveying the effectiveness of innovative development to the population provides social welfare. In this regard, some examples of efforts and initiatives for sustainable development by government reviewed in the article.
***Keywords*:** *Inclusive and innovative governance, sustainable development, green economy, knowledge based economy, environmental management, competitive economy, energy efficiency*

1. INTRODUCTION

An environmental education will empower future leaders with the knowledge and tools necessary to relate to the environmental challenges of our time. Our actions today are the seeds we sow that will bear fruits reaped tomorrow. [Aliyeva, 51]. For the country that took the path of sustainable economic development is particularly important to make constructive use of scarce resources as well as knowledge-based human potential. Indeed, in the recent years Azerbaijan has succeeded to achieve a competitive economic structure based on information and innovation, improve the living standards of society, adoption of democratic tradition by society, providing high-quality employment opportunities through reforms realized in public administration and economic management during last decade. Policies and implementations targeted for raising economic welfare of the society inevitably contribute to all pillars of sustainable development [Ahmadov, 258]. In this context, structural problems of the economy were overcome and significant improvements were achieved in economic indicators such as GDP growth rate, GDP per capita, borrowing requirement and public finance, inflation, balance of payments and employment. At present, Azerbaijan provides 100% of its gross energy consumption through domestic production, which is currently largely reliant on the exploitation of the country's hydrocarbon reserves, namely oil and natural gas. Azerbaijan exports oil, natural gas and electricity. Over the last years, the Republic of Azerbaijan has successfully identified political development, administrative reform and comprehensive economic development as national priorities in order to increase economic growth, alleviate poverty and unemployment. Proof of this Azerbaijan has become a member of United Nations Economic and Social Council (ECOSOC UN). Slow progress in living standards and widening inequality have contributed to political polarization and erosion of social cohesion in many advanced and

emerging economies. This has led to the emergence of a worldwide consensus on the need for a more inclusive and sustainable model of growth and development that promotes high living standards for all [21, p.2]. GDP growth is best understood as a top-line measure of national economic performance, in the sense that it is a means (albeit a crucially important one) to the bottom-line societal measure of success: broad-based progress in living standards. As many countries have experienced and the Inclusive Development Index data illustrate, growth is a necessary but not sufficient condition for robustly rising median living standards. Accordingly, policymakers and citizens alike would benefit from having an alternative, or at least complementary, bottom-line metric that measures the level and rate of improvement in shared socioeconomic progress. Designed as an alternative to GDP, the Inclusive Development Index (IDI) reflects more closely the criteria by which people evaluate their countries' economic progress. (Figure 1).

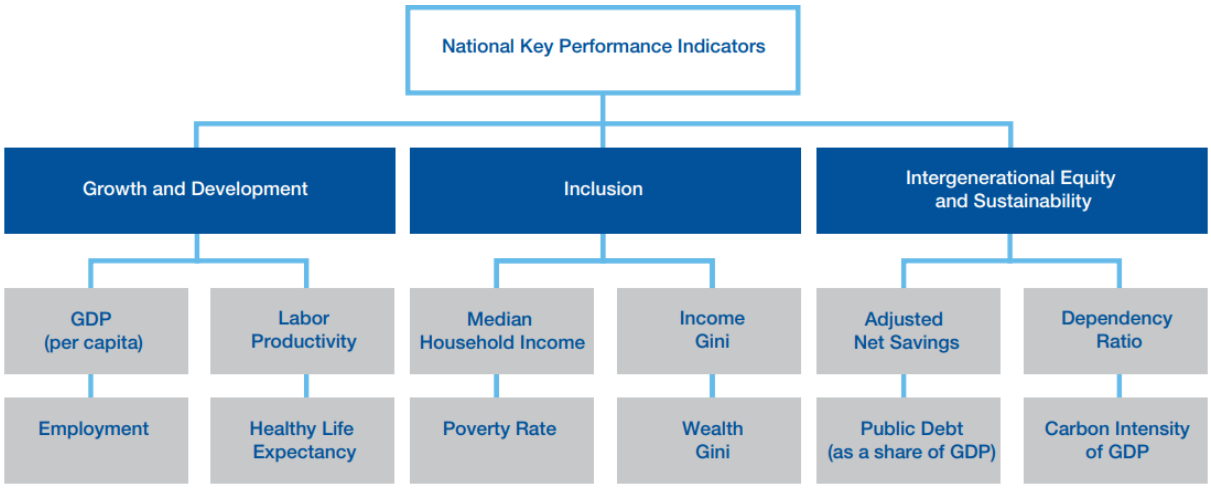


Figure 1: Inclusive Growth and Development Key Performance Indicators
Source: The Inclusive Development Index 2018 Summary and Data Highlights

In the ranking of emerging economies, six European economies are among the top 10: Lithuania (1), Hungary (2), Azerbaijan (3), Latvia (4), Poland (5), Croatia (7), and Romania (10). (Figure 2). These economies perform particularly well on Growth and Development, benefiting from EU membership, and Inclusion, with rising median living standards and declining wealth inequality. However, Azerbaijan has not EU membership its economy performs well. It is result of intensive reforms, reforms on governance especially on e-governance, government support to inclusive and innovative societies, youth societies and good neighborliness policy that held by government. Figure 2 show us that Azerbaijan not badly corrected by his challenges. The first main challenge was growth and development which contains GDP, employment, labor productivity, health life expectancy. The second challenge was Inclusion which contains median household income, poverty rate, income Gini and Wealth Gini. The third final challenge was intergenerational equity and sustainability. Intergenerational equity and sustainability consists of adjusted net savings, public debt, dependency ratio and carbon intensity of GDP. All the above key performance indicators played very important role to show high performance on Inclusive Development Index (IDI).

Figure following on the next page

RANK OVERALL	ECONOMY	OVERALL IDI SCORE	5 YEAR TREND IDI OVERALL (%)
1	Lithuania	4.86	4.90
2	Hungary	4.74	8.10
3	Azerbaijan	4.69	-2.07
4	Latvia	4.67	8.60
5	Poland	4.61	3.39
6	Panama	4.54	4.80
7	Croatia	4.48	2.89
8	Uruguay	4.46	1.65
9	Chile	4.44	1.76
10	Romania	4.43	4.21

Figure 2: Inclusive Development Index for Emerging Countries (IDI)
Source: The Inclusive Development Index 2018 Summary and Data Highlights

The other important indicators that specify the position of any country in the world community is competitiveness. This comprehensive indicator synthesizes many aspects of the economy: the quality of products and processes, resource consumption goods at all stages of their life cycles, image and brand value, business excellence manufacturers, retail and service organizations, legal certainty, and the organization, professionalism and efficiency of the public administration. The indices presented on Table 1, show that Azerbaijan between 2014-2016 had a best result among the CIS and Eastern Europe countries, ranking 38th among 140 countries.

Table 1. The Global Competitive Report

2014-2015			**2015-2016**	
Country	**Rank**	**Score**	**Rank**	**Score**
Azerbaijan	**38**	**4,53**	**40**	**4,50**
Lithuania	41	4,51	36	4,55
Latvia	42	4,50	44	4,45
Turkey	45	4,46	51	4,37
Kazakhstan	50	4,42	42	4,49
Russia	53	4,37	45	4,44
Georgia	69	4,22	66	4,22
Ukraine	76	4,14	79	4,03
Romania	59	4,30	53	4,32
Greece	81	4,04	81	4,02

Table 1: Adjustment to the GCI scores by sustainability indicators 2014-2016.
Source: Own construction according to the World Economic Forum, Global Competitiveness Report 2014-2015, 2015-2016 [24, p14]

Rapid development and swift industrialization of the South Caucasus region has brought about environmental concerns and raised many ecological issues in recent years.

From the date of "International Dialogue for Environmental Action" opening the centre has been home to many short and long term training courses, seminars, roundtables and lectures on environmental topics, as well as "eco-cinema" sessions both for students and specialists in this field. It subscribes to a number of international journals and bulletins in order to secure up-to-date information on environmental matters and make a difference though innovation, leadership and proactive actions [Aliyeva, 40]. Environment is a key cause of concern for young people in Azerbaijan as it is in the region and the world. 85 environmentalists from 35 countries participated in the International Camp of Young Environmentalists, held in Gabala. The Youth Camp was held for three days through an opening ceremony and three different workshops. Participants adopted «Gabala Declaration» calling on the people around the world to take personal responsibility on ecological problems and urging to bring environmental action and thinking into their daily lives. The main objectives of this camp were to promote active participation of the young environmentalists in public life of the region, to reinforce the role of young environmentalists in their own communities and encourage them to become an ambassador for local environmental awareness, and to nurture communities through an open dialogue, while ensuring the emergence of a new generation of independent young experts in the field of environmental studies. The future depends on how we live today. The Green Week dialogues were aimed at providing a platform where leaders from around the globe could voice concerns about the future of our planet and find innovative solutions for our economy and environment. Some of the objectives and themes that were discussed included the youth response to Rio+20, the role of major stakeholders in post Rio+20, the Green Economy, environmental diplomacy and international affairs. [Aliyeva, 65]. This is a reality that needs to be embraced by younger generations across the globe. We need to take responsibility for our environment and admit that our actions today are the seeds we sow that will bear the fruits to be reaped tomorrow. It is time to sum up the achievements of the recent year, plan for tomorrow and unite for one earth, one future" [Aliyeva, 2].

2. HOW THE KNOWLEDGE AND INCLUSIVE COMMUNITY AFFECTS AN ECONOMICAL PERFORMANCE

Promoting the wellbeing of current and future generations is the central objective of sustainable development. Sustainable Development is a pattern of economic development in which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come. Here we must to analyse ddifferences between generations. World is now sharing a number of fundamentally different generations, and it is necessary to address this issue by generations. Because economic performance and its sustainability depends not just only knowledge, innovation, smart and inclusive community. It also depends on generation habits. Individual generations of people or employees can be chronologically defined on Generation Baby Boomers, Generation X, Generation Y, Generation Z, and Last Alpha Generation. The characteristics of each generation can affect course development and sustainable development remains an integral part of these events. [Jana., Andrea, p.335]. Sustained social development, the reduction of poverty, a rise in living standards and improvements in wellbeing is not possible without economic development an increase in the production of goods and services and economic development cannot be decoupled from environmental change. The production and provision of all goods and services implies a transformation, degradation and depletion of natural resources. Effective use of energy resources is essential for sustainable development and there are various methods used in evaluating whether these resources are used. One of the widely proven methods for measuring the efficient use of resources is the index showing the consumption of energy needed to produce gross domestic product (GDP) [Alakbarov, 133]. From 2003-2013, GDP per unit of energy in Azerbaijan is increased by more than 3 times. (Figure 3).

In terms of these indicators, Azerbaijan demonstrates high performance in par with the developed countries. Managing natural resources to aid in the transition to sustainable development involves more than just extensive education at all levels. A sustainable nexus between social, economic and environmental development will not only require a more balanced distribution of economic resources, but also a shift towards green economies, characterized by sustainable patterns of consumption and production. [Alakbarov, 134].

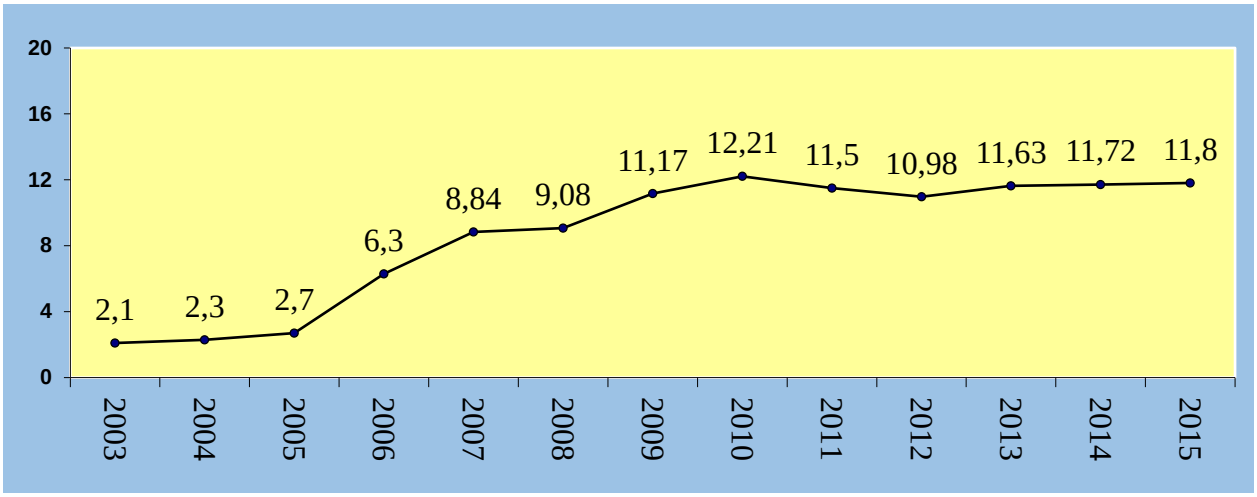


Figure 3: GDP per unit of energy use (PPP $ per kg of oil equivalent) in Azerbaijan Source: Own construction according to the World Development Indicators & Global Development Finance

As an indicator of this trend we can show more than 700 thousand new jobs from 2005 to 2015 most of which falls on the share of non-oil sector. Also an alternative energy use in Azerbaijan including sun, wind and electric power was in the focus of sustainable development trends. Nevertheless, economic and political crises taking place in the world has not passed Azerbaijan economy. During the economic crises of 2008 and 2014 non-oil sector growth rate increased at first, and then slowed down. See the Figure 2. The process of slowing down is due primarily to the decline in oil prices on world markets and the reduction of the State budget. In this regard, the government is taking steps to reduce some public investment programs that have been planned in advance for the development of the productive sectors of non-oil sector, while the budget allocated more funds to the social and economic programs. Despite the efforts of the Government of Azerbaijan to realize the diversification of industries and stimulating the development of non-oil sector, Azerbaijan today has a competitive advantage in the main oil refining and chemical industries. The main priority sectors in the development of non-oil sector in Azerbaijan are considered to be agriculture, tourism, technology of information and communication, processing industry. International financial institutions emphasize the importance of the agricultural and tourism sectors. Thus, 44 % of the employed population is working in this particular field. For this reason, the development of agriculture is carried out successive government programs and reforms involved the latest technology.

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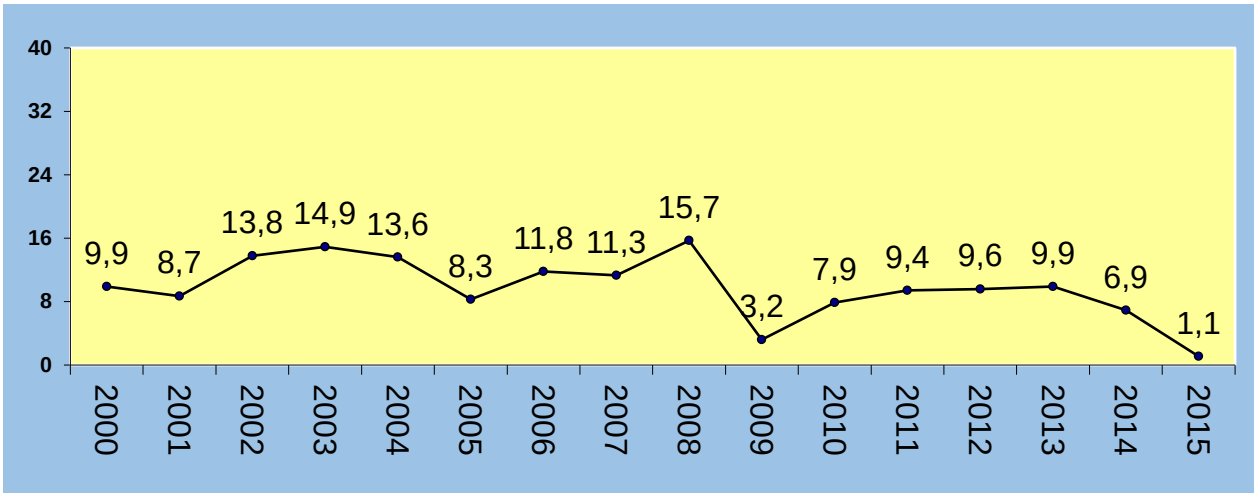


Figure 4: Non-oil economy share in GDP in Azerbaijan (%) Source: Own construction according to compiled by the author according to the Central Bank of Azerbaijan

The concept of green economies has emerged in recent years as a widely accepted shift from traditional thinking, in which environmental protection and management was viewed as being separate from economic development. It is now recognized that future economic development must be linked to both environmental and social pillars. With the democratic changes occurring all the world over, the populace in which the work community is inclusive must internalize democracy and discharge their civic duties to the country. [Ontor.,Emanuel, 2018, p.568]. A green economy must benefit coastal communities in developing states who depend on a healthy ocean for their survival. Healthy oceans are essential for the sustainable development of millions of people. Therefore, the concept of a green economy needs to be extended to a blue-green economy [16]. In this concern also Caspian Sea and Azerbaijan coastal area is of great importance according to green economy transformation progress. Population dynamics also have a critical influence on social, economic and environmental development and consideration of them needs to be central to any future development agenda [6]. Besides the weightless economy is also a knowledge based economy and considered to be a part of contribution to the green economy, where knowledge is widely traded as an intangible product, not just used as a tool to manufacture physical products. Software, databases and intellectual property are some examples of weightless economy. There are only two avenues still open for the continual betterment of a society, once its resources have been allocated to maximise the economic welfare of its citizens. The first is expropriation: a society can plunder the economic achievements of other societies. The second is technical progress: a society can utilise continuing developments in the arts and sciences to improve the lives of its citizens. The former option is neither clever nor subtle. More crucially, it is self-liquidating: it cannot result in sustained improvement [7]. Therefore, technical progress is the only feasible engine of growth in a modern economy. But it is naive to suppose there is not a price to pay for technical progress, and that to ensure continuing economic growth; societies can get by without making difficult sacrifices. Those choices might turn on whether to channel resources into blue-sky research, exploring the boundaries of human knowledge and experience, but which might have no immediately visible pay-off. Or, they might hinge on smoothing the reallocation of people and resources from one line of work to another, as new productive options open and others close. One example of these changes is what has come to be known as the "weightless economy". It is mean an economy where creating value is associated increasingly with dematerialised products: computers, telecommunications, machine and biological software, mathematical algorithms, and related services. Such an economy also includes designs and ideas - computer databases, new financial products, better entertainment and more efficient ways of transmitting

information. These objects are dematerialised because their economic values reside not in a physical form, but in their organisation of zeroes and ones, binary bits of logic. "Dematerialized products are important for economic growth for a number of reasons. First, they are infinitely expandable: their use by one person takes nothing away from their contribution to another's welfare or productivity. For instance, when a piece of software - installed on a satellite server circling the Earth - is used by myself in my office, no physical limitations prevent the simultaneous and equally efficient use of that software by someone else in New Zealand. The same is not true of a chocolate biscuit - once I have eaten that biscuit, no one else can" [7].

3. ENVIRONMENTAL MANAGEMENT

According to the Constitution of the Republic of Azerbaijan, everyone has a right to live in a healthy environment, as well as receive information about the current state of the ecology of the country. At the same time, no one is allowed to harm or damage the environment and natural resources. This is guaranteed by the state. According to the Constitution, the protection of the environment is the duty of every person. Ecological balance can only be achieved through the formation of an appropriate environmental outlook in all age groups, especially among the younger generation. Youngsters should be inculcated with a feeling of responsibility for the protection and improvement of the ecology in order to ensure their careful attention to the environment. For this purpose, different propaganda mechanism should be used. Key point here is to change the public attitude to the environmental problems [25, p.16]. Azerbaijan is situated between Europe and Asia, and embodies the Eastern wisdom and Western progress. The unique feature of Baku is that the architectures of ancient Icherisheher and Maiden Tower harmonize with samples of newly constructed modern buildings. In the past, Azerbaijan was the hub of the historic Silk Way. Geographical position of Azerbaijan has not only influenced our culture, but also our nature. 9 out of the 11 climate zones exist in Azerbaijan, and this ensures our biodiversity" [6]. Azerbaijan, as a country blessed with natural oil and gas reserves and located in an environmentally challenging region, has also been active in solidifying and focusing society efforts to thwart the dangers posed by ecological challenges. To that end, the year of 2010 was announced the «Year of Ecology» in Azerbaijan. To reduce dependence from fuel and gas the government adopted State Program on the Use of Alternative and Renewable Energy Sources. By this program it's expected to decrease CO2 emissions and till the 2020 it's expected to increase alternative and nuclear energy percentage of total energy use in Azerbaijan. One of main environment disaster in over the world is carbon dioxide emissions. Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring [13]. According to IEA and World Development Indicators on trends in greenhouse gas emissions the results of Azerbaijan emissions are less than Europe and Asia developed and developing countries, also with upper middle income countries. (Figure 5).

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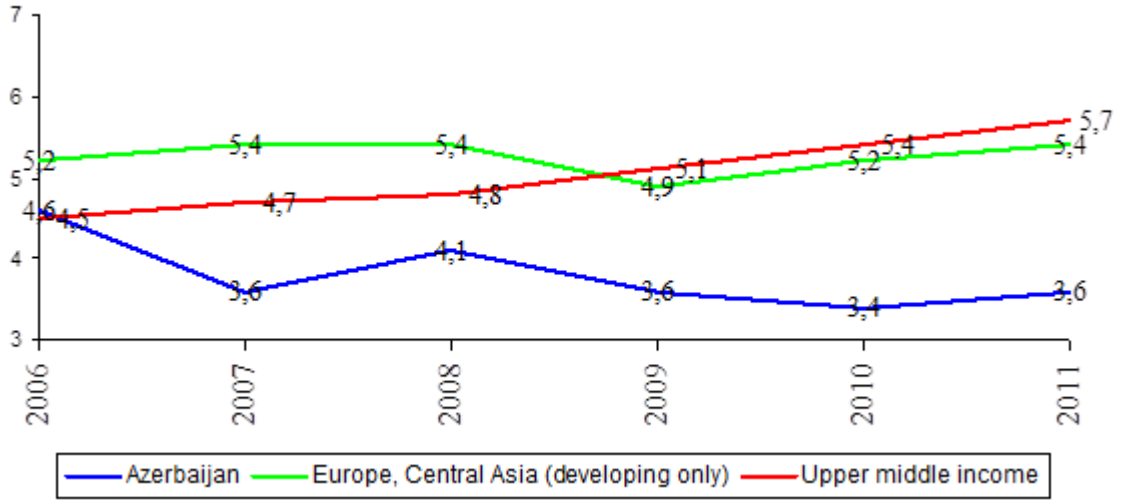


Figure 5: Emissions (metric tons per capita) Azerbaijan; Europe, Central Asia (developing only); Upper middle income. Source: Own construction according to IEA Statistics © OECD/IEA 2014 (http://www.iea.org/stats/index.asp), subject to https://www.iea.org/t&c/termsandconditions/

Despite its young age, the country managed to reshuffle and refocus on environmental-friendly industries and businesses, while engaging younger generation in awareness-building and empowering each member of its community to become the leader for local environmental action. The first ever Center for Restoration and Rehabilitation of Wild Nature in the South Caucasus was established in Azerbaijan. Children in Azerbaijan and throughout the Southern Caucasus grow up proudly learning that they live in a region which boasts nine of the world's eleven climate zones. It has more than its fair share of environmental wonders. But it also is a country and a region with serious environmental challenges, from endangered species to industrial pollution to basic issues of water supply and safety. The beginnings of a government-led environmental investment programme are beginning to be seen in Azerbaijan, with industrial clean-up, a strong National Parks project, mass tree planting, and the first moves into renewable energy. The young generation in Azerbaijan understands the difficulty and urgency of the environmental burdens of the time and shares a common passion for the environment. The Caucasian Biodiversity Summit was held at the Heydar Aliyev Center, following the initiative of IDEA (International Dialogue for Environmental Action) Public Association. The event was also joined by well-known international experts, representatives of a number of influential organizations, including the International Union for Conservation of Nature (IUCN), World Wildlife Fund (WWF), Smithson Institute, London Zoology Association and Harvard University, as well as scholars from Azerbaijan. In the recent years a lot of different projects have been implemented. The project "The Big Five of the Caucasus" providing for protection of 5 endangered animal species – brown bear, emperor eagle, wolf, gazelle and the Caucasian leopard is of special significance". IDEA participants launched a special campaign with the motto of «Young tree for Young Spirit», according to which, 300.000 trees were planted in 2012. Volunteers – students from different universities of Baku, government workers, and representatives from different organizations – have already made a huge progress and initial mass tree-planting took place on the «Greening Department 2» located on the 17th km of the highway from airport towards the city centre, in Zikh highway. Over 3 million trees were planted within the framework of the projects implemented; classes have been created at education establishments on protection of the environment. "Our primary objective is to secure rehabilitation of endangered species in the world, and their protection.

Joint works are being carried out with a number of international organizations in this direction. Azerbaijan is a member of the International Union for Conservation of Nature" [9]. The close attention of the country's leadership to environmental issues has increased the efficiency of the measures taken in this field. Major projects have been successfully implemented and continue to be fulfilled in this direction. Over the past ten years, due to the intensification of tree planting and reforestation measures the forest area has reached more than 1 million hectares, increasing from 11.4 to 11.8 % of the total territory of the country. Over the past 10 years more than 20 million different species of trees and shrubs have been planted in the areas outside the forest territories. Over the last 5 years large landscaping projects based on up-to-date methods have been implemented around the city of Baku and Absheron peninsula. 3.4 million trees and shrubs were planted on an area of 3294 hectares, with the length of drip irrigation system of about 9 kilometres. As a part of these projects more than 845,000 olive saplings have been planted in different regions over an area of 1384 hectares. It is worth mentioning that the area of these new olive plantations equals the area of all the olive groves planted throughout Azerbaijani history. We face the task of achieving the Millennium Development Goals in water management. In order to improve wastewater management, the existing large wastewater treatment plants are being modernized and new ones built and a sewer system is being laid in all the regions of the country. Based on the order of the President of the Republic of Azerbaijan «On Measures for the Protection of the Caspian Sea from pollution» the Ministry of Ecology and Natural Resources established the "environmental protection system of the Caspian Sea" consisting of 17 stations of sewage treatment plants for the cleaning of around 6400 cubic meters of wastewater daily aimed at preventing the contamination of about 100 kilometres of the coastal strip of the Absheron peninsula. Large-scale projects are also being implemented for the population's supply of drinking water and water supply systems are built in all regions of the country. Since 2007, according to the order of the President of the Republic of Azerbaijan «On some measures to improve supplies of clean drinking water» the Ministry of Ecology and Natural Resources installed water treatment modular structures aimed at providing safe drinking water to the most remote settlements in a short time; as a result, more than 400,000 people in 222 villages along the Kura and Araz rivers have been provided with clean drinking water. Work on the development of specially protected natural territory has been carried out in order to preserve the biodiversity and save the gene pool of rare species of plants and animals, with the area having doubled over the last 10 years. Currently there are 9 national parks, 11 state nature reserves and 24 state national parks with a total area of 893 thousand hectares. There was not a single national park in Azerbaijan until 2003, while today the specially protected areas form 10.3 % of the country's territory, including national parks of 3.7%. Special attention is being paid to the historic reintroduction of some species to their habitat. More than a hundred head of gazelle have been resettled in their historical habitats as part of the project. As a result of all these measures there has been a natural growth of rare species that were in danger of extinction. Progress has been achieved in the field of waste management. A modern plant for the incineration of municipal solid waste was built in Baku with the capacity of 500 thousand tons per annum together with a screening plant; in addition, the Balakhani landfill has been rehabilitated. Special attention is being paid to the management of hazardous waste. The National Centre for the management of hazardous waste was established at the Ministry of Ecology and Natural Resources and the landfill of hazardous waste was built where more than 100 thousand cubic meters of toxic mercury waste and other industrial waste, including medical waste has been disposed of. In recent years outstanding results have been achieved in Azerbaijan in the field of the mitigation of climate change. Despite the fact that Azerbaijan is not included in the group of Annex 1 of the United Nations Framework Convention on Climate Change (i.e. the country didn't take quantitative commitments to reduce waste causing a thermal effect) and these wastes in Azerbaijan constitute a very small part of the world's waste,

in the period after Kyoto concrete measures have been taken aimed at reducing waste; as a result, despite the rapid development of the economy, this waste has been reduced from 70 million tons in 1990 to 50± 2, 5 million tons per year since 2005.

4. WATER GOVERNANCE AND REGULATION

Improvement of the water supply in Azerbaijan is another important infrastructure area required investment. Poor water management, heavy losses in the four major pipelines and industrial pollution, and lack of wastewater treatment/sewage plants, particularly in the Absheron peninsula, offer important opportunities for investors. Since 1887 Baku's main source of water has been the Kura River, delivered by barges and steamers. But even then when the environment was far less polluted than it is today. Filtered Kura water was of a poor quality. The increasingly polluted water of the Kura river, is one of the main sources of Baku's water supply. The amount of total mineralisation in the water intake region is 1 – 1.2 h/l; the content of chloride, sulphates, phenols, fatty acids, petroleum products, heavy metals and other harmful substances well exceeds maximum admissible standards. There are, however, still supporters of the use of Kura water through the Mingechaur reservoir, where the mechanical impurity ration is less, but the heavy metal content and other impurities exceeds admissible standards. Kura water can be used only for industrial and irrigational purposes [5. p.8]. The main law on water supply and efficient use of water resources in Azerbaijan Republic concludes "Developing draft version of MCLNS standards for enterprises applying technical standards and tolerance limits of waste and recommendations on its content". State Environmental Committee, 1994; "Rules for protecting surface water sources form impure water contamination". State Committee on Environment and Control over Use of Natural Resources. Baku, 1994; "Standardizing rules for use and protection of water sources", Resolution 2006 of the Cabinet of Ministers of Azerbaijan Republic, October 15, 1988, article 8; Resolution 150 of the Cabinet of Ministers of Azerbaijan Republic on Application of rules for paid use of water in Azerbaijan Republic (1996). Rules for use of water objects for cultural and community purposes, recreation and sport purposes. Resolution 216 of the Cabinet of Ministers of Azerbaijan Republic (1998). Allowable limits of detrimental effects to fishery water bodies. Resolution of the Cabinet of Ministers of Azerbaijan Republic (1999). Rules for state control over protection and use of water bodies. Resolution 198 of the Cabinet of Ministers of Azerbaijan Republic (1998). Regulations on development and application of limits for use of water. Article 8, (1998). Council of Ministries' Decision No: 206. Resolution 122 of the Cabinet of Ministers of Azerbaijan Republic on Application of fees for use of natural resources, discharge of pollutants into environment, and on use of funds formed from these sources (1992). Regulations on processing, preparation, submission, state expertise, approval and application of systems for comprehensive use and protection of water resources – Article 8 (1998), The Cabinet of Ministers Resolution 206. Radiation Safety Norms QN 2.6.1.054-90 (NRB-90); State Standard 2874-82. Drinking Water. Hygienic Requirements and Water Quality Control; SNIP (Construction Norms and Regulations): For water treatment plants: SNIP 2.04.02-84; State Construction Committee, 1985 - For waste water treatment plants: SNIP 2.04.03-85; State Construction Committee, 1985. Resolution of the Cabinet of Ministers of Azerbaijan Republic on approval of norms for maximum concentration limits of dangerous substances in air, soil and surface water bodies. 2000. The main legislation relevant to EIA in Azerbaijan is given in Table 2. The Law states main principles of preservation of nature, rights and obligations of government, public institutions and citizens in this area; determines objectives of users of nature in conducting environmental monitoring, term of "ecological insurance" for dangerous activities, and establishes volunteer and compulsory environmental audit of economic activities. Basic responsibilities for violation of its requirements have also been formulated.

Legislative Acts	Year adopted
Sanitarian-epidemiological Safety Law	1992
Radioactive Wastes Law	1994
Radiation Safety of Population Law	1997
Water Code	1997
Industrial and Domestic Wastes Law	1998
Environmental Protection Law	1999
Soil Code	1999
Environmental Safety Law	1999
Specially Protected Natural Areas and Objects Law	2000
Soil Productivity Law	2000
Protection of Atmosphere Law	2001

Table 2: Main environmental laws. Source: own construction according to Ministry of Environment and Natural Resources of Azerbaijan

The law establishes basic standards of environmental quality, environmental requirements for economic activities, and sets requirement for state and local environmental monitoring. Quality of environment is included in environmental standards: Maximum concentration limit of noxious substances (MCLNS) in environment; Tolerance limits of noxious substances discharged to the environment; Levels of radiation safety; Sanitary-hygienic norms and standards. Violation of above-mentioned norms and requirements can result in termination or restriction of business activity. The main goals and objectives of State Ecological Expertise (SEE) and Public Ecological Expertise (PEE) are included in the Environmental Protection Law and includes assessment and approval of EIAs and their role in environmental and construction permitting. Implementation of recommendations of State Ecological Expertise is compulsory. Public opinion is necessary for making optional or alternative decisions, but different from environmental expertise (EE) and SEE recommendations, this is informative and suggestive. Azerbaijan Republic is a member of international organizations on environment and standardization. Partnership and Cooperation Agreement (PCA) between European Union member countries and Azerbaijan (signed on April 22, 1996 in Luxemburg) became effective from June 22, 1999, which indicates high level of cooperation between the two sides. According to article 50 of this agreement, Azerbaijan should attempt to "Promote use of technical rules of the Union in this area and application of European standards and compliance evaluation methods" within "Cooperation in the area of standards and compliance evaluation". Under article 50 of the Agreement - "Environment" Azerbaijan has taken commitment to "Improve national legislation on the basis of European standards". European Commission recommendation on involving South Caucasus countries in European Neighbourhood Policy (ENP) was confirmed in Brussels Summit of heads of states and governments of European Union countries held on 17-18 June, 2004. Within the framework of European Neighbourhood Policy "European Union - Azerbaijan Joint Plan of Actions" was signed in 2006. The following are recommended to Azerbaijan in this document: Integrating into EU and international legislation and management practices in the area of standards, technical regulations and evaluation of compliance; Improving procedures and institutes for evaluating factors affecting environment, including adopting and applying relevant laws; Preparing framework legislation and main procedures, and providing the planning for main environmental sectors, especially for air quality, water quality, management of wastes, protection of environment classified in national plan of actions on environment, and continuing the process pf adapting to European requirements. Complete reconstruction of water supply and sewer systems of 43 cities and towns of Azerbaijan and construction of relevant plants and networks is planned within the framework of I and II projects of National Water Supply and Sanitation Project financed by

World Bank. Suggested standards are Water Supply and Sanitation: British Standards (BS), British Water Industry Standards (BWIS), DIN Standards, ISO Standards, AWWA (American Water Works Association) Standards, European Norms (EN); Construction and electromechanical equipment: British Standards (BS), DIN Standards, ISO Standards, AWWA (American Water Works Association) Standards, European Norms (EN); Working projects on Waste Water Treatment Plants: ATV 301 Standards.

5. SUSTAINABLE ENERGY STRATEGY

The State Programme for the Development of the Fuel and Energy Sector (2005–2015) targets the reduction of losses and prevention of theft and the inefficient use of energy in order to cover the electric power and natural gas demands. It is stated that full payment of the cost of the electricity and natural gas consumed is one of the factors that would ensure the efficient use of these resources. The State Programme on the Use of Alternative and Renewable Sources (2004) also envisages more efficient utilisation of hydrocarbon energy sources as one of the objectives. Although the government sets the targets for an energy efficient economy, there is no law or secondary legislation specific to EE activities. Since 2009, Azerbaijan has been signatory to the International Renewable Energy Agency (IRENA) and has created the State Agency on Alternative and Renewable Energy Sources (SAARES). A national strategy on the use of alternative sources of energy and RES for the period 2012–2020 is being prepared by SAARES and by the Ministry of Industry and Energy (MIE), including an RES Law, which is expected to be published by the end of 2012. As of June 2012, SAARES has become the State Company on Alternative and Renewable Energy Sources. This will provide a mandate to develop RES projects. A state budget of $60 million has been committed to the development of RES. Hydropower is for now the most important renewable energy (RE) resource in Azerbaijan and in 2010 hydropower satisfied about 18% of the need for electricity generation. Azerbaijan has about 1000 MW of operating hydropower capacity and an additional 62 MW of planned hydropower capacity. Although there has been little implementation of wind energy in Azerbaijan until the present day, interest has been growing. Its use has huge prospects in some regions of Azerbaijan. Calculations suggest that the Republic of Azerbaijan has the economically feasible potential to produce about 800 MW of wind power. The main potential is in the southeast around the Caspian coast. There is also competition with tourism development. The estimates of the solar, biomass and geothermal potential are more uncertain. Even though there is sufficient space to install solar panels, the estimated potential of 5000 MW can only be a long-term goal due to the relatively high upfront investment cost. Biomass utilization is equally unlikely without an incentive system in place. There exists only the potential of geothermal energy for heat supply, due to the relatively low temperatures of the wells. The main barrier to RES development is the low tariffs that were set in 2007 and are still valid for 2012, with 3.2 US$/kWh for small hydropower plants (HPPs) and 5.7 US$/kWh for wind. Another barrier is the lack of a legal basis for connection rules. In order to overcome the barriers to developing RES in Azerbaijan two projects are relevant. The project for preparation and implementation of an action plan for RE and EE will be undertaken by the Khazar Consulting Agency. This project is ongoing on the part of SAARES in co-operation with the International Academy of Eco energy. Azerbaijan is interested in finding solutions to the problems regarding environmental protection and the rational utilisation of natural resources. In support of Azerbaijan's environmental protection goals, a number of important laws, legal documents and state programmes have been developed and approved in order to improve the ecological situation in the country. There are two gross indicators of progress. First, the reliability of power supplies has improved, leading to a flow of funds to the power sector in Azerbaijan. Second, a 90% collection rate of the electricity bills has been achieved. This happened after many years of significant problems, when transmission and distribution

companies were unable to collect bills and consequently had insufficient funds to pay for the generated electricity. The three priority areas for development in the energy sector of Azerbaijan are identified as follows: rehabilitation of power grid for improvement of power supply quality and loss reduction; development of renewable energy; improvement of demand-side EE and energy conservation'. The main objective of the Azerbaijani Government in the field of energy has been to become self-sufficient in terms of meeting the energy demand. This objective has been achieved for oil since 1998 and for gas since 2007. Moreover, in addition to committed exports, there is currently an overcapacity of 6 billion m^3 of gas that could be exported to Europe and this is expected to increase to 10 billion m^3 by 2017. According to Action Plan 2011–2015 approved by the President for the implementation of the State Programme on Poverty Reduction and Sustainable Development 2008–2015 the country will begin privatisation of enterprises in the fuel and energy sector. The institutional arrangements for EE are at early stage of development in Azerbaijan. Institutional development should be informed by an understanding of the short, medium and long-term tasks to be accomplished and to which the authorities need to give early and high-level consideration. The European Bank for Reconstruction and Development (EBRD) has supported the preparation of a €165 million investment programme to modernise and upgrade AzDRES TPP (the country's largest thermal power plant (TPP)). This project has also applied for carbon credits under the clean development mechanism (CDM) and is expected to reduce CO^2 emissions by 3 million tons CO^2 eq. annually. Nevertheless, the output of gas fired power plants could be considerably reduced, by developing this RES potential, which could make the GDP growth, which is currently mainly driven by oil and gas exports, more sustainable and long lasting. International donors, the EU and the Energy Charter are strongly supportive of Azerbaijan in terms of its EE efforts; with a view to complying with concluded agreements the administration should take a more explicit and structured approach to capturing the benefits of EE for all.

6. CONCLUSION

The rapid development of all spheres of economics and human activity has led to an increasingly negative impact on the environment, including the inefficient usage of natural resources. As can be seen in many other countries, Azerbaijan is interested in finding solutions to the problems regarding environmental protection and rational utilization of natural resources. In support of Azerbaijan's environmental protection goals, a number of important laws, legal documents and state programs, all of which conform to European law requirements, have been developed and approved in order to improve the ecological situation in the country. In this regard recent years Azerbaijan could achieve important results and now there is sustainable basis for future inclusive development. As it was seen on above figure Azerbaijan between emerged economies took a worthy place and it gives look to the future with great optimism.

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IMPROVING THE COMPETITIVENESS OF NATIONAL ECONOMY AND STRENGTHENING STATE AID TO ENTREPRENEURSHIP

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ABSTRACT

The work indicates that developing the business and making improvements in this area, improving the legislative basis, domestic and foreign investments, modern technologies, attracting management experience, and using all ofit in producing high quality competitive goods are priorities of the state economic devolopment strategy. The aim of the state policy in this field is to improve the business environment and state support, to devolop relations between the state and entrepreneur, at the next stage, to creat new institutions in accordance with the requirements of market economy and to support their effective activities at the next stage.It was noted that the National Fund for Entrepreneurship Support is the first national financial institution to provide small and medium-sized businesses with preferential lending through the state budget for the establishment and development of private structures in the country. It operates under the Ministry of Economy of the Republic of Azerbaijan. As a result of changes in the normative-legal acts regulating the Fund's business, its elaborate mechanism of business have been formulated and the amount of funds allocated for issuing preferential loans from the state budget has been increased. The development of small and medium-sized businesses in Azerbaijan has particular importance in terms of diversification of the economy, increasing competitiveness, ensuring employment, meeting demand for consumer goods through local resources and ensuring economic development. Thus, when considering the share of small and medium-sized businesses in GDP and employment in developed countries, it can be concluded that transformation of small and medium-sized businesses into a major driving force in sustainable economic development in Azerbaijan is one of the main challenges ahead. The "Strategic Roadmap on the Production of Consumer Goods at the Level of Small and Medium-sized Enterprises in the Republic of Azerbaijan" has been developed as part of efforts of the country to ensure competitiveness, inclusiveness and sustainability in the country's economy.

Keywords: *Business activity, Business environment, Competitiveness, Investment, Non-oil sector, Provision of concessional loans, State support*

1. INTRODUCTION

The development of free market relations is the priority of economic policy for the Republic of Azerbaijan. Azerbaijan is implementing consistent and systematic measures for the expansion of the private sector, eliminating the obstacles to the development of small and medium-sized businesses in the country and, in general, for the creation of a viable business investment environment. The entrepreneurship development strategy is successfully implemented by the President of the Republic of Azerbaijan, Ilham Aliyev. The identified directions in the State Program are: improvement of the business environment in the country, increasing the financial provision of the entrepreneurship in the regions, establishing information data on existing potentials, development of infrastructure, promotion of entrepreneurship directed to the implementation of the state regulation, development of the state-entrepreneurship relations, improvement of mechanisms for protection of entrepreneurs' rights and extension of technical assistance to entrepreneurs are carried on.

2. THE CONCEPTION OF COMPETITIVENESS OF NATIONAL ECONOMY

Competitiveness - is the feature characterizing the degree of the meeting demand of competitiveness of the object compared to the other best similar objects. Competitiveness- is more attractiveness of price and non-price characteristics of the goods to the consumers than the competitors' goods in the available conditions of the firms. Competitiveness is determined with technical level of commodity; marketing and advertising information; compliance with the consumer's requirements, technical conditions and standards; the organization of the service, author's supervision, warranty, training of personnel from the purchaser; with the duration of the warranty, product sending (operation, manufacturing, sale); prices; with the terms of the payments; timely appearance of this commodity in a particular market; with this region's political-economic situation. This feature allows you to distinguish between high, medium, or low-power abilities. M.E. Porter points out that there are five competitive forces in the theory of "Five Forces of Competitive Model": competition amongst vendors dealing with each other; competition of substitute and price competitive commodities, the threat of new entrants to the market, the bargaining power and economic opportunities of suppliers, the bargaining power and economic opportunities of customers. (Samadzada, 2012, p.320). Also, the levels of competitiveness such as competitiveness of commodity, the competitiveness of commodity producers, the competitiveness of the country and area can be noted. At the contemporary stage of economic development, ensuring the country's competitiveness is not only a very serious problem that characterizes the positions of the country in the global market, but also the problem significantly identifying its national security. The structure of the competitiveness of each country differs considerably because none of the countries can have competition at all areas or at least in the vast majority of areas. In conclusion, countries will be able to succeed only in certain areas, as their internal conditions will be more dynamic and promising in corresponding situations. Azerbaijan has some competitive advantages compared to other countries. These advantages allow our country to take the 40th place in the global competitiveness rating and to overcome all the CIS countries. The advantages we are talking about are: a suitable economic and geographical situation; advanced transport communications system and overall production infrastructure; rich natural resources; scientific and technical potential; diversified industrial companies; high level of educated population and so on. At the same time, the following measures should be taken to raise the competitiveness of the country:

- improvement of the mechanism of stimulating the effective use of gross revenue growth with all entities for obtaining new techniques and "know-how" from high-developed countries;
- attracting investments for modernization of technology, as well as for reducing the energy-intensive and material-intensive production;
- to develop the export operations of commodities and services of national companies with the world's leading companies;
- to develop the competitiveness of transport system in the international market of transport services.

3. STRENGTHENING STATE SUPPORT FOR ENTREPRENUERSHIP IN THE REPUBLIC OF AZERBAIJAN

In terms of helping entrepreneurship, the state's complex incentive system has a distinctive set of characteristics in the different countries. Thus, for example, the goal of the incentives for entrepreneurship system in Turkey is to create the favorable economic condition for developing the goods, businesses and work types needed by the different economic regions of the country and the society. A range of economic instruments are used to perform these duties such as tax, credit, customs privileges, forgiveness of investment, insurance, etc. (Manafov, 2011, p. 142).

The National Fund for Entrepreneurship Support is the first national financial institution to provide small and medium-sized businesses with preferential lending through the state budget for the establishment and development of private structures in the republic. It operates under the Ministry of Economy. The mechanism and terms of use of funds of ANFES are defined in accordance with the "Rules on use of fund of the National Fund for the Entrepreneurship Support of the Republic of Azerbaijan" and the "Regulations on the National Fund for Entrepreneurship Support of the Republic of Azerbaijan" dated August 27, 2002. According to these documents, the National Fund's funds are distributed through authorized banks selected by the Competitive Commission created by the representatives of the Ministry of Economic Development, the Ministry of Finance and the Central Bank. Providing loans to national entrepreneurs in the national currency at the lowest interest rates (7% annually, 5% annually for media development projects), as well as the grace period for the first two-third part of the loan period and the low loan interest rate has led to excessive interest in the use of these loans in entrepreneurship subjects. By the Decree of the President of the Republic of Azerbaijan №:504 dated 2006, the activity mechanism of ANFES was changed by the creation of Supervisory Board which is the governing body of the Fund's Representative Offices in regions and Fund. In the Decree of October 7, 2009 (this Decree came into force on October 9, 2009) important measures such as further improvement of the Fund's functioning mechanism, its rights and obligations, its legislative basis and management structure, implementation of more accurate and effective control over its activities are envisaged. As a result of the amendments to the normative-legal acts governing the Fund's work, its functioning mechanism has been formulated and the amount of funds allocated to the issuance of concessional loans from the state budget has been increased. The goals and objectives of the National Fund for Entrepreneurship Support are as follows. Supporting to develop entrepreneurship, especially small and medium entrepreneurship in the Republic of Azerbaijan and to increase business activity of population and providing financial support to them:

- financing investment projects of entrepreneurship subjects in priority areas of socio-economic development of the Republic of Azerbaijan through the Fund;
- to take measures to attract financial resources to the Fund, including negotiating and making proposals on attracting loans in the financial markets;
- ensure the funds given to the Fund for the financing of entrepreneurship subjects are used effectively and designated;
- to expertise investment projects financed by the Fund;
- to give preference to the financing of investment projects for development of entrepreneurship from state programs;
- participating in the development and implementation of regional programs, promoting the necessary scientific and technical knowledge and innovations;
- to assist expansion of foreign business activity of entrepreneurship subjects, formation and development of entrepreneurship market infrastructures;
- to carry out other duties for entrepreneurship entities in accordance with the legislation.

Currently, the National Fund for Entrepreneurship Support uses services of 38 authorized credit agencies, including 30 banks, 1 non-bank credit organization and 7 credit unions, to deliver business loans to entrepreneurial subjects. In accordance with the Fund's working mechanism, entrepreneurship entities are applying to authorized lending institutions firstly for getting concessional credit at the expense of the Fund. Authorized lending institutions analyze investment projects and present them to the Fund, based on their business interests and minimum requirements and criteria for evaluation of investment projects set by the Fund no later than 10 banking days. Business entities are provided with the letter of rejection by the authorized credit agencies in 3 banking days, if their investment projects are evaluated

negatively. After signing the credit agreement with the entrepreneurship subjects on positive evaluated projects, the authorized credit organization sends an order to the Fund for allocation of loan funds. The Fund ensures the allocation of funds to authorized credit organizations within 3 banking days. Within 2 banking days, the credit organization transfers funds to the account of entrepreneurship subjects. At the end of each quarter, in the first five banking days of the next month, the Fund is informed by the authorized credit organizations about all business entities submitted the investment project. At the same time, monitoring of the use of investment project is carried out by authorized credit organization. When uncovering cases of non-use of concessional loan funds during the monitoring conducted by the Fund, the concessional loan granted to the beneficiary sub-organizations and interest debt should be transferred to the fund from the authorized credit organization, regardless of the fulfilling commitments of the entrepreneurship subjects to the organization, based on the Fund's written request. Effective organization of ANFES's work is particularly important, in the development of the private sector, strengthening the state financial support for entrepreneurship in Azerbaijan. Over 12,000 entrepreneurship subjects have been granted concessional loans amounted up to 700 million AZN during the Fund's activity. 60% of the concessional loans are given to the development of the agrarian sector (80% of which is the production and processing of agricultural products, 20% - the creation of infrastructure areas - grain storage facilities and refrigeration storage facilities stimulating the development of the field). It is planned to create about 94,000 new jobs at the expense of these loans. 80% of the concessional loans accounted for the share of the regions of the republic and 20% accounted for the share of Baku settlements. In 2009-2011, the Fund has provided 273.7 million AZN concessional loans to 160 investment projects worth 619.9 million AZN, with a total loan portfolio of 290.5 million AZN, which is particularly important for the non-oil sector of the economy. 79 of these projects were commissioned, and construction and installation works were carried out on other 81 investment projects. Taking into consideration the traditions of Baku settlements, natural climatic conditions in accordance with the "State program on the socio-economic development of Baku and its settlements in 2011-2013", the Fund has carried out investment projects for accelerating the development of entrepreneurship and the improvement of living standards of the population in settlements. In order to ensure transparency and to get more information about the given concessional loans to entrepreneurship development, Annual Reports of the National Fund for Entrepreneurship Support are published in Azerbaijani and English languages, financial statements are audited by the international auditing firm, regularly updated website (www.anfes.gov.az) operates. "Taking into account Article 109, paragraph 32, of the Constitution of the Republic of Azerbaijan, for the improvement of the mechanism of support of entrepreneurship development, creation of new production, processing and infrastructure facilities based on innovative technologies in the non-oil sector, financing export operations, acceleration of investments into the real sector and expanding access of economic entities to financial resources, On August 1, 2018 President Ilham Aliyev signed a decree on the abolition of the National Fund for Entrepreneurship Support. (Article 109, Powers of the President of the Republic of Azerbaijan, 1995) Based on the fund, under the Ministry of Economy of the Republic of Azerbaijan, the Azerbaijan Republic's Entrepreneurship Development Fund has been established as the legal entity. The charter capital of the Fund is 1 094 254 581 (one billion ninety four million two hundred fifty four thousand five hundred eighty one) AZN and is formed by the properties allocated to it, as well as the funds allocated from the state budget. The reorganization or liquidation of the Fund shall be carried out by the President of the Republic of Azerbaijan. The World Bank's Doing Business report, the 2016 Doing Business report, explains many useful information: Azerbaijan is in a satisfactory position on indicators such as starting a business, registering a property, protecting investors' rights, paying taxes, and executing contracts.

These findings show that due to the implemented measures, including the recent orders of the President of the country, reforms in many areas of Azerbaijan are carried out in accordance with world standards. Although Azerbaijan is ahead of most of the post-Soviet countries, the initiatives related to strengthening the business environment can be improved by starting the review of the following areas: lease payments for construction, connecting to power supply networks, obtaining loans, foreign trade and closure of company. These areas, which will contribute to the development of the private sector, are based on certain rules and provisions and these issues are detailed in the "Strategic Road Map on the Production of Consumer Goods at the Level of Small and Medium Enterprises in the Republic of Azerbaijan". Increased attention to ease in business facilitation in Azerbaijan can accomplish current reforms in supporting economic development. In this regard, an appropriate Commission was set up based on the Order of the President of the country "On Additional Measures to Increase Entrepreneurship Enhancement in the Republic of Azerbaijan and Further Improvement of Our Country's position in International Ratings" dated July 13, 2016 in order to explore additional reform opportunities and measures to be taken in this area. The recommendations of this Commission may be very important for strengthening the overall objective of targeted economic development for professional tactical movements. International ratings play a useful role in identifying priorities for development goals and should be viewed as an indicator of progress, not just a goal. Improving the Statistics Infrastructure, the purposeful economic reforms are being carried out in order to create an environment that promotes entrepreneurship development in Azerbaijan and to improve the business environment. In order to implement economic reforms in parallel, the possible measures are constantly being considered and developed for removing rules and obstacles that have a negative impact on the business environment in the country.

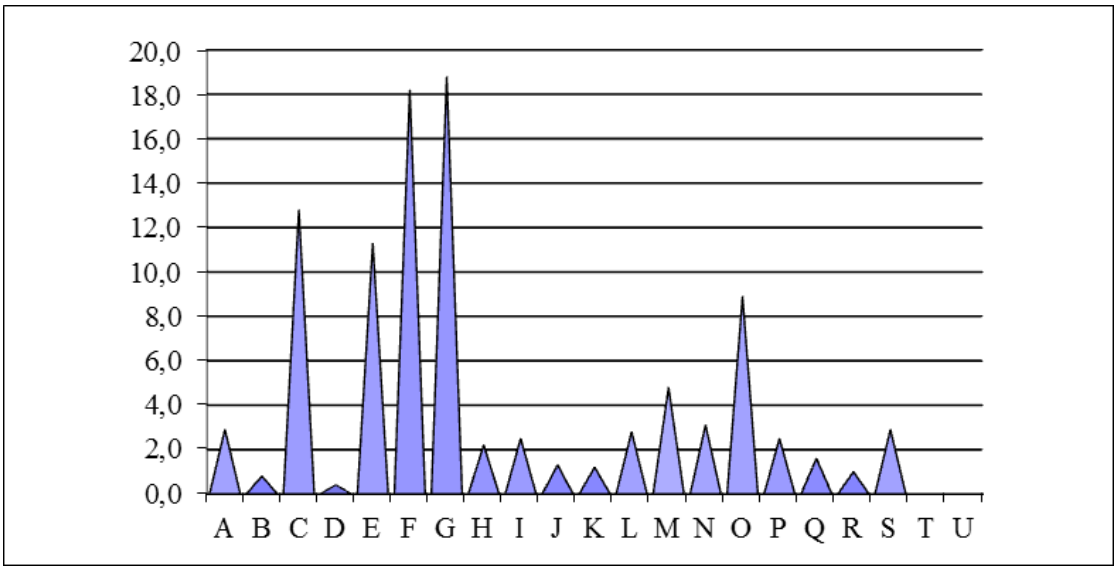


Figure 1: The distribution of the permanent jobs created by the legal entities during the first nine months of 2018, according to the economic activity types, (by percentage)

A Agriculture, forestry and fishing
B Mining industry
C Processing industry
D Electric power, gas and steam production, distribution and supply
E Water supply, waste cleaning and production
F Construction
G Trading; repairment of vehicles

H Transportation and storage
I Placement of tourists and public catering
J Information and communication
K Financial and insurance activities
L Real Estate Operations
M Occupational, scientific and technical activities
N Providing administrative and auxiliary services
O Public administration and defense; social security
P Education
Q Health and social services
R Activities in the field of leisure, entertainment and art
S Providing services in other areas
T Activities of households; activities related to goods and services produced by households for personal consumption
U Activities of organizations with the right to immunity

NOTE: Small and medium-sized entrepreneurship subjects have been identified in accordance with the criteria of large, medium and small entrepreneurship approved by the Cabinet of Ministers of the Republic of Azerbaijan dated June 5, 2015, No 215. Small sized entrepreneurs are businesses with average 25 employees and annual income up to 200,000 AZN. Medium sized entrepreneurs are businesses with average 25 to 125 employees and with the annual income between 200,000 and 1250,000 AZN (Small Entrepreneurship in Azerbaijan, 2018). The development of small and medium-sized businesses in Azerbaijan is of particular importance in terms of diversification of the economy, increasing competitiveness, ensuring employment, meeting demand for consumer goods through local resources and ensuring economic development. Thus, when considering the share of small and medium-size enterprises in GDP and employment in developed countries, it can be concluded that transformation of small and medium-sized enterprises into main driving factor for sustainable economic development is one of the main challenges that Azerbaijan is facing. The "Strategic Road Map on the Production of Consumer Goods at the Level of Small and Medium Enterprises in the Republic of Azerbaijan" has been developed as part of the country's efforts in ensuring competitiveness, inclusiveness and sustainability in the country's economy. These measures include strategic roadmaps on national economic prospects of the Republic of Azerbaijan covering eleven different sectors of the country's economy, as well as common themes on each sector. The national economy and 11 sectors of the economy, in general 12 strategic roadmaps, have been prepared for the execution of the Order of the President of the Republic of Azerbaijan, No. 1897 of 16 March 2016 "On the approval of the main directions of the strategic road map for the main sectors of national economy and economy and the issues arise from this". The Strategic Roadmap identifies the main directions of economic reform and development in the short, medium and long term perspective in small and medium-sized enterprises. This document consists of a strategic vision until 2020, a long-term vision for the period until 2025, and a target view for the period from 2025. The document states that the development strategy and action plan for 2016-2020 will not only focus on strategic objectives and targets for the relevant period, but also identify the identified priorities and measures to be taken within those priorities for reaching the goals set in those years, and the name of the event, key and other executors, outcome indicators and specific implementation deadlines are included. (Priority 4.1., 2016, pp. 95-96) The effective implementation of these priorities in the short term will be the basis for the next steps to be implemented in the medium and long term and thus the effectiveness of the enforcement process will be ensured. The implementation of the Strategic Roadmap will be ensured through communication and collaboration with non-governmental

organizations, local and international private sector partners. The following are defined as strategic targets in order to achieve the strategic objectives set out in the Strategic Road Map for the development of small and medium-sized businesses in the country and to ensure maximum use of appropriate capacities: (Baku trend, 2016)

- Further improvement of the business environment and regulatory framework in the country in order to increase the impact of small and medium-sized businesses on GDP in the long-term perspective;
- Provision of affordable and efficient access to funding resources for the establishment of a sustainable network of small and medium-sized businesses;
- Internationalization and increasing access of small and medium-sized businesses to foreign markets in order to increase the country's currency reserves and ensure compliance of goods produced in the country with international standards;
- Increasing the supply of high quality products and services at regional markets by paying special attention to the preparation of skilled workforce and development of skills of small and medium entrepreneurship subjects;
- Promotion of innovation to increase the competitiveness of small and medium-sized businesses, strengthening research and development activities in this area. The main activity is to strengthen the financial and tax policy stimulus effectiveness, improve access to financial resources, strengthen technical and information base and optimize placement of small and medium-sized businesses on the territory, protect the internal market, develop market infrastructure, applying the principle of "one window" in obtaining the necessary documents, strengthening interaction between the subjects representing this area, and so on, by improving the legislative framework for small and medium-sized businesses in Azerbaijan. About 700 million AZN is required to achieve defined strategic goals, which will result in the creation of approximately 1 billion 260 million AZN additive value in the economy and 34,240 new jobs in 2020.

In the past period, a number of measures have been implemented to support entrepreneurship development in Azerbaijan. Thus, in accordance with the Decrees of the President of the Republic of Azerbaijan No 610 of June 24, 1997 and No. 753 of August 17, 2002, the " Small and Medium Entrepreneurship Assistance Program in the Republic of Azerbaijan (1997-2000) and "The State Program for the Development of Small and Medium Enterprises in the Republic of Azerbaijan (2002-2005)" was adopted and implemented. In addition, measures are envisaged for developing the entrepreneurship, improving the business environment and ensuring the protection of entrepreneurs' rights and legitimate interests, in the Decrees of the President of the Republic of Azerbaijan No. 3004 of August 2008 and No. 3043 of September 15, 2008, "State Program on Reliable Provision of Population with Foodstuffs in the Republic of Azerbaijan for 2008-2015", and "State Program on Poverty Reduction and Sustainable Development in the Republic of Azerbaijan in 2008-2015", also in the "State Program of Social and Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018" approved by the Decree No 118 of February 27, 2014 and "The State Program for the Development of Industry in the Republic of Azerbaijan for 2015-2020" approved by the Decree No 964 dated December 26, 2014. April 25, 2016 was established as the "Entrepreneurs Day" in Azerbaijan by the Decree of the President of the Republic of Azerbaijan dated April 21, 2016 with a view of increasing the role of entrepreneurs in strategic issues such as employment, non-oil exports, business environment development, and promotion of entrepreneurial support in society. At the same time, two years of suspension of business inspections, reductions in the in the number and payments of rents and licenses for entrepreneurial activity, simplification of leasing procedures, including continuation of works on creating e-portals in this field, also the establishment of Appeal Councils for protection of enterpreneurs' rights, applying "one

window" principle for the transportation of transit cargoes across the country, tax and customs privileges for 7 years in order to promote investment in the country, further expansion of electronic customs services for the purposes of simplifying customs procedures during import-export operations, minimizing the number of required documents and procedures, establishment of the Green Corridor and other transport systems existing in the international expertise for importing and exporting goods and vehicles through customs, the improvement of public procurement, the provision of direct responds to entrepreneurs' applications in government agencies, establishment of call centers for information and consulting services, and other activities was held. Processes in the region and around the world in the economic sphere once again highlight the deepening of cooperation and the state support for small and medium-sized businesses. Thus, in order to diversify the economy, there is a need for a number of changes in this area for the full realization of the potential of small and medium-sized businesses. Although some progress has been made to improve the legislative framework, some improvements still need to be made. Thus, the legislative framework for matters such as the private credit bureau, the movable property registry and the arrangement of collateral transactions should be improved. Priorities should be identified for broader implementation of a single approach to small and medium-sized entrepreneurship, innovation, international standards, increasing government support for researching export markets, further expanding financial support and other support mechanisms, and setting up monitoring and evaluation mechanisms for government support instruments and the development of entrepreneurship in the country should be strongly supported.

4. CONSLUSION

1. Entrepreneurship activity is the center of market economy development. It is impossible to imagine the formation of a perfect market without reaching its development. Therefore, one of the important tasks that the Azerbaijani government is facing is the issue of forming small, medium and large businesses.
2. Small and medium-sized businesses eliminate shortages in production areas, apply scientific and technical innovations more flexibly in production, and compensates paid expenditures in the shortest possible time.
3. Small and medium-sized entrepreneurship creates a robust business environment that is of particular importance to the market economy, based on the individual interests and initiatives of manufacturers, and it is impossible to imagine such a market economy without this.
4. There is strong potential and wide opportunities for the development of small and medium-sized businesses and, in general, the country's economy. In order to do this, improving the overall business environment, making the financial resources more accessible and effective, providing small and medium-sized businesses with access to local and foreign markets, and building up skilled and qualified staff are important steps to be taken.

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SUSTAINABLE DEVELOPMENT AS NATIONAL DOCTRINE: EXPERIENCE OF VIETNAM

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ABSTRACT
The paper considers the concept of sustainable development as a combination of three components - economy, society and ecology, in their unity. The implementation of the sustainable development concept in Vietnam during the period from 1992 to 2017 is analyzed. The problem of selecting indicators for monitoring and evaluating sustainable development is discussed. On the basis of quantitative and factual data, achievements are assessed and the difficulties encountered in the implementation of the sustainable development concept in Vietnam are identified. Prospective recommendations for maintaining dynamic balance between elements of the sustainable development triad are substantiated.
Keywords: *sustainable development, indicators of sustainable development, economic development, social development, environment protection*

1. INTRODUCTION

The strategy of sustainable development as an idea of a new cultural paradigm appeared at the end of the twentieth century due to the realization that evolution brought mankind into a difficult situation. This situation is characterized as follows: the consumption of natural resources is ahead of their recovery; extremely uneven resources distribution destabilizes both separate countries and the world as a whole; degradation of the natural environment takes place and irreversible negative processes are developing in the biosphere. The term “sustainable development” was first used in 1972 at the UN conference on the human environment in Stockholm. In 1992, at the UN Conference on Environment and Development in Rio de Janeiro, this term was used as the name of a new concept of all mankind existence. In the context of the UN documents, sustainable development should provide meeting the needs of the present time, while not jeopardizing the possibility of subsequent generations to meet their needs. Some researchers point out the large variety of sustainable development definitions, which constitutes several dozens, and, as Ursul (2005) notes, tends to increase. They cast doubt on the existence of a single concept, while admitting the existence of certain ideas that are widely acknowledged and declared in political decisions. (Gvishiani, 1997; Loguntsev, 2000). These researchers regard the idea of sustainable development, as a kind of "fruitful mistake", an analogue of the philosopher's stone or perpetuum mobile, and believe that, being unrealizable, it can nevertheless be highly productive (Bratersky, 2016). Currently, sustainable development is considered as a combination of three areas:

1. Economy. According to a new look at economic efficiency long-term projects, taking into account the laws of nature, are preferable compared with projects which does not take into account possible environmental consequences.
2. Ecology. The main goal of sustainable development in the field of ecology is the stability of natural and ecological systems. Ignoring the needs of ecology leads to environmental degradation and threatens the existence of all mankind.

3. Society. Achieving cultural and social stability, reducing the number of destructive conflicts is considered in conjunction with economic activity and the environment both as the main goal of development and as the means for achievement economic and ecological goals.

For traditional understanding of economic or social progress the generalization of development as growth is characteristic. The issue of growth limits was firstly raised and investigated in papers (Meadows, Meadows, Randers & Behrens, 1972; Meadows, Meadows & Randers, 1993). In contrast to stable growth, sustainable development reflects the human attitude of to the surrounding reality determined by this reality. The highest form of sustainable system organization is one in which the system is able to develop, self-regulate, self-manage, and self-improve based on the sane use of internal and available external resources (Kuvshinov, 2011). The dynamic balance of the three components listed above is the main condition for sustainable development implementation (Vasiljeva, 2012); therefore, economic development cannot be considered in isolation from social progress and the creation of a favorable ecological environment. Developing the national economy, each country faces many environmental and social problems. In order to implement sustainable development, it is necessary to focus on interactions and interrelationships in the triad "economy - ecology - society" (Kovalev, 2014). From the standpoint of sustainable development, the development of a country is not equivalent to increase in production and consumption, but above all supposes the development of a personality, citizens, and their communities. Development implies not a sharing of resources, but their multiplication due the new ways of using available resources, new technologies. Hence, wealth and well-being are not an initial condition, but a by-product, just another transmuted form of development (Bratersky, 2016). Taking into account the ongoing exacerbation of the poverty and environmental degradation problems it should be noted that the progress made within the sustainable development concept is extremely little. This confirms that in its current form, sustainable development concept can't provide the unambiguous practical results and generates three main critiques, "1) sustainable development is Western construct, perpetuating the ideological underpinnings of former approaches, 2) it focuses its efforts on the unsustainable expansion of economic growth, and 3) its broad nature creates dangerous opportunities for actors to reinterpret and mould the approach the way they see fit." (Hove, 2004, 53). Discussing the sustainable development concept, Lélé (1991) pointed out the dilemma between the urge to take strong stands on fundamental concerns and the need to gain wide political acceptance and support, characteristic for the relevant programmes of political action and social change. Lélé (1991, 618) writes that sustainable development "is being packaged as the inevitable outcome of objective scientific analysis, virtually an historical necessity, that does not contradict the deep-rooted normative notion of development as economic growth. In other words, sustainable development is an attempt to have one's cake and eat it too". The mentioned author concludes that to provide real sustainability, efforts are needed in theoretical and practical aspect - theory should work out the precise concept and the practice should suggest flexible diversity of approaches and strategies. In combination these "might lead to a society living in harmony with the environment and with itself" (Lélé, 1991, 618). The aim of this study is to assess the results achieved in Vietnam within the framework of the sustainable development concept of and formulate prospective recommendations on the model of sustainable development.

2. DATA AND METHODS

The study is based on the analysis of scientific works for the period of the sustainable development concept existence, materials of international organizations, official documents of the government of Vietnam. Methods of system and statistical analysis were used. The main source of numerical data is the website of General statistics office of Vietnam www.gso.gov.vn.

The following websites were also used as sources of numerical and factual information: www.worldbank.org – website of World Bank, knoema.ru – website of World Data Atlas, data.trendeconomy.ru – International trade statistics, vneconomy.vn – Economy of Vietnam, vietnamfinance.vn – Vietnam finance, trithucvn.net – Extension of Knowledge, vov.vn – People of Vietnam, nongnghiep.vn – Vietnam industry, www.overshootday.org – Earth Overshoot Day.

3. MAIN PROVISIONS AND RESULTS

In Vietnam, sustainable development is an important strategic goal. The harmonious combination of economic growth with social progress and environmental protection has become the basic principle of country's development (Lo Thi Hong Van, 2018). Analysis of Vietnamese economic development models from ancient times to the present confirmed the need to build a model of the country's economy based on balancing three aspects: economy, society and ecology, which in a whole coincides with the sustainable development conceptual vision (Guzikova, Lo Thi Hong Van, 2018). Evaluation of the results achieved in the three aspects listed above makes it possible to assess the balance within the Vietnamese sustainable development triad and to provide recommendations for improving the sustainable development strategy.

3.1. Indicators for Monitoring and Evaluating Sustainable Development in Vietnam

Assessing the sustainability of a country's development requires taking into account the specific conditions inherent in that country; therefore, creating a set of indicators to monitor and evaluate sustainable development in Vietnam is an important task of the government. In Vietnam, three sets of indicators are used to assess the progress of sustainable development (Tri Ngo Dang, Y Tran Van, Chi Tran Thuy and Tuan Nguyen Thanh, 2018): 1) a set of sustainable development indicators of (SDIs); 2) a set of Millennium development goals indicators (MDGIs); 3) a set of sustainable development goals indicators (SDGIs). The sustainable development indicators in Vietnam are applied in two levels: the state as a whole and the particular provinces. In (VPM, 2012) a set of indicators for monitoring and evaluating sustainable development in Vietnam was clearly established. This set of indicators was constituted by four groups of indicators: (1) general indicators, (2) economic indicators, (3) social indicators, (4) indicators of natural resources and the environment. In parallel with the UN SDIs set, since 2012, in Vietnam there are two other indicators sets: MSDGIs and SDGIs. MDGIs include 43 development targets stated by UN and 35 Vietnamese development targets. These subsets of indicators are used for two different purposes, not contradicting, but complementary to each other. In 2015, UN approved a set of SDGIs. In (VPM, 2017) the set SDGIs for Vietnam was approved which includes 17 sustainable development goals. The use of international indicators in assessing sustainable development in Vietnam meets many difficulties. In particular, their calculation is difficult because the formation of the sets of indicators is not linked with the availability of data. So, today the government assesses the characteristics, achievements and shortcomings of sustainable development in Vietnam and works out proposals for improving the development model on the basis of indicators shown in the Table 1.

Table following on the next page

Table 1: Indicators for monitoring and evaluating sustainable development

Economic	Social	Ecological
1. GDP per capita, USD 2. GDP growth rate,% 3. Structure of economy,% 4. Share of women in the agricultural sector,% 5. Share of investment in GDP,% 6. Government support for development (GSD) and foreign direct investment in total investment,% 7. R & D expenses,% of GDP 8. Government spending on education,% of GDP 9. Trade balance, USD 10. Total public debt, % of GDP. 11. Energy intensity of GDP (the ratio of annual energy consumption to GDP) 12. Share of waste recycling, %.	1. Poverty level of the population, %. 2. Unemployment rate % 3. Share of highly skilled labor,% 4. Income inequality (Gini coefficient) 5. Sex ratio at birth (the ratio of the number of boys born to the number of girls born) 6. Number of students per 10,000 inhabitants, persons 7. Number of Internet users per 100 people, persons 8. Share of population having social insurance, health insurance and unemployment insurance, % 9. Number of deaths due to road accidents per 100,000 inhabitants, persons.	1. Share of the territory covered with forests, % 2. Share of lands to be protected and for biodiversity conservation, % 3. Share of degraded lands, % 4. Reduction of groundwater, surface water, % 5. Share of recycled industrial waste,% 6. Proportion of days with of harmful substances concentration in the air exceeding the maximum admissible level, % 7. Share of solid waste collected and processed according with national standards and technical regulations, %.

3.2. Achievements and disadvantages of sustainable development in economy

Over the 20 years of Agenda XXI (from 1992 to 2012) implementing, especially the decade of the Strategic Orientation for Sustainable Development in Vietnam (from 2002 to 2012) (UNCSD, 2012) the country took advantage of opportunities, overcame many difficulties and got important achievements in economy. Economic indicators of sustainable development monitoring and evaluating are presented in Table 2.

Table following on the next page

Table 2: Economic indicators of sustainable development in Vietnam in 1992 - 2017

Indicator	1992	2002	2012	2013	2014	2015	2016	2017
GDP, $ billion	9.87	35.06	155.57	170.57	185.90	191.45	201.31	220.41
GDP growth rate,%	8.6	8.3	5.3	5.4	5.9	6.7	6.2	6.8
GDP per capita, $	139	428	1,723	1,872	2,012	2,065	2,171	2,343
Share of agriculture in GDP,%	33.94	23.03	19.22	17.96	17.7	16.99	16.31	15.34
Share of industry in GDP,%	27.26	38.49	33.56	33.19	33.21	33.25	32.71	33.33
Share of services in GDP,%	38.8	38.48	47.22	48.85	49.09	49.76	50.98	51.33
Share of women in the agricultural sector,%	-	-	6.96	40.33	42.04	46.57	47.52	-
Share of investment in GDP,%	-	-	27.24	26.58	26.83	27.58	26.08	27.43
Foreign direct investment, net inflows,% of GDP	-	-	5.37	5.19	4.94	6.1	6.13	6.29
Net profit on GSD,% of gross accumulation	-	-	9.69	8.95	8.44	5.90	5.30	9.69
Primary Income on Foreign Direct Investment, $	-	-	0	0	0	0	0	0
R & D spending,% of GDP	-	-	0.41	0.39	0.35	0.41	-	-
R & D expenses,% of government expenditures	-	-	0.6	0.61	0.64	0.83	0.77	-
Public spending on education,% of GDP	-	-	5.53	5.65	-	-	-	-
Expenditure on education,% of government spending	-	-	12.99	14.30	15.83	15.94	14.38	-
Trade Balance,$ million	-	-	5,458	3,695	6,098	1,529	5,258	6,270
Total government debt,% of GDP	-	-	48.4	51.8	55.0	57.0	59.8	58.2
GDP per unit of energy consumption, $ per kg of oil equivalent	-	-	7.41	7.94	-	-	-	-

Sources: www.gso.gov.vn. www.worldbank.org, knoema.ru

According to the data of Table 1, it can be revealed that the Vietnamese economy demonstrates positive trends. For 25 years, its scale has increased by 22 times. From 1992 to 2017, Vietnam's GDP grew from $ 9.87 billion to $ 220.41 billion.

As shown in Figure 1, GDP growth was continuous and well modeled by a linear function. The main reason for the decline in GDP growth in 2016 was the decline in agriculture due to natural disasters and difficulties in the mining industry. However, considering the development of the economy as a whole, allows saying that Vietnam has a high economic growth, constantly exceeding 5% which is an important sign of sustainable economic development. Growth of the economy is understood as the basic condition for the transforming Vietnam into a new Asian tiger. Vietnam's economy is ranked 6th in the Association of Southeast Asian Nations (ASEAN).

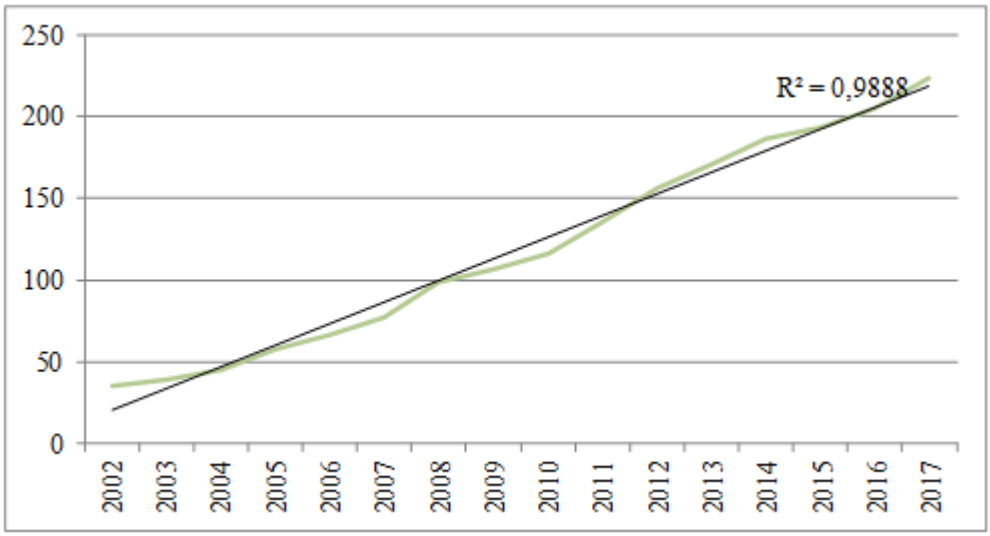


Figure 1: GDP of Vietnam in 2002 - 2017, $ billion

The growth of Vietnamese economy was based on its structural change towards industrialization and modernization. In accordance with Table 1, these changes occurred progressively. The share of industry and services in GDP increased from 66.06% in 1992 to 84.66% in 2017, the share of agriculture decreased correspondingly by 18.6%. Separately, shares of industry and services exceed the share of agriculture, which is also a sign of sustainable economic development. The structure of the economy changed towards openness and integration into the global economy. In the period 2012 - 2017 Vietnam has achieved great success in foreign trade. In 2012, for the first time in the history of the Vietnamese economy, the trade balance became positive. According to General Statistic Office of Vietnam, the share of exports in GDP increased from 73.8% in 2012 to 83.8% in 2017, the average export growth rate was very high and constituted 14.6%. Many Vietnamese products, such as rice, rubber, shoes, seafood, showed high competitiveness in the global market. Increase of share of exports in GDP is the manifestation of the openness. Vietnam has achieved significant results in calling in foreign investment. Over 6 years, foreign direct investment (FDI) and official funding for development purposes have increased. During the 27 years period from 1991 to 2017, FDI constituted 22–25% total investments and total investment capital amounted to about $ 161 billion. Calling in foreign investment has created new opportunities for economic development, in particular, the development of the country's infrastructure. Vietnamese investment abroad also started as rather small. Vietnamese enterprises have launched a number of investment projects, for example, a rubber plantation project in Laos, the development of telecommunications systems (Viettel) in Africa and Latin America, and a milk processing plant of the TN company in the Russian Federation. The very fact of investing abroad can be considered as a development compared to the previous period. From 2012 to 2016, the percentage of spending on education and R & D in government spending increased from

12.99% to 14.38% and from 0.6% to 0.77%, correspondingly. Though the share of spending on education and R & D in total government spending is not large, its growth creates incentives for economic development. Despite Vietnam's economy has achieved success in sustainable development, there are some drawbacks. Vietnam has high rates of GDP growth and per capita income but the size of economy remains small. By data of the World Bank, Vietnam's GDP in 2017 was only 31% of Indonesia's GDP. From 1992 to 2017, per capita income in Vietnam grew 17 times but it remains the lowest in the group of new Asian tigers (Malaysia, Indonesia, Thailand, Philippines). During the period from 2012 to 2017, the process of Vietnamese economy's restructuring was slow and structural disadvantages still saved. From 2012 to 2017, the share of agriculture in GDP decreased by only 3.88%, and the share of services increased by 3.76%. The share of agriculture never declined below 15%. The slow restructuring of the Vietnamese economy is the main obstacle for sustainable economic development. Vietnam is currently facing the "growth trap" problem: although the economy was growing very fast, the signs of instability take place. In the report of the Ministry of Finance published in January 2018, it was announced that Vietnam's public debt has been growing very fast, its average growth rate over the past five years equals to 18.4%, that is three times higher than the economic growth rate. The public debt of Vietnam in 2017 reached 58% of GDP. The growth rate of this indicator is the highest in the group of new Asian tigers, from 2012 to 2017 it increased by 10%. The main reasons for Vietnam's public debt growth are an increase in the state budget deficit and low investment efficiency. Foreign investment in Vietnam has played an important role in increasing production and exports. The presence of companies based on FDI creates motivation to increase the competitiveness of domestic companies. However, in addition to the positive effects of FDI, it should be noted that they also create negative consequences, such as environmental pollution and the use of outdated technologies.

3.3. Achievements and disadvantages of sustainable development in social sphere

In the triad of sustainable development, the economy plays an important role, since it "earns" for the social development and the maintenance of ecology. An analysis of the social indicators of monitoring and evaluating sustainable development (Table 3) allowed revealing an imbalance in the Vietnam sustainable development triad. For 25 years, Vietnam has received positive results in social development. The human development index increased continuously from 0.496 to 0.694, which brought Vietnam into the group of countries with a middle level of human development. Vietnam ranked 116 of 189 countries on the human development index, sharing this rank with Indonesia. From 1990 to 2017, according to (UNDP, 2018), the index of human development increased by 46.1%, life expectancy at birth increased by 6.0 years, the average period of study increased by 4.3 years, and the expected period of study increased by 4.9 years. Within the same period Vietnam's GNI per capita increased by about 324.9 % (UNDP, 2018). Increased level of human development results from the growth of the Vietnamese economy. The development of the national economy has created favorable conditions for the development of society.

Table following on the next page

Table 3: Social indicators of sustainable development in Vietnam in 1992 - 2017

Indicator	1992	2002	2012	2013	2014	2015	2016	2017
Human Development Index	0.496	0.595	0.67	0.675	0.678	0.684	0.689	0.694
Rank on human development index	102/160	109/13	-	127/186	121/18	116/188	115/188	116/189
Poverty level,%	58.1	28.9	17.2	-	13.5	-	9.8	-
Unemployment level, %	11	6.01	2.7	2.8	2.1	2.3	2.3	2.2
Gini coefficient	35.70	37	35.60	-	34.80	-	-	-
Share of highly skilled labor, %	-	-	16.6	17.9	18.2	19.9	20.6	21.4
Sex ratio at birth	1.06	1.068	1.12	1.115	1.111	1.106	1.102	1.097
Number of Internet users (million persons)	-	1.5	31.2	40.1	44.6	47.4	49.06	53.9
Number of deaths from road accidents per 100,000 inhabitants	-	-	-	-	-	24	-	-

Sources: knoema.ru, data.trendeconomy.ru

The growth of the economy in Vietnam is related with the reduction of poverty and the solution to the unemployment problem. The poverty rate decreased from 58.2% in 1992 to 9.8% in 2016. The unemployment rate decreased from 11% to 2.2%. Reducing unemployment proves that the government of the country is making great and successful efforts to solve the problem of employment. The growth of the Vietnamese economy is also related with progress in social protection and social justice. In July 2018, the number of persons participating in mandatory social insurance amounted to 13.94 million; voluntary social insurance covered 230 thousand people; unemployment insurance – 11.89 million people; health insurance – 81.69 million people. The share of the population provided by health insurance was equal to 87.2%. In 2017, the share of population having Internet access equaled to 53% and Vietnam ranked 12th in the number of Internet users in the world. Thus, the quality of life gradually improves. Along with advances in the fight against poverty and unemployment, Vietnam still faces a large gap between the rich and the poor. The Gini index in 2014 was 34.8. Although the share of skilled labor increased from 16.6% in 2012 to 21.4% in 2017, this level, as well as the competitiveness of market participants, remained low compared to other countries in the region. Gender imbalance impeded the distribution of labor and the implementation of demographic policies. The number of deaths from road accidents is big. According to the report of the National Committee for Road Safety, in 2017, 2,080 road accidents occurred throughout the country, resulting in 8,279 deaths and 17,040 injured.

3.4. Achievements and disadvantages of sustainable development in ecology

In Vietnam, environmental awareness and regulatory framework for environmental protection are gradually being created. A large amount of resources was mobilized to build a clean water supply for 76% of the urban population. The proportion of municipal solid waste collection increased from 60–70% in 2003 to 80-82% in 2013. The share of collected and treated solid waste in hospitals equals to 80% (Tri Ngo Dang, Y Tran Van, Chi Tran Thuy, Tuan Nguyen Thanh, 2018). From 1992 to 2017, the share of forest land increased from 28% to 41.45%.

These achievements in the environmental protection show that the Vietnamese government pays attention to ecology as an element of the of sustainable development triad. Developing the national economy, Vietnam faces variety of environmental problems. Rapid economic growth resulted in the shortage of non-renewable resources. Intensive exploitation and wasteful use of natural resources leads to environmental degradation. Rapid urbanization leads to over-exploitation of groundwater, pollution of surface water and air. The lack of environment management system and of civil servants experienced in environmental management can be considered the cause of the economic growth's negative impact on the environment. At the end of the XX, environmentalists began to assess the human consumption of earthly reserves. The conclusion turned out to be disappointing: from year to year mankind used to get into debt, spending the resources of the next year. The Ecological Debt Day, further named as Earth Overshoot Day, is defined by the Global Footprint Network (GFN) research organization as the day when the amount of resources used exceeds the amount that the Earth is able to recover in a year. Similar dates are calculated for the particular countries. It should be noted that in 2018, Overshoot Day in Vietnam came on December 21 and was the latest among the countries analyzed by GFN.

4. CONCLUSIONS

The concept of sustainable development in Vietnam is an officially adopted doctrine, correspondently to which development of the country has been managed since 1992. Vietnam has created a system of legal instruments on sustainable development. To monitor and evaluate sustainable development, a system of indicators is used, consistent with those used by the UN, and including indicators that take into account the specifics of the country. Practical use of this system in full requires changes in the statistical accounting system. After twenty years of implementation of the concept of sustainable development (1992-2012), determined by official documents, Vietnam got outstanding achievements in economic growth. Vietnam has moved from a group of poor countries to a group of middle-income countries. In the following six years, despite certain successes some shortcomings remained in Vietnam's economy and the problem of "growth trap" has arisen. Economic development created conditions for social development and the strengthening of environmental protection. Low competitiveness of market participants, gender imbalance, income gap between the rich and the poor became constraining factors for sustainable development. As a result, together with the growth of the economy in 25 years, Vietnam received achievements in the development of the social sphere. The most striking achievements are the low level of unemployment and a wide coverage of the population with insurance services - health and loss of job insurance. As the result of rapid economic growth Vietnam faces the shortage of non-renewable resources, but from the standpoint of ecological footprint the situation in the country is much better than in the most countries of the world. The country has taken successful measures to restore the forest and prevent pollution by solid waste. These facts may be considered as the positive result of sustainable development of the country. Implementing the sustainable development strategy in Vietnam, it is necessary to observe the principle of dynamic balance of elements of the sustainable development triad "economy - society - ecology". Thus, the prospective task of sustainable development in Vietnam becomes further development of the economy, within constraints caused by the requirements for non-deterioration of the environment and for the priority social development. Such a nature of economic development can be achieved on the basis of the following:

1. rational agriculture, aimed at the production of organic food for the population of the country and export products that are in demand in the world market, where prices for organic products tend to increase;
2. introducing "clean" industrial technologies, controlling emissions of harmful substances

and air, land and water pollution; defining rational boundaries for the development of industries that consume non-renewable and slowly renewable natural resources; conducting research and development, the development of new technologies and the creation of jobs in high-tech industries;

3. expanding and maintaining the diversity of opportunities for access to education, intellectual and creative development for the population, including those living in rural areas; promotion and promotion of rational consumption and healthy lifestyle.

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BENEFITS AND FAILURES OF ELECTRONIC SYSTEMS OF PAYMENT

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ABSTRACT

The development of modern information technology has also enabled the development of electronic payment systems. Economic entities have quickly accepted and implemented it in their business because electronic payment systems are not too demanding in the technological sense and allow business transactions to be realized in just a few seconds. Further development of business through the Internet has developed, but is still developing, a new discipline within the economy as a science called the digital economy. Likewise, the development of modern information technology is accompanied by negative side effects, criminal offenses in the field of computer crime.

Keywords: *Information technology, Digital economy, Electronic commerce, Computer criminality*

1. INTRODUCTION

Electronic payment systems keep the contours of the classical cash transactions, leaving the same idea of using credit card numbers, checks and money, but they are used in a completely different way that is dictated by the specificities of electronic communications (Šimović et al., 1999.). Each system has a somewhat different application and has its own specifics, advantages and disadvantages. It is therefore necessary to know these systems in order to prevent this form of computer crime more effectively. The discovery of a perpetrated computer offense would be considerably more difficult because it does not leave any material traces, and besides, the perpetration of such a delinquency can be considerably larger than property delicacies committed in classical ways. With the development of modern information technologies, especially computer networks, the great advantage of automating cash transactions has been noted. Instead of traveling to another continent for buying a book, this process can now be done electronically via computer networks. In the same way, you can transact between two remote banks in just a few seconds. But without the protection of money transactions and the use of special communication protocols, there is a great possibility of misuse. It must be borne in mind that perpetrators of all incidents of computer crime are persons who possess much more knowledge and intellectual abilities than perpetrators of other criminal offenses. They can intercept communications of money transactions in terms of the way they go to the data they can handle the most varied manipulations. These can be the numbers of credit cards, bank accounts, large business cash, and all other bank secrets that are currently circulating in computer networks. For these reasons, the need to protect electronic money transactions has arisen with the introduction of special communication techniques and protocols.

2. DIGITAL ECONOMY

The Internet today represents a unique model of electronic communications because there is no similar model that could be characterized by such geographic coverage. From a technical point of view, the most important feature of the internet is the extremely fast connectivity capability that allows contact with the other side in just a few seconds. For this characteristic, one can freely say that it represents a set of business opportunities that should be adapted by economic operators to be more successful in the market. Contemporary society is an information society. The new techno-economic paradigm of information-communication technologies is based on cheap information input, obtained through microelectronics and telecommunications

technology: information becomes raw material (Ćosić et al., 2012.). While the earlier information (knowledge) has been involved in the development of technology, today and technologies are involved in information - information technology products represent information processing devices, ie information that processes itself. In addition to being the most significant resource in the information society, information becomes the most important product. Innovations in the field of information-communication technologies were key to the rise of a networked economy. The most important structural effect of the influence of information-communication technologies is network or networked society. Networking at a global level has allowed access to new markets and consumers, and increased profitability of multinational and transnational corporations. The earliest and most direct users of global networks were the ones who underlined the restructuring - financial institutions and corporations in the field of state-of-the-art technology. Information networking technology has experienced a quantum leap through the development of the international infrastructure of public computer networks, which has enabled the expansion of the effective range of the market and the emergence of a digital economy. The Digital Networked Economy is a "natural" environment for a new form of money and banking. Some companies have learned much earlier about the possibilities of using the Internet for the purpose of changing business patterns and exploring the possibilities of buying and selling online (Babić et al., 2011.). Such attempts were, however, limited and of local character, except in the case of genuine innovators and leaders of electronic business, which soon became the most obvious examples of the development of new business models. Web sites become much more intuitive by nature, creating a collaboration and communication platform that largely exceeds the one-way flow of information. At the center of corporate thinking, faster and cheaper communications with end-users are offered, offering special forms for ordering products, initiating business events electronically. The use of the site becomes easier, the methods of navigation and search of data are more advanced, and companies connect with customers, partners and suppliers. Intuitive business applications are expanding rapidly to complement traditional and promote additional electronic business channels. Applying advanced web tools and techniques irreversibly changes the relatively "primitive" electronic commerce web pages, and influences the development of new sales channels and expanding end-user relationships. The term e-commerce becomes a synonym for purchasing and selling processes via the Internet, which eliminates the time and physical barriers to business that exists in the traditional trading system.

3. DATABASES

The database consists of a series of data tailored to the needs of users used to obtain information. The databases we know today have had a huge impact on the development of modern IT technology. Modern IT technology has brought a number of advantages to organizing business, and most important of these are ease of use and low price of equipment. Modernly organized databases can also mean the advantage ahead of competition, which is the desire of almost every business entity. Database research and management systems are the basis for the study of information systems.

4. COMPUTER NETWORKING

Networking is a procedure that aims to provide better functionality not only for economic but also for non-business entities. The availability and flexibility of today's modern computer networks technology allows you to connect to any network on the planet from any point on the planet and get the information you want (Milosavljević et al., 2009.). Compared to the former use of network services, the prices of exploiting today's networks are lower. Computer networks are today an irreplaceable part of the business infrastructure, both small and large organizations. Knowing the technology and using the network is not just a matter of general culture.

In many segments of business, the application of computer networks can provide an advantage to organizations in the market (for example, electronic commerce enables small firms to compete on the market). The computer network is basically a set of two or more computers that are connected to a connection medium and can communicate with each other and share resources. It is used for transferring both digital and analog data, which must be adapted to appropriate transmission systems. Computer data, speech, pictures, videos can be transferred to the network, and applications on the user's side may be such as to require data transfer in real time (speech, video, etc.) or this does not have to be a condition (electronic mail, file transfer). The network consists of computers, transmission media (wires, fiber optics, air) and devices such as nodes, hubs, routers, etc. that make up the network infrastructure. Some devices, such as network cards, serve as a connection between computers and the network.

5. ELECTRONIC TRADE

A large number of Internet applications in developed electronic commerce terms are related to financial transactions - the payment of own debts and financial liabilities to creditors and the payment of receivables from their debtors (Panian, 2000.). They are very delicate and serious internet applications and operations where any mistakes are difficult to rectify, so they pay close attention in practice and work intensively on their promotion, primarily in the security sense.
The emergence of e-commerce represents a real revolution in business, not just the unprecedented superordinate technological basis based on modern telecommunications, computing, information technologies and cryptology (Milosavljević et al., 2016.). Before the age of e-commerce marketing and sales of products relied on massive unmerited marketing and workforce and input of immediate sellers. Consumers are perceived as passive targets of advertising campaigns that change the long-term customer relationship towards the given product and currently affect their buying habits. The consumer was captured by geographic and social barriers, limited to narrow local loops in search of the best price-quality relationship. Information on prices, costs and taxes could be hidden from the buyers, enabling the formation of profitable so-called.

Asymmetry information in favor of sales organizations. In this way, information asymmetry will imply any disparity in the relevant market information provided by the participants in a transaction. Looking forward, the potential for electronic commerce to gain a sizeable share of consumer and business purchases appears to be large, although it is difficult to quantify (Yun, 2005.). The developments in communications infrastructure, digital networks, and graphic-based Internet applications have made and will continue to make transmission of information much faster, cheaper, and simpler. With further technological improvements, communication shall become much more reliable and thus more applicants shall be attracted to this splendid field. This shall inevitably increase productivity and efficiency in a number of industries and businesses. Increased productivity will theoretically yield higher profit margins and a more stable economic system. Accordingly, commercial use of the Internet, more specifically, electronic commerce, should have a magnificent future.

6. TYPES OF ELECTRONIC TRADE

A lot of scientific papers have been written about the types of electronic commerce and they are not unknown. Therefore, we will not specifically describe them in detail, but we will just list them most often. These are:

1. B2C (Business to Consumer)
2. B2B (Business to Business)
3. C2C (Consumer to Consumer)
4. P2P (Peer to Peer)

5. M-Shop
6. Social networking
7. Local e-commerce

7. BUSINESS OPERATIONS

Foreign trade is a very important item in the balance of each company. Today, foreign operations can be considered as imperative. International business is exciting because it combines the science and the art of business with many other disciplines, such as economics, anthropology, geography, history, language, jurisprudence, statistics, and demography (Czinkota et al., 2011.). International business is important and necessary because economic isolationism has become impossible. Failure to become a part of the global market assures a nation of declining economic influence and a deteriorating standard of living for its citizens. Successful participation in international business, however, holds the promise of improved quality of life and a better society, even leading, some believe, to a more peaceful world.

8. COCLUDING THE CONTRACT WITH THE FOREIGN PARTNER

The foregoing has presented the legal principles relating to offer and acceptance in line with the 'classical model' of contract (Kelly et al., 2002.). As has been stated, underlying that model is the operation of the market in which individuals freely negotiate the terms on which they are to be bound. The offeror sets out terms to which he is willing to be bound and, if the offeree accepts those terms, then a contract is formed. If, however, the offeree alters the terms, then the parties reverse their roles: the former offeree now becomes the offeror and the former offeror becomes the offeree, able to accept or reject the new terms as he chooses. This process of role reversal continues until an agreement is reached or the parties decide that there are no grounds on which they can form an agreement. Thus, the classical model of contract insists that there must be a correspondence of offer and acceptance, and that any failure to match acceptance to offer will not result in a binding contract. Technical regulations setting standards for product design and performance can vary widely from country to country (Schaffer et al., 2009.). This might include safety standards for foods, pharmaceuticals, automobiles, toys, and consumer goods; flammability standards for children's clothing; fire and electrical codes; health codes; environmental standards; and rules for packaging or labeling products. Obviously, these issues are more important in international trade, where the standards are far less uniform, than in domestic commerce.

9. DIGITAL SIGNATURE

Legislation providing for electronic signatures has, essentially, been directed to provide for the authenticity of the person using the signature, although various statutes provide for additional uses, such as providing for the integrity of a message or document (Mason, 2016.). Authentication can be the process by which a person or legal entity seeks to verify the validity or genuineness of a particular piece of information. Alternatively, it can mean the formal assertion of validity, such as the signing of a certificate: we authenticate what it certifies. In certain circumstances, there may also be a need to verify the identity of an individual or legal entity, although what is meant by 'identity' will also depend on the reason for ascertaining the identity. With a cheque, the signature serves to link the name of the person printed on the cheque with the person that claims to have the authority to draw money from the account indicated on the cheque. The existence of the cheque guarantee card with a manuscript signature on the reverse serves to reinforce the link between the card and the cheque, although the signature, even if the signature on the reverse of the cheque guarantee card matches the signature on the cheque, does not necessarily identify the person signing, even if the signature on the reverse of the cheque guarantee card matches the signature on the cheque, does not necessarily identify

the person signing the cheque. In cheque cases, the printed name on a cheque is not necessarily accepted as a form of signature, although it can contribute to authenticity.

10. INFORMATIC TECHNOLOGY AND COMPUTER CRIMINALITY

In more modern times, the creation of the World Wide Web has proved to be something of a miracle (Bradley, 2006.). In one decade it has transformed the way people work, study, shop, and play, and within a generation it has changed the way people interact. It has created entire business models, new streams of revenue, and new fields of employment. The Web has made almost every piece of information you could possibly want available at the click of a button. While the printing press made it possible to mass-produce written works so they could be shared with everyone rather than only an elite few, the Web took the notion a quantum leap farther so that almost every thought that has ever been written can be retrieved in the blink of an eye. In short, the World Wide Web has changed the world. It has created new ways to conduct financial transactions, conduct research, hold an auction, and shop for a car. However, with the advent of the Web and its conveniences, a new type of crime has also emerged: cybercrime. Global computer networks have created opportunities for new forms of crime (Porobić et al., 2012.). There is a "special, sophisticated, penetrating, technically controversial, unscrupulous, obsessed, sometimes vindictive individual to whom it is difficult to stand up and even more difficult to stop". He often does not want to be alone, but he needs society as much as he needs "audience." The ease of "doing" with the cyber space gives him a sense of power and elusiveness. These feelings are without reason, because it is really difficult to find it at the moment of the act, which is, in essence, a "real" moment for its identification and capture. On the other hand, the Internet that is so vulnerable and insecure due to the huge number of users, openness and unregulated is the ideal hiding place for criminals of different types. In such an environment and with such individuals, more and more attempts are being made not only by many national law, international organizations and associations, but it also includes "private sector" and users to mitigate the negative consequences and reduce the losses caused by criminal activities. It's hard to find a facet of modern life that does not involve a computer system, at least on some level (Easttom, 2012.). Online purchases, debit cards, and automatic bill pay are standard parts of modern life. Some retailers are using computerized automatic checkout. It is even likely that you have taken a class online, and you may even be using this textbook for a class you are currently taking online. Because so much of our business is transacted online, a great deal of personal information is stored in computers. Medical records, tax records, school records, and more are all stored in computer data-bases. This leads to some very important questions:

1. How is information safeguarded?
2. What are the vulnerabilities to these systems?
3. What steps are taken to ensure that these systems and data are safe?

The timely patching of security issues is generally recognized to be critical in maintaining the operational availability, confidentiality, and integrity of the information infrastructure (Wu et al., 2013.). However, failure to keep both the operating system and application software patched is one of the most common issues identified by security and IT professionals. New patches are released daily, and it is often difficult for even experienced system administrators to keep abreast of all the new patches and ensure their proper deployment in a timely manner. Major attacks in the past few years have targeted known vulnerabilities for which patches existed before the outbreaks. Indeed, the moment a patch is released, attackers make a concerted effort to quickly reverse engineer, in days or even hours, the patch, identify the vulnerability and develop and release an exploit code. Thus, the time immediately after the release of a patch is ironically a particularly vulnerable moment for most organizations due to the time lag in

obtaining, testing, and deploying a patch. The most important European legal source for combating computer crime is the Convention on Cybercrime. According to the Convention, and according to Recommendation R (89) of the Council of Europe, the minimum catalog of computer offenses that should contain national legislation includes the following criminal offenses: computer fraud, counterfeiting of computer data, computer data or software damage, computer sabotage, unauthorized access, unauthorized reproduction of protected computer programs, unauthorized reproduction of computer fundamentals (Pavišić et al., 2012.). In addition to the above-mentioned forms of criminal offenses deemed to be included in national legislation, a non-mandatory, optional list of voters, including computer data or programs, computer espionage, unauthorized use of the computer and unauthorized use of protected computer programs, is also compiled.

11. FINANCIAL TRANSACTIONS AND COMPUTER SECURITY

Many transactions are now effected electronically (Bainbridge, 2008.). For example, by the use of automated teller machines (ATMs or cash point dispensers outside banks) and electronic fund transfers (EFTs) transactions are made between financial institutions and at the point of sale. Most organisations now exchange data electronically. For example, a large manufacturing company may order components automatically and electronically from its suppliers when stock levels reach a predetermined lower limit. Electronic data interchange (EDI) has the potential to maximise efficiency by reducing repetition and delays, increasing accuracy and permitting the maintenance of minimum stock levels by placing orders for 'just-in-time' delivery. A large proportion of the information flowing between organisations may be handled electronically, including quoting or submitting tenders for work, ordering, scheduling, invoicing and accounting. Traditionally, security has been defined as a process to prevent unauthorized access, use, alteration, theft, or physical damage to an object through maintaining high confidentiality and integrity of information about the object and making information about the object available whenever needed (Kizza, 2009.).

However, there is a common fallacy, taken for granted by many, that a perfect state of security can be achieved; they are wrong. There is nothing like a secure state of any object, tangible or not, because no such object can ever be in a perfectly secure state and still be useful. An object is secure if the process can maintain its highest intrinsic value. Since the intrinsic value of an object depends on a number of factors, both internal and external to the object during a given time frame, an object is secure if the object assumes its maximum intrinsic value under all possible conditions. The process of security, therefore, strives to maintain the maximum intrinsic value of the object at all times. While the benefits of the Internet and other forms of computer networks are streamlining financial institutions, the same institutions are often among the first institutions to be affected by Cybercrime and Cybersecurity issues due to the financial incentives as well as their strategic place in each nation's infrastructure and economy (Reich, 2008.). We must look not only at the efficiency, but also at the negative aspects of the use of technology by financial institutions. Consumers as well as businesses must be well informed about conducting transactions in the safest manner possible. The nature of the Internet is cross-border, and thus Cybercrime and Internet Security issues involving financial institutions should be made known by international organizations, regional organizations, and when there have been cross-border law enforcement collaborations in investigations, extraditions, and so forth. At present, due to the fact that law is generally written at the national (or even state level, as is the case of Identity Theft law in the U.S.), there is a need for reporting of cross-border cases in the literature if such data can be obtained from law enforcement officials by scholars.

12. CONCLUSION

The development of modern information technology has brought a number of advantages to economic entities, and they quickly adapted to emerging market conditions. Online business enabled faster and cheaper communication between parties, which are very important items in the business of every business entity. The new way of doing business is all satisfied, so new science disciplines emerged in the field of economics - the digital economy. On the other hand, the development of modern information technology has brought a series of socially unacceptable behaviors that need to be adequately sanctioned. The consequences of damage caused by computer crime can be so great that they can destroy the business of an economic entity. In order to prevent potential computer offenses, computers and computer systems need to be well-known. In addition, it is necessary to invest constantly in the security of computers and computer systems, as business transactions can only be safely done without the adverse impact of all possible forms of computer criminality.

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TERMS OF POST-SECONDARY EDUCATION MANAGEMENT

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ABSTRACT

Modern know-how is currently being transformed into a crucial factor in economic growth and competitiveness of our country. The country's economic leadership can only be achieved on the basis of modern technology and the most advanced technology in public production. The important factor of socio-economic development in modern Azerbaijan is the constant renewal and modernization of knowledge. Generation of knowledge, the main means of their collection and transmission is education, especially higher education and post-secondary education. The modern stage of development and management of education is characterized by the globalization and institutionalization of economic relations. Particular attention should be paid to the co-operation of enterprises in establishing a single educational space within the intensification of relations in the educational process. Thus, in contrast to economic entities entering into competition with each other for the consumer, it is necessary to achieve the cooperation of educational institutions, especially the higher education institutions. This, in its turn, will lead to the availability of "hands-on" solutions for all services provided by the education system and increase the quality of education. Higher education, especially after the postgraduate education, is characterized by the transition from the training of highly qualified personnel to the formation of human personality. This requires the preparation and implementation of a new educational paradigm that focuses on the formation of education, and in particular, the post-graduate education. Post-graduate vocational education is the next stage in vocational training, which enables citizens to raise their education, science and professional level on the basis of higher vocational education. Such education can be acquired at the doctoral, philatelic, adjuncture and doctoral studies of the relevant specialties created at the Higher Vocational Education Institutions and Research Institutions. Traditionally, philosophy and doctoral studies include the fourth and fifth levels of vocational education. In fact, however, the job is more complicated. Thus, in the development of the Law of Azerbaijan Republic "On Education", this stage of professional education was defined as a special area of postgraduate education. In our opinion, it would be better for this stage of education to be called "scientific education". Post-graduate professional (vocational) education realizes programs designed to train highly qualified scientific and scientific-pedagogical cadres - philosophy and doctors of sciences. Preparation of scientific and scientific-pedagogical cadres is carried out in the form of doctoral studies, dissertations, thesis of philosophy and science. Scientific and scientific-pedagogical staff training and attestation system operates in Azerbaijan. PhD degree in scientific specialties is awarded on dissertation boards as a result of open dissertation defense of researchers having higher or higher education and approved by the Supreme Attestation Commission under the President of the Republic of Azerbaijan. the name of the doctor of sciences is issued by the Higher Attestation Commission of the President of the Republic of Azerbaijan on the basis of the presentation of the specialized dissertation councils after the dissertation defense of the researcher. The main form of training of scientific-pedagogical and scientific cadres, as well as education, science and pedagogical specialties on the basis of higher vocational education, is a doctorate in scientific specialties. The preparation of philosophical doctors is carried out in accordance with the current nomenclature of scientific worker specialties for the fields of science and scientific specialties.

Keywords: *higher education, dissertation, doctorate post-graduate education, post-graduate studies*

1. INTRODUCTION

In the contemporary world, as in the leading world countries, great attention is paid to the development of education in Azerbaijan. The slogan "Education is the future of the people" by nationwide leader Heydar Aliyev today will remain very actual and up-to-date. Modern know-how that are currently being transformed into a crucial factor in economic growth and competitiveness of our country. The country's economic leadership can only be made on the basis of modern technology and the most advanced technology in public production. The important factor of socio-economic development in modern Azerbaijan is the constant renewal and modernization of knowledge. Generation of knowledge, the main means of their collection and transmission is education, especially higher education and post-secondary education. The modern stage of development and management of education is characterized by the globalization and institutionalization of economic relations. Particular attention should be paid to the co-operation of enterprises in establishing a single educational space within the intensification of relations in the educational process. Thus, in contrast to economic entities entering into competition with each other for the consumer, it is necessary to achieve the cooperation of educational institutions, especially the higher education institutions. This, in its turn, will lead to the availability of "hands-on" services for all services provided by the education system and increase the quality of education.

2. CHAPTER 2

Higher education, especially after the postgraduate education, is characterized by the transition from the training of highly qualified personnel to the formation of human personality. This requires the preparation and implementation of a new educational paradigm that focuses on the formation of education, and in particular, the post-graduate education. Post-graduate vocational education is the next stage in vocational training, which enables citizens to raise their education, science and professional level on the basis of higher vocational education. Such education can be acquired at the doctoral, philatelic, adjuncture and doctoral studies of the relevant specialties created at the Higher Vocational Education Institutions and Research Institutions. Traditionally, philosophy and doctoral studies include the fourth and fifth levels of vocational education. In fact, however, the job is more complicated. Thus, in the development of the Law of Azerbaijan Republic "On Education", this stage of professional education was defined as a special area of postgraduate education. In our opinion, it would be better for this stage of education to be called "scientific education". Post-graduate professional (vocational) education realizes programs designed to train highly qualified scientific and scientific-pedagogical cadres - philosophy and doctors of sciences. Preparation of scientific and scientific-pedagogical cadres is carried out in the form of doctoral studies, dissertations, thesis of philosophy and science. Scientific and scientific-pedagogical staff training and attestation system operates in Azerbaijan. PhD degree in scientific specialties is awarded on dissertation boards as a result of open dissertation defense of researchers having higher or higher education and approved by the Supreme Attestation Commission under the President of the Republic of Azerbaijan. the name of the doctor of sciences is issued by the Higher Attestation Commission of the President of the Republic of Azerbaijan on the basis of the presentation of the specialized dissertation councils after the dissertation defense of the researcher. The main form of training of scientific-pedagogical and scientific cadres, as well as education, science and pedagogical specialties on the basis of higher vocational education, is a doctorate in scientific specialties. The preparation of philosophical doctors is carried out in accordance with the current nomenclature of scientific worker specialties for the fields of science and scientific specialties. Today the Higher Attestation Commission under the President of the Republic of Azerbaijan has approved the nomenclature of scientific worker qualifications.

As an example, it is possible to show the nomenclature of scientific worker specialties on economics as 08.00.00:

- 08.00.01-Economic theory
- 08.00.05-Economy and management of the national economy (macroeconomics)
- 08.00.05-Finance, money circulation and credit

At present, the Commission for Higher Attestation under the President of the Republic of Azerbaijan is preparing a draft of the new nomenclature of scientific worker specialties.

3. CHAPTER 3

The educational science at the doctoral candidacy is carried out in the form of visual and correspondence forms.The doctorate should have three full-time education, and the correspondence education should not exceed four years.Education in doctoral studies is usually carried out under the guidance of a doctor of sciences, professor. The form of certification of scientific personnel is the official confirmation of the scientific specialties of the specialists, the award of scientific degrees and scientific titles. The date of granting scientific degrees coincides with the period of the first Western European Universities (12th-13th centuries). The scientific degrees and names in the Republic of Azerbaijan are issued in accordance with the relevant regulations. Granting of scientific degrees is carried out at the dissertation councils created at higher educational institutions and scientific-research institutes. The establishment of these councils is under the authority of the Supreme Attestation Commission under the President of the Republic of Azerbaijan. Scientific degrees of Doctor of Philosophy and Sciences are awarded on the specialty nomenclature of scientific workers. Scientific names are the expression of the official and scientific-social recognition of the services of the scientist, including the preparation of scientific workers, as well as the creation of educational and scientific literature. Scientific titles are also the names of a number of leading positions in higher education institutions (docent, professor) and scientific positions in scientific research institutes (eg, "scientific workers"). The status of "professor" (Latin-professor-teacher) at the high school was first defined at Oxford University in the sixteenth century. In a number of countries, professors of "Staff" (ordinar) and "non-state" (extraordinarily) professors have been established. "Associate Professor" (docent in Latin, docentis-learning) is given to persons who have one of the following minimum degrees. In the 19th century, many countries were given the task of "privat-docent" (receiving salaries from the teaching of students). One of the smaller titles of scientific names in countries that favored the French system of higher education was called "agreje" (1808). In Russia, the name "professor" begins to be introduced after the foundation of the Moscow University (1755). Until 1863 the name "associate professor" was equated to "adjunct professor".In 1863 the name "associate professor" was defined, and in 1884 the task of "privat-docent" was established. In Azerbaijan, the title "Associate Professor" and "Professor" began to be applied in 1919 with the establishment of the Baku State University. Associate Professor is the academic name given to teachers in the Higher Vocational Education Institutions. These names are given to doctors, philosophy doctors, or teachers at Higher Vocational Education institutions who have certain work experience, scientific works or specialties. Professor is the academic name given to teachers in the Higher Vocational Education Institutions. This name is given to doctors of science or to highly qualified teachers and researchers (philosophers who conduct independent training courses or philosophical doctors leading scientific research). Master (Master in Latin, Head, Head, Teacher), 1) An official in Ancient Rome; a little later, president of some secular and religious institutions in Europe; 2) Scientific degrees among bachelors and philosophers in many countries around the world. This name is given to those who have graduated from universities (or equivalent educational institutions) and who have completed the course (1-2 years), who make special

exams and defend the master's thesis. The name of the undergraduate degree is between a bachelor and a doctor of philosophy started to be given in Azerbaijan since in 1990. The system of attestation of scientific names in scientific institutions has been revised several times. Since 1986 he has been the head, leading, senior scientific worker, scientific and small scientific worker names in scientific establishments. Postgraduate studies (aspirate in Latin, try to get closer) became the main form of preparation of scientific and scientific-pedagogical cadres in professional education after higher vocational education. In Azerbaijan, postgraduate studies were organized in 1930 in higher education institutions and research institutes, and in 1934, defended candidate dissertations. Admission to the postgraduate study was carried out on a competitive basis after the relevant exams. All postgraduate students were admitted to the admission exams on history and philosophy, foreign language (English, German, French) and specialty (subject). Historical and philosophical sciences and foreign language candidates are exempt from admission exams .As a rule, they are admitted to a scientific degree only. Separating the graduate from one another, leaving the production (visual) and leaving the production (correspondence). The duration of study at the postgraduate study is three years, and four years in the interdisciplinary form. Post graduate students receive a scholarship. Postgraduate students report on the results of their scientific work at the department (lab, department) each year. When completing the postgraduate study, they must pass the examination (attestation) at the department (department or laboratory) and submit their dissertation to defense. Those who submit the dissertation work to the dissertation board established by the relevant scientific specialty have successfully completed the post graduate course. In the majority of foreign countries, post-graduate training is similarly carried out at special centers at universities, especially after the post-diploma education (graduate, licensor, and other). At the end of their education, they defend their research and receive a higher degree of academic degree (often a doctor). The doctorate is a part of the continuing education system in Azerbaijan, the highest stage of the scientific and scientific-pedagogical training process. He has been working in the former USSR since 1956. The doctorate is organized in the leading educational institutions, scientific institutions and organizations of the Higher Vocational Education System. PhD students are awarded PhD degree and those who have achieved great scientific achievements in the chosen field. Education in doctoral studies is 4 years. PhD students are given state scholarships. Return to scientific and scientific-pedagogical activity in enterprises and organizations sent by the graduates of the doctorate is legal. Admission to PhD The Higher Vocational Education is adopted on the basis of the opinion given by the relevant department at the scientific council of the enterprise or scientific organization to a detailed scientific report of the laboratory and a comprehensive review of the dissertation work. The scientific council also approves the duration of the dissertation work and the individual work plan of the doctorate.

4. CONSLUSION

To assist the doctor in conducting researches on the dissertation, a scientific consultant is assigned to the organization where he / she is prepared. In case of necessity, leading experts from other institutions and organizations may be invited to consult a doctor. The doctoral candidate annually presents to the scientific council a report on the implementation of the individual work plan. On this basis, the attestation of a doctorate is made and a decision is made to continue his / her education. During his / her doctoral studies, the doctoral candidate must complete the dissertation work and submit it to defense, including the conduct of an initial examination. During the period of study at the doctorate, both philosophy and doctors of science should publish a number of articles in a number of prestigious media. These publications must meet the requirements set out by the Higher Attestation Commission near the President of the Republic of Azerbaijan.

Scientific works on the results of research on the dissertation by philosophers and doctors of sciences should be published in open media in the following names:

- monographs and textbooks;
- articles and theses in journals and collections of scientific works;
- theses and presentations in international, republican and regional scientific-practical conferences;

The main findings of scientific research on philosophy and doctors of sciences should be published in refereed journals included in the rector of the Higher Attestation Commission under the President of the Republic of Azerbaijan. The list of periodical scientific and scientific-technical editions recommended for publishing the main results of the dissertation for the PhD and Ph.D. in Azerbaijan does not remain unchanged, but is constantly renewed and enrichedThis list is published in the Bulletin of the Higher Attestation Commission under the President of the Republic of Azerbaijan and is posted on the website of the Higher Attestation Commission. The criteria for selecting reseller journals are as follows:

- the publication should be scientific and resentful, in other words all the materials published should be carefully examined;
- the publication should be extremely well-known and accessible. As a general rule, it should be included in the Higher Attestation Commission's directory, published with a significant number of copies, and sent to the country's libraries;
- the publication must be approved and protected by the Higher Attestation Commission under the President of the Republic of Azerbaijan.

The circulation of the monograph published by the doctor should also meet certain requirements. Thus, the circulation of most monographs has a maximum of five hundred copies. We do not think it's satisfactory. Because the main purpose of the monographs is to introduce the author to the broader scientific community. Dissertation councils are established in higher educational institutions and scientific organizations recognized by the general public with their scientific achievements in the field of relevant science in accordance with the decision of the Higher Attestation Commission under the President of the Republic of Azerbaijan. Dissertation councils carry out their activity under the leadership of the Higher Attestation Commission under the President of the Republic of Azerbaijan. The commission, periodically reviewing the list of academic staff specialties, looks at the dissertation councils network and makes changes. Dissertation councils are responsible for the quality and objectivity of the examination of dissertations, as well as the perception of the decisions taken. At the same time, they must ensure that the dissertation work is in conformity with the requirements set out in the regulations on the granting of scientific degrees. Dissertation councils operate in publicity. His colleagues from the educational and scientific organizations are well informed about his meetings. During all his activities, the dissertation councils should help to create the most favorable conditions for researchers to defend their dissertations. The researcher should be allowed to get acquainted with all the materials related to the dissertation defense at the dissertation council and receive specialized assistance from the board's supervisor on matters relating to the defense of the dissertation. PhD students in philosophy and physics are the main forms of post-graduate education. Their main purpose is to develop scientific creativity of people who want to engage in scientific and pedagogical activity and prepare them for their scientific, pedagogical activity. The dissertation for the completed and defended dissertation can be submitted to the dissertation council on the relevant specialty for the final and open defense.

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THE ANALYSES OF EMPLOYMENT AND SALARY IN AGRARIAN FIELD

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ABSRACT

The adaptation of labor relations and its regulation acts as a component of state's economic policy. The purpose of the article is to have a glance at the formulation level of labor market in the republic, as well as, pay particular attention to the implementation of improvement of employment relating to the agrarian field, labor, labor sociology, investigation of scientific profile of labor relations are highlighted in the research paper of some economic scientists. The statistic indicators stipulating economic development of the Republic of Azerbaijan, labor market activities, as well as imfrinted indicators are used in the article. Considering the social importance of the problem and rational management of labor market and its regulation, a lot of measures are implemented in this field. Being the leading force of economic development the formulation and regulation of labor market is a complex process as social, demographic, psychological factors influence to the labor market. That is why the economic scientists have a long dispute for the formulation of labor market. According to the western economic theory the labor market is considered as a place where only one of the production resources is realized. This conceptual task is envisaged from 4 angels and have their own peculiarities. The reforms carried out in the republic caused to the radical changes, and dynamic economic development is provided. Some measures are implemented particularly in the provision of economic development of regions, social well fare etc. New work places, institutions and infrastructures are created for the purpose providing the populations` employment

Keywords: *agrarian, agriculture, labor market, employment, income, salary, regulation*

1. INTRODUCTION

The following conceptions have special point of view to conceptual problems on labor market in theories of west economy. Classic view is the main of neoclassic approach of conception. It means that, as all markets, price equality is the main in labor market. Thus, the main regulator is the price of labor. Price of labor is defined by salary, demand to labor and offer. This case only occurs with existence of price equality, employment or carries voluntary character. In contrast to the neoclassic, Keynesian economists consider labor market as unstable environment. From their point of view salary (according to agreement) is unchangeable. Due to decreasing of regulation role of price in this conception, government should undertake regulation function. Thus, regulation of labor relations should be regulated by scope of production but not on the basis of price model. Monetarists approaches to cost of workforce from serious structural point of view. Using for "natural" unemployment understanding the monetarists consider that, government may increase unemployment with minimum level of wages. For this purpose, government should use monetary credit means in order to regulate labor market. For the opinion of Marxists the labor market is the special. It differs from other commodity markets that, cost which appeared from labor process is passed to product cost. For this purpose, the Marxists consider that, labor market has specific features along with complaying general economic rules. So, as factor of production, it is also sold and reflects demand and offers, finally defined its market price. Activity of labor market is regulated under influence if numerous factors in real economic life. One of these factors is demographic phenomena, level of birth, growth of employed population, their gender structure and etc., but

the second is economic activity level of various ethnic groups. The third factor is migration of population. After forced movement of Azerbaijani from territories of Armenia and due to Armenian occupation problem in Garabagh and surrounding territories, officially 1 million refugees and IDP have in our Republic. These people forced changed their settlement and all of these facts reflected to labor market. The reforms executed in agrarian field is the one of the main reforms in the economy of the Republic of Azerbaijan. Codes about water, forest, land have been accepted into force in the Republic of Azerbaijan. Decreasing of poverty in the Republic of Azerbaijan and successful executing of important social-economic position in governmental programs for economic development are continued. Thus, low on employment has been improved and updated in the republic, labor right of each person confirmed in the Constitution of the Republic of Azerbaijan, steps directed to establishing of labor stocks, electron version of registration and recruiting of unemployed persons have been executed. Practice of states with regulation of labor market is learned and used their methods. One of the main directions of social- economic policy which implemented in the Republic of Azerbaijan is the development of labor market and productive use of workforce. Reforms implemented in the state caused substantial quality changes in economic field and provided dynamic economic development. Relevant events have been realized for ensuring of economic development of regions, social welfare and further improvement of living standards of population, in the field of economy and specially improvement of non- oil sector. For the purpose of ensuring labor ability of population, new work places, institutions, infrastructure objects and etc. have been established.

2. ANALYZING OF REAL SOCIAL-ECONOMIC SITUATION IN THE FIELD OF AGRICULTURE

Privatization of lands is started to realize. Peasant, farmer and other private agricultural fields have been established as the result of land reforms. Referring to indicators of 2017, we can consider that, 36,3 % of population are working in agrarian sphere.

Table 1: Development situation of agriculture in economy of Azerbaijan

	2010	2015	2017
Number of employed persons in Republic , thousand people	4329,1	4671,6	4822,1
Number of employed persons in agriculture, thousand people	1655	1698,4	1752,9
Institutions if agriculture	2043	1695	1735
State institutions in agriculture	217	180	189
Private institutions in agriculture	1533	1507	1523
Municipal property and joint ventures	-	8	23
Individual entrepreneurship	2618	1534	955
Area , thousand sq. km	86,6	86,6	86,6
Usable land areas in agriculture, thousand ha.	4766,8	4769,8	4777,5
Place of cultivation, thousand ha	842,7	1897,5	2054,7
Scope of manufactured product in agriculture , million manat	3877,7	5635,3	6580
Scope of income from sale in agriculture, thousand manat	188634,9	391801	504032
Average monthly nominal salary of persons dealing with agriculture	160,3	245,8	261,5

Source: https://www.stat.gov.az/source/agriculture/

Generally, reforms in the field of agriculture have been realized very fast relative to other CIS countries. This field is under control of private sector and state sector for 2017 consists of only 10,8%. In order to compare, we should consider that, after accepting of Land Code of the republic of Azerbaijan in 1993, 440 farmings have been established in 1994 and 4137 family members worked in these farmings. Peasant farmering has developed in 2003 and their numbers reached to 25891. In 2004 the agricultural corporations in the republic covered 33.9 % of total corporations, 54,8 % of peoples which worked in this field, 33,0 % of scope of sold product (work or service). ("Statistical Indicators of Azerbaijan" Baku. 2018). Number of physical and legal persons belonging to private field of agriculture were more than 2500 in 2017. In 2010 people dealing with agriculture covered 38,2% of total employed people, but in 2015 this indicator was 36,3%. Problems in order to meet requirement of population of the republic to agricultural products have been eliminated gradually. However in this case, increasing of living standards of employed people was not compatible with increasing of number of agriculture. It is known that, living standards is the main indicator reflecting physiological, moral and social requirements of people and their living situation. Achieving high living standard is impossible without high income, special high salary. It needs to note that, average monthly salary may be considered low yet. Because in 1995 average monthly salary of person dealing with agriculture covered 33548 manats (for the purpose of comparison 1 USD was equal to 4465 manats and this salary was 7,5 USD), this result was 43957 manats (11,3 USD) in 1998. (1 USD=3862 manats). This was 3 times lower in 1995 than in industry and 6 times less in 1998. In 2017, the average monthly nominal fee for the agricultural worker was $ 153.8 and in compare with the mining sector 11.7 times and 2.1 times lower in the processing industry. From other hand average monthly salary of people working in foreign and joint ventures are higher than people which working in agricultural field in the republic. If we refer to international experience, we will see that, 180 billion dollar of total national product in USA was in agricultural field in 1998 and importance part of this product has been manufactured in farms. 2% of employed population work in agricultural field. 10% of revenue from the US $ (36 billion USD) was generated from agricultural products. In the achievement of all these quantities, the sovereignty of the economy is indefinable. Naturally, the economy has not come to such a level of development suddenly. From the beginnings of 70s, as the result of special care of USA government income of farmers were more than other non-farmers. For example, in 1985, the average national income per capital was 29066, while the average income of the farmer families was 29,436. Our purpose for giving example from economy of USA is providing solving of problems related to agricultural institutions.

3. DIRECTIONS ON INCREASING INCOME AND SOLVING EXISTING PROBLEMS IN AGRICULTURE

According to theory, income belonging to each of the above mentioned factors is equal to amount of this factors` presence at income obtained after sale of production. Such kind of division of income may be considered fair in relation with employees as well as owners of labor resources (land, capital). But in real time, according to productivity limit theory division of incomes reaches to non-equality and this occurs because of non-equality in division of production resources. For this purpose, execution of income policy of government is necessary for decreasing of non-equality within modern democratic society. Scope (including salary) of incomes in non-sufficient competitive conditions in the market does not always reflect of production factors in manufacturing of products. The price which obtained becafuse of quality and quantity of product exported to market, purchasing capability and other such kind of factors is realized during procurement process with agreement of users and producers. Changing of level of prices in market relations are under influence of production factors and market factors.

Thus, if there is no purchasing capability, purchasers of product is increased, sale of product is delayed, in some case ritten product damaged producers. By other hand when producers export the product to market more than required or raise the prices in such case the product alsa will be out of competition and cannot ve covered sale of product. By other hand risks related to combining of capital, labor and natural resources in unique production process of commodity and service, making the decisions for managing of activity, involving of new products and technologies, defining of cooperatives and their returning may be impacted to this process. But according to researches, numerous people have been gained more comfortable areas which near to watering and transport because of non-complying principles of social fairness in realizing of agrarian reforms. And this case as well as impacts to competition in market. Changing of prices, specially prices of fertilizer, machinery and equipment, seeds and other raw materials, increasing and decreasing in state and cooperative commerce, in purchasing process with farmers impact to employees in agrarian field and some cases social-psychological effects is high more than economic. Radical economic reforms carried out in the direction of market relations in our country improve for reconstruction of all chains of economic mechanism and management and has a strong impact on all aspects of society's life. Implementation of active social policy, increasing the role of human factor, increasing the efficiency of labor resources use and solution of employment problem depend on directly these reformes. Increasing in the leading role of human factor conducting and forming the economy on new grounds require research of workforce as the main productive force of society in various aspects from new point of view of reproduction problems. Division of workforce menas distribution of participants of social production on different activities and regions. Forms of division of workforce are realized by such kind of methods that farming areas and regions are provided by labor force by their help in a certain proportion. This proportion relates to division of public product and is appeared under the influence of dominant production relationships in the current production mode. Along to this, first of all, the distribution of production occurs and consumed things are distributed depending on its distribution. As K.Marx said: “The most distinct division appears as a distribution of products and thus, far from production and will be independent against to production. But along to division of product, this division is 1) distribution of production tools and 2) according to different types of production division of society members which consisting of the further identification of that relationship (subjecting of individuals to to certain production relationships)”. Thus, division of labor force between farms and regions as production tools and financial resources is one of the main factors of the proportion existing in society. That there is no such kind of important national economy, the number of available workforce and labor resources, their quantity-quality composition are not considered in solving of this problem. Any common mistake in this area can negatively affect the development of production. During developing any farming area demand and supply of labor force and balance between them must be taken into account. It is very important in a condition that our economy is transitioning to market relations. Because in the conditions of market relations needs skilled, labor-trained workers which follows the character of the field and the nature of the production. In accordance with the nature of the work done economic relations about workforce occupation areas, farms, businesses are regulated by labor law. This law regulates the relationship between the society and the enterprise and the workforce. The interests of society and producers and entrepreneurs which is reflected in the relative distribution of the work force should ensure maximum profit of production tools and workforce distribution. Enterprises and entrepreneurs try to ensure the stability of the personnel and the integrity of the employees and the efficiency of production. In the same time workers with the capacity to work inreested in choosing labor application units which suitable for execution their requirements (labor, material, moral and social needs). Efficiency of labor force use depends on how each of these subjects relates their income.

Development of labor force and means of production make their merging process inevitable with labor division. This law acts jointly into the law about compliance of the quality of the work force with the applied production means with law about changing the labor. Material basis of division of the labor force among the types of property and economic activity and re-division consists of increasing technical arming of production and social labor productivity. Division of the workforce between economic areas and occupations is the important indicator defining the level of socio-economic development of this or that country in concrete history of development, as well as changes in the use of labor potential. At the modern stage of socio-economic development, decreasing the specific weight of workers in material production among all the workers involved in the national economy is one of the important indicator which defining the nature of changing the occupational structure of the population. Development of productive forces is observed on the one hand, with the expansion of the scope of labor application and by other hand with the increase in the use of the labor of those employed in those areas. This process is related closely with the changes taking place in the structure of the national economy and first of all changes in the occupation structure of the population, as well as consists of one of the crucial conditions for the intensification of the public recycling process. The nature of the workforce's employment level and the nature of its formation are defined by property forms on production means and the division of social work, which has historically been formed. In connection with acceleration of scientific and technical progress, deepening of the division of public labor causes the development of new areas within the traditional production areas. By this objective, causes to be employed of the able-bodied population of each country in those production areas and their separate spheres of public economy and distribution and redistribution within these areas, as well as proportionally to districts, cities and rural areas. Employment level and structure of labor force in different regions is one of the main factors describing the level of development of forces and directly impacts to change of the proportion of the national economy depending on socio-economic and demographic factors. Demographic factor means, at first of all dynamics of population, age composition, mechanical movements and so on. indicators. The effect of this factor on the employees' employment structure occurs with working properly the formation of the demand for people to participate in public production, the desire to gain family income, education, qualifications and professionalism, as well as moral enrichment and in essence, depends on the personal qualities and vital interests of the worker. Along to this, the definitive aspect is the material-constructive structure of the social production and the level of development of productive forces. In other words, the distribution of the workforce between types of ownership and economic activity and the distribution of public spheres are characterized objectively and governed by the economic development laws of the society. Quantitative and qualitative distribution of workforce and labor resources between different production areas and business spheres is reflected in the basic economic law of the society, increasing demand, saving time, increasing labor productivity and other economic laws and meets existing production method. 12 strategic roadmap has been compiled in the decree of the President of the Republic “Approval the main directions of the strategic road map for key sectors of the national economy and problems related to this” which covered total of 11 sectors of the national economy. This project, which covers short-term, medium-term and long-term, consists of developing a strategy and action plan until 2020, a long-term vision of 2025, and finally a target view that covers the period after 2025. The document covers not only development principles and targets, but also international development requirements, measures to be taken, cash investments to be attracted, and their outcomes. Implementation of selected targets for the short term will play a key role for the next generations. The private sector, as an object of economic development, will play a key role, and public investment will act as the driving force of this development process. Relevant state agencies will be responsible for implementing measures and projects envisaged in the document

[1]. Our country's rich natural resources and favorable position are one of the factors that contribute to its socio-economic progress. However, since these resources are unevenly distributed across the regions, there is a sharp contrast between the development of the regions. Even Concentration of many infrastructures, industrial zones in capital have led to the flow of people here. This negatively affected the economic development of the regions. Under these circumstances, state regulation was necessary in order to ensure regional socio-economic development. In recent years, successful policies have been implemented to improve the employment level and reduce the unemployment rate. Thus, in 2003 the State Program on Poverty Reduction and Sustainable Development was adopted. The First State Program covers 2003-2008 years and the second State Program 2008-2015 years. It is important to improve the country's macroeconomic indicators in terms of reducing unemployment. For the present time, the purpose of this administration is to provide a favorable living environment for current and future generations, to provide high welfare for the population, to create different infrastructure areas, to attract people to employment, and to reduce unemployment. The labor market reflects the main trends in employment, the mobility of the workforce, the scale and dynamics of the unemployment, and the factors that affect it, depending on the level of employment, dynamics, employment of the population, the field and demographic changes.

4. CONCLUSION

Therefore, the fall in the price of the product will notify in advance that the product will be offered in the future, but on the contrary, it will stimulate the price. It means that creation of abundance of products lies through formation of the prices by means of market factors. We believe that in market conditions it is possible to ensure production growth in the system of the agro-industrial complex on the basis of price policy pursuant to the principles of market relations. However, in our country, the state price policy should be based on the following considerations in the context of price constraints: informative function of the price; the penalty function of the price and the function of attracting the price to the production growth. It is known that profit-making prices provide the production growth. In our opinion, the attraction should be preferred. In the present case, the price and penalty functions are not fully considered. Therefore, despite the fact that a price increase may temporarily provide for an increase in production, in other cases, for example, in crisis situations, prices again do not create attractiveness.

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MENTAL ACCOUNTING: THE IMPACT OF HUMAN PSYCHOLOGY ON FINANCIAL DECISIONS

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ABSTRACT

Improving the management process requires an understanding of the new economic approach - mental accounting, ways to more effectively manage human psychology and its interaction with the environment. This paper explains the essence of the mental accounting concept in a theoretical-practical way. The psychological, economic and organizational aspects of the decisions taken by the people regarding the management have been analyzed and have led to rational and irrational decisions. The influence of psychological states, logic, knowledge, and skills on decision-making processes has been studied when people make their financial decisions. Along with the reasons for making accounting decisions, the results and problems revealed. Explaining the mechanisms of influence of interest in making financial decisions, the possibilities of balancing their psychological and economic conformity with the rational behavior of people were attracted to an investigation. Preparation of decisions affecting entrepreneurial activity has been explained in accounting stages, analysis of the opportunities given in the decision-making process and the existing problems. The psychological and organizational difficulties arising from financial decisions have been shown. The influence and attitudes of existing attitudes and relationships within the structures and deficiencies during the implementation have been identified, based on the diversity of the management system. In the research process, we conducted a survey questionnaire by focusing on various accountants' experiences and used a comparative and related analysis, summarization, grouping, and synthesis methods. The paper introduces recommendations to enhance the effectiveness of financial decision and identify the limitations of the psychological impacts on making financial decisions within the scope of the authority, law and duty commitments of the organization. In the context of the limited resources and increased need, the practical consideration suggestions were made regarding the adoption, implementation, and evaluation of financial decisions.

Keywords: *Accounting, Decision-Making, Financial, Mental Accounting, Behavior, Decision-Making, Rational Decision*

1. INTRODUCTION

Accounting is an information system that collects, keeps and processes financial and accounting data that are used by decision makers. Perhaps, we need to understand the accountability theory. In most of the management literature, accountability is placed within a context which involves a wide range of values, beliefs, attitudes, and behaviors which are important for the existence and endurance of accountability arrangements (Leclerc, 1996). Accountability is the duty to give an account for one's actions and the resulting outcome(s). On the other hand, Romzek and Dubnick (1998:6) define accountability as 'a relationship' in which an individual or agency is held to account for their performance by the authority overseeing their actions. It is a relationship between an actor and a forum (Pollit, 2003), in which the actor has an obligation to explain and to justify his or her conduct, the forum can pose questions and pass judgment, and the actor can be sanctioned.

In this conception of accountability, the actor may be an individual or an official, civil servants or an organization. Thus, the actors are motivated to use managerial accounting to make a financial decision based on their financial events. Another approach of making a decision is the mental accounting which defined as ‘‘[...] the set of cognitive, affective and social operations used by individuals or households to assess their financial activities’’ (Thaler 1999). As an actor of economic environment, individuals make a decision on different financial transactions such as selling buying, and saving. the decision is not only made by the information available on the market, but also how it perceived and passed through the cognitive filter by the individuals. Last two decades many studies were done in order to define how people cognitively describe decision outcomes (Gärling, Karlsson, Romanus, & Selart, 1997). Tahiler (1999) clarified how do people perform mental accounting operations. Mental accounting is the decision making process which is based on the perception and evaluation of the outcomes in the human brain. Mental accounting is used as a process of coding the perceived information and allocating of this type information into risk level. Shefrin and Thaler (1988, 1992; Thaler & Shefrin, 1981) similarly used mental accounting as a description of how people code and impose restrictions on monetary assets. Mental account refers the fact that people based on their risk aversion level, allocates their decision on entertainment, education, food, and investment into various blocks of their brain that results with different outcomes for the similar events. Thus, mental accounting concerns the nature of rationality and logic of decision making. However, sometimes the rationality of the decision can be affected by the social, emotional and cognitive factors that prompt the individuals to make some irrational decisions. The main goal of this paper is to examine mental accounting in order to understand the sensory and cognitive prejudices and the deviations of rational behavior in decision making process.

2. MENTAL ACCOUNTING

Mental accounting as a concept of behavioral finance established by economist Richard H. Thaler in his paper named “Mental Accounting matter” in 1999 and clarified with three main components:

1. Perception of outcomes – it captures how information are perceived, decision is made and subsequently outcomes are evaluated. The accounting system of the human brain provides information about past and new inputs to make cost benefit analyses by comparing the outcomes. The decision of the individual or an investor can be changed according to the mental account that person evaluated the event.
2. Labeling – A second component captures how source of fund and their use are labeled in the real as well as in mental accounting. It involves the assignment of activities to specific accounts. The expenditures are grouped into food, clothing, shelter and other categories and spending and consumption is sometimes labeling the decision depending on the individual's budget boundary.
3. Frequency of valuation – it concerns the frequency of mental accounting. Accounts can be balanced daily, weekly, yearly, and so on, and can be categorized narrowly or broadly. The frequency of evaluation can be too high because of the importance level of some accounts.

3. METHODOLOGY

The main objective of this research is to examine the impact of emotions on mental accounting during the decision making on financial events. To analyse this study, we conducted a survey consisting of 25 questions the result was evaluated by hypothesis. Moreover, Chi-Square test and Paired Samples T test was used to analyze the following criteria. The hypothesis testing was used by paired sample t-test:

- H_1 There is a significant relationship between the source of income and the level of anxiety at the end of the expense

- H_2 there is a significant relationship between the asset valued by consumer's brain and by seller

The hypothesis were tested by Chi-Square:

- H_1 There is a statistical link between the level of risk and marital status of participants
- H_2 There is a statistical link between the level of education and risk of participants
- H_3 There is a significant statistical relationship between the psychological influence and social status (profession) of an individual regarding the partial or single income/loss

In order to analyse the impact of financial decisions of individuals on mental accounting the similiar questiniary were designed which previosuly conducted by Pollit, (2003) Richard H. Thaler (1999), Kahneman və Tversky (1979), and M.Atik, B. Yilmaz and Y. Kose (2018) in their researches. A survey consisting of 25 questions were conducted among 95 population, including academic staff and students of UNEC Business school at Azerbaijan State Economics University (UNEC). The paper reflects the relatinship between psychological situations and feelings by the result of income/expence, making or not making risk and social status, the impact of profit and loss by the result of making financial decision.

4. ANALYSES

Figure 1 reflects: - the transactions recorded at the sub-accounts are transferred to the main accounts where financial decisions are made. By the result of wrong transaction of past made financial operations, is following with the wrong decision. Accourding to the recorded accounts, the population will make wrong financial decision in terms of in terms of similar financial operations. It is associated with the fact that, to make faster decision human brain uses shortened snippets. Thus, if there is any similar notes or events in past accounts, the new transactions will be done from the past accounts. Although the decision-making mechanism is correct, the decision will not be rational. (M. Atik, B. Yılmaz, Y.Köse, 2018).

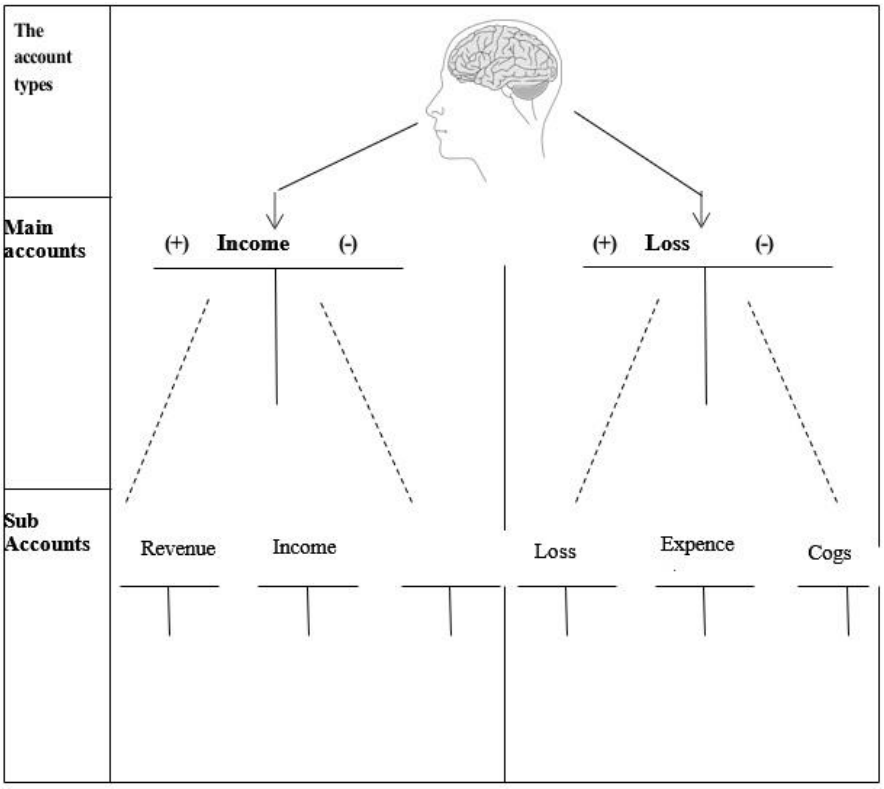


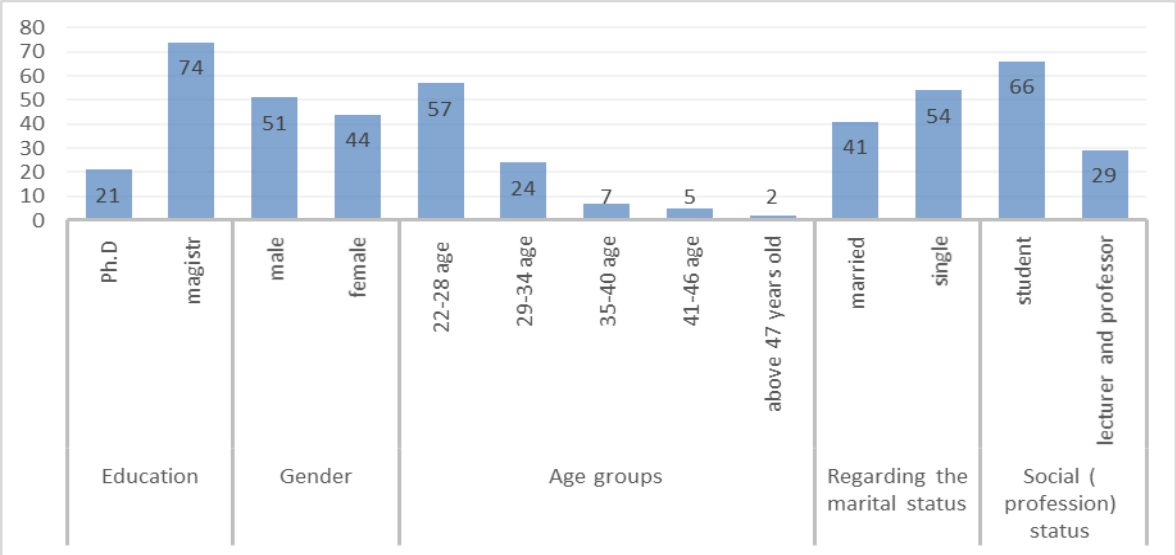
Figure 1: (Murat ATİK, Bülent YILMAZ, Yaşar KÖSE. p 717-730)

Cronbach's alpha coefficient was used in order to measure the degree of reliability of the survey. The Cronbach's alpha coefficient was calculated as 0.714. The survey can be consider reliable when alpha coefficiency measure between $0.71 \leq \alpha \geq 0.899$. So, the realibilty degree of our survey is quitly high which is between $0.71 \leq .714 \geq 0.899$. The survey questions were designed in order to measure the psy we created similiar questions in order to examine the psycological The below mentioned question is to define the psychological impact on people, regarding the partly or single income/loss however the total result is equal. Asmar has bought gold while Ali bought USD in order to appreciate cash amunt. The value of gold purchased Asmar decreased by AZN 1200 in 15 days and AZN 300 more the following 3 days. On the other hand, the value of USD purchased by Ali was decreased by AZN1500 due to the fluctuations of the economy during the month. Who is not even happier?

( ) Asmar ( ) Ali

The GAP analyses were used to asses the level of emotions in the brain based on the social status on individuals during financial decision making process. The general profile of 95 participants of the survey is divided as following below. Thus, from the total survey participants: education level : 77.89% - master, 22.11%-Ph.D, gender: male - 53.68% and female - 46.32%, and regarding the marital status: 43.16%- married and 56.84%- single, social (profession) status : 69.47%-student 30.53% - lecturer and professor, and age groups: 60%-22/28 age, 25.26%-29/34 age, 7.36%-35/40 age, 5.26%-41/46 age, 2.12%-above 47 years old.

Figure 2: The general profile of 95 participants of the survey



The first hypothesis will test the level of feeling by the result of source of money and its spending

- H_0- There is no significant correlation between the anxiety level and source and spending of money
- H_1- There is significant correlation between the anxiety level and source and spending of money

The respondednt were asked a question in associated with an expensive shoes. However, there is a thought about not buying an expensive shoes, we examined the emotional level of population by asking question about the occasion of making a cash or bonuses collected with bank cards payment.

Table 1: Paired Samples T test on level of emotions after expenses depending on the source of money

Source of money	Mean	N	Std. Deviation	df	t	Sig. (2-tailed)
bonus	4.54	95	.77	94	10.199	0.00
nəğd	3.33	95	1.08			

Table 1 express the significant correlation between the source and spending of money and the emotional level of a person. (t(94)=.769, p<.05), (t(94)=1.08, p<.05). Another hypothesis is testing to measure the level of emotion while the same assets are valued differently by consumer's brain and sellers . In our study, we used the same question from the study of Murat ATİK, Bülent YILMAZ, Yaşar KÖSE to define the is there any differences between the price of bottle of water sold in the movie theater and price of the same bottle of water that consumer would like to pay in the market located inside the shopping mall.

- H_0 - There is no significant correlation between the value of the same assets formulated in consumers mind and places whete is sold
- H_1: There is a significant correlation between the value of the same assets formulated in consumers mind and places whete is sold

Table 2: Paired T Test Results on the prices of assets and places where it sold

Place	Mean	N	Std. Deviation	df	t	Sig. (2-tailed)
Market	1.36	95	.85	94	-10.473	0.00
Movie theater	2.49	95	1.16			

According to the analyses from the table 2, there is a significant correlation between the value of the same assets and places where it sold (t(94)=.85, p<.05), (t(94)=1.16, p<.05). The other hypothesis is to test the emotional coefficiency between the marital and educational status and risk taking. We have an experiemtal question to measure the risk tkaing degree. For example, you want to make to make an investment from your savings amounted 50000 AZN. Let us assume, one of the alternative is to invest in foreign exchange (to buy USD) and observation period is 25 days. If the exchange rates for last 25 days was as given below would you still like to invest in USD or not?

Figure 3: Exchange rates for last 25

Days	USD rate (AZN)		Days	USD rate (AZN)
1. gün	1.80		1. gün	1.64
5. gün	1.72		5. gün	1.72
10. gün	1.64		10. gün	1.48
15. gün	1.55		15. gün	1.80
20. gün	1.48		20. gün	1.55
25. gün	?		25. gün	?

4.1. Marital Status vs Risk

- H_0 There is no significant correlation between the marital status and taking or not taking risk
- H_1: There is significant correlation between the marital status and taking or not taking risk

Table 3: Chi-Square test results on relatinship between marital status and risk taking coefficiency

	observed frequency	%	Estimated frequency	Asymp. Sig. (2-sided)	df
Married	41	43.16	47.5	.43	1
Single	54	56.84	47.5		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 18.13.

According to the Table 3, it is ana;ysed that, there is a statisk correlation between the marital staus and the level of taking risk of participants. When people make financial decisions, they takin into account their marital status and responsibilities, before formulating the risks in their brain. That is why in most cases married people do not have a tendency in risky decision, on the other hand, single popele have a great tendency on risky decisions.

Table 4: Chi-Square test results on relatinship between marital status and not risk taking coefficiency

	observed frequency	%	Estimated frequency	Asymp. Sig. (2-sided)	df
Married	41	43.16	47.5	.36	1
Single	54	56.84	47.5		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.83.

According to the table 4, it is found that there is no relatinship between the marital status and not taking risk.

4.2. Education vs Risk

- H_0 There is no significant correlation between the level of education and risk taking factors
- H_1 There is no significant correlation between the level of education and risk taking factors.

Table 5: Chi-Square test results on the correlation between the education level and risk taking

	observed frequency	%	Estimated frequency	Asymp. Sig. (2-sided)	df
Master	74	77.89	47.5	0.72	1
Ph.D	21	22.11	47.5		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.28.

According to the analyses resulted in table 5, there is a correlation between the level of education and risk tolerance factor. Thus, master students are more tolerant on risk while making financial decisions.

Table following on the next page

Table 6: Chi-Square test results on the correlation between the education level and not taking risk

	observed frequency	%	Estimated frequency	Asymp. Sig. (2-sided)	df
Master	74	77.89	47.5	0.89	1
Ph.D	21	22.11	47.5		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.62.

Table 6 express that, there is a significant correlation between the level of education and non tollerancy for risk. Thus, while making financnial decisions, people decide all risk factor and try to dminish it 0 level, as level of edcuation goes up. So, Ph. D students making less risk.

4.3. Separation of Gains and Expenses

Moreover, the next hypothesis that we tested in our research is to define the influence of single or partial gain or loss on people psycology

- H_0 there is no significant correlation between the ocupation and psycological impact of people regarding the partial and single gain and expense
- H_1: there is a significant correlation between the ocupation and psycological impact of people regarding the partial and single gain and expense

Table 7: Chi-Square test result on correlation between the separiton of partly gaining and ocupational status of people

	Observed frequency	%	Estimated frequency	Asymp. Sig. (2-sided)	df
Partial	57	60	47.5	0.36	1
Once payment	38	40	47.5		

Table 7 discovered that there is a significant correlation between the ocupation and psycological impact of people regarding the partial and single gain and losses. Thus, partly makin a gain has a positive effect on people. İn addition to that, without depending on the total level, the partly obtained gain also has a positive effect on people unregarding their ocupational status.

Table 8: Chi-Square test result on correlation between the separiton of partly expenses and ocupational status of people

	Observed frequency	%	Estimated frequency	Asymp. Sig. (2-sided)	df
Partial	57	60	47.5	0.45	1
Once payment	38	40	47.5		

Table 8 expreses that there is a significant correlation between the ocupational status and emotional factor of people regarding the partial and once payment of expences. Although expence is partial the total amount is equal there is a negative influence on people unregarding their ocupation.

5. CONCLUSION

Overal, in mental accounting as a process formulated by people behavioral and emotional factors, the previously codded data in human brain are used in making financial decision. All individuals can make a right or wrong decision on financial issues due to signals formulated on their brain. This trend can be followed with the logical or rational decision. The emotions or feeling has a significant role in mental accounting while making a right decision.

According to the questionary that conducted in this research, it was found that, the social status, education level, and some other factors has a postivie correlation between the emotions created in their brain and behvaiour of poeple while making financia decision. The reaserch examined the influence of risk tolerance of peeople, mkaing gain or loss on human behaviour from the mental accounting point of view. And the estimated result was found.

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ADVERTISING MANAGEMENT IN BUSINES STRATEGY SELECTION

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ABSTRACT

Any ad (no matter what format it takes) is a paid, public (meaning non-personal) announcement that is a persuasive message made by an identifiable sponsor of a company, organization, or person to existing (or potential) customers or a non-profit member base. Advertising is only one component of the overall marketing process. Advertising is that part of marketing that involves directly getting the word out about your business, product, or service to those you want to reach most. Nearly all ads will have the name of the sponsor (and very often a recognizable logo). Advertising includes the placement of an ad in such mediums as newspapers, magazines, direct mail, billboards, TV, radio, and online. Increasingly, as the world of print advertising shrinks, people are finding more creative ways to advertise, such as displaying signs on top of taxis. Advertising, because it involves so many layers—including art and design, ad placement, and frequency—is the most expensive part of all marketing plans. Public relations (because it is very labor intensive) is the second most expensive marketing component, and market research is the third most expensive. Marketing is the systematic planning, implementation, and control of a mix of activities intended to bring together buyers and sellers for the mutually advantageous exchange or transfer of products or services. For our purposes, let's use the terms buyers and sellers loosely. Even if you run a non-profit environmental organization you still have to sell people on the idea that wind is a good power source for clean energy. Think of marketing as a step-by-step process that begins with a unique selling proposition—a short compelling sentence that describes your business. This proposition (or message) then acts as a guiding theme that helps you identify target clients who are interested in what you're selling. If you think of marketing as a pie, the whole marketing pie can be divided into advertising, market research, media planning, public relations, community relations, customer support, and sales strategy. Advertising, while the most in-your-face slice of the pie, is still only one slice of the marketing pie. All marketing elements must work independently but they also must work together toward the bigger goal of one unified marketing campaign with a common message.

Keywords: *Advertising campaign, advertising strategy, main role of advertising, stages of advertising management*

1. INTRODUCTION

Marketing is a process that takes time and can involve hours of research in order for a marketing plan to be effective. Think of marketing as everything that an organization does to facilitate an exchange (or a conversation) between the company and the consumer. Of course, before you buy ad space in any format (or hire a PR pitch person) you must conduct your market research to determine who your target audience is—and the best way to reach them. It may end up that a social media platform like Instagram is the best way to reach your client base or it may end up your client is better served by penning a series of traditional print media op-ed columns. However, once your research is complete you can start developing your marketing strategies, and then all the other dominos fall into place. Advertising is the best way to communicate to the customers. Advertising helps informs the customers about the brands available in the market and the variety of products useful to them. Advertising is for everybody including kids, young and old. It is done using various media types, with different techniques and methods most suited. Four main Objectives of advertising are trial, continuity, brand switch, switching back. Advertising plays a very important role in today's age of competition.

Advertising is one thing which has become a necessity for everybody in today's day to day life, be it the producer, the traders, or the customer. Advertising is essential for some stakeholders such as customers, seller and companies and society. While identifying advertising role in society, we should consider on both economic and social role of it. For example advertising has a significant influence on product price, value, costumer's demand and our value system.

2. OBJECTIVES AND IMPORTANCE OF ADVERTISING

2.1. Main Objectives of advertising

The most important objectives of advertising are:

1. Trial
2. Continuity
3. Brand switch
4. Switching back

Let's take a look on these various types of objectives:

1. Trial: the companies which are in their introduction stage generally work for this objective. The trial objective is the one which involves convincing the customers to buy the new product introduced in the market. Here, the advertisers use flashy and attractive ads to make customers take a look on the products and purchase for trials.
2. Continuity: this objective is concerned about keeping the existing customers to stick on to the product. The advertisers here generally keep on bringing something new in the product and the advertisement so that the existing customers keep buying their products.
3. Brand switch: this objective is basically for those companies who want to attract the customers of the competitors. Here, the advertisers try to convince the customers to switch from the existing brand they are using to their product.
4. Switching back: this objective is for the companies who want their previous customers back, who have switched to their competitors. The advertisers use different ways to attract the customers back like discount sale, new advertise, some reworking done on packaging, etc.
5. Basically, advertising is a very artistic way of communicating with the customers. The main characteristics one should have to get on their objectives are great communication skills and very good convincing power.

2.2. Importance of Advertising

Advertising plays a very important role in today's age of competition. Advertising is one thing which has become a necessity for everybody in today's day to day life, be it the producer, the traders, or the customer. Advertising is an important part. Lets have a look on how and where is advertising important: Advertising is important for the customers. Just imagine television or a newspaper or a radio channel without an advertisement! No, no one can any day imagine this. Advertising plays a very important role in customers life. Customers are the people who buy the product only after they are made aware of the products available in the market. If the product is not advertised, no customer will come to know what products are available and will not buy the product even if the product was for their benefit. One more thing is that advertising helps people find the best products for themselves, their kids, and their family. When they come to know about the range of products, they are able to compare the products and buy so that they get what they desire after spending their valuable money. Thus, advertising is important for the customers. Advertising is important for the seller and companies producing the products. Yes, advertising plays very important role for the producers and the sellers of the products, because

- Advertising helps increasing sales
- Advertising helps producers or the companies to know their competitors and plan accordingly to meet up the level of competition.

- If any company wants to introduce or launch a new product in the market, advertising will make a ground for the product. Advertising helps making people aware of the new product so that the consumers come and try the product.
- Advertising helps creating goodwill for the company and gains customer loyalty after reaching a mature age.
- The demand for the product keeps on coming with the help of advertising and demand and supply become a never ending process.

Advertising is important for the society Advertising helps educating people. There are some social issues also which advertising deals with like child labour, liquor consumption, girl child killing, smoking, family planning education, etc. thus, advertising plays a very important role in society. Advertising is praised but also criticized by critics in their own ways. Advertising has many positive impacts along with its negative pictures. As the President of American Association of Advertising Agencies, John O' Toole has described advertise is something else. It is not related to studies, but it educates. It is not a journalist but gives all information and it is not an entertaining device but entertains everyone.

3. THE ECONOMIC AND SOCIAL ASPECTS OF ADVERTISING

3.1. Economic role of advertising

It is a fact that there are several economic role of advertising and the most known ones are value of product, effect on prices, effect on costumer demand and choices and effects on business cycles.

3.1.1. Value of Products

The advertised products are not always the best products in the market. There are some unadvertised products also present which are good enough. But advertising helps increase value for the products by showing the positive image of the product which in turn helps convincing customers to buy it. Advertising educates consumers about the uses of the products hence increasing its value in minds of the consumers. For e.g. mobile phones were first considered as necessity but nowadays the cell phones come with number of features which makes them mode of convenience for consumers.

3.1.2. Effect on Prices

Some advertised products do cost more than unadvertised products but the vice versa is also true. But if there is more competition in the market for those products, the prices have to come down, for e.g., canned juices from various brands. Thus some professional like chartered accountants and doctors are not allowed to advertise. But some products do not advertise much, and they don't need much of it and even their prices are high but they are still the leaders in market as they have their brand name. e.g., Porsche cars

3.1.3. Effect on consumer demand and choices

Even if the product is heavily advertised, it does not mean that the demand or say consumption rates will also increase. The product has to be different with better quality, and more variety than others. For E.g., Kellogg's cornflakes have variety of flavors with different ranges to offer for different age groups and now also for people who want to loose weight thus giving consumers different choices to select from**.**

3.1.4. Effect on business cycle

Advertising no doubt helps in employing more number of people. It increases the pay rolls of people working in this field. It helps collecting more revenues for sellers which they use for

betterment of product and services. But there are some bad effects of advertisements on business cycle also. Sometimes, consumer may find the foreign product better than going for the national brand. This will definitely effect the production which may in turn affect the GDP of the country. The economic aspects are supported by the Abundance Principle which says producing more products and services than the consumption rate which helps firstly keeping consumers informed about the options they have and secondly helps sellers for playing in healthy and competitive atmosphere with their self-interest.

3.2. Social role of advertising

There are some positive and some negative aspects of advertising on the social ground. They are as follows.

3.2.1. Deception in Advertising

The relation between the buyers and sellers is maintained if the buyers are satisfied with what they saw in advertise and what they got after buying that product. If seller shows a false or deceptive image and an exaggerated image of the product in the advertisement, then the relation between the seller and buyers can not be healthy. These problems can be overcame if the seller keep their ads clean and displays right image of the product.

3.2.2. The Subliminal Advertising

Capturing the Minds of the consumers is the main intention of these ads. The ads are made in such a way that the consumers don't even realizes that the ad has made an impact on their minds and this results in buying the product which they don't even need. But "All ads don't impress all consumers at all times", because majority of consumers buy products on basis of the price and needs.

3.2.3. Effect on Our Value System

The advertisers use puffing tactics, endorsements from celebrities, and play emotionally, which makes ads so powerful that the consumers like helpless preys buy those products.
These ads make poor people buy products that they can't afford, people picking up bad habits like smoking and drinking, and buy products just because their favorite actor endorsed that product. This affects in increased the cost of whole society and loss of values of our own selves.

3.2.4. Offensiveness of advertising

Some ads are so offensive that they are not acceptable by the buyers. For example, the ads of denim jeans showed girls wearing very less clothes and making a sex appeal. These kinds of ads are irrelevant to the actual product. Btu then there is some ads which are educative also and now accepted by people. Earlier ads giving information about birth control pills was considered offensive but now the same ads are considered educative and important. But at the last, there are some great positive aspects which help

- Development of society and growth of technologies
- Employment
- Gives choices to buyers with self interest
- Welcomes healthy competition
- Improving standard of living.
- Give information on social, economical and health issues.

4. THE ELEMENTS OF ADVERTISING STRATEGY

The importance of marketing in today's business environment is undoubtedly immense. No firm can sit back and watch their competitors take over the market.

The right time to launch a product is an essential factor to decide the fate of a new launch. Marketing strategies govern the success of products and advertising forms the subset of a marketing plan. For achieving successful marketing strategies we need to fulfill al of the elements acurately. Below we identify these elemenets or stages:

4.1. Market research

Market research is a process of the systematic collection of data, about a particular target market, competitors, customers, market trends, etc. The aim of market research is to obtain an in-depth understanding of the particular subject. Rising competition has compelled many organizations to conduct market research. Organizations may conduct market research themselves, by appointing a market research team to work on the same. Or else, they may get it done via a market research consultancy or an agency. Market research is vital for business organizations looking out for opportunities to tap the market, for firms which have come up with an improvised product and want to evaluate its demand and for companies planning to introduce their products into the market. However, before conducting market research, it's vital to have the research objectives defined. Once the objectives have been outlined, market research can be carried out in different ways: primary research and secondary research. In primary research, data is collected directly from the source. For example, if the objective of the research is to understand the demand of a particular product, then collecting feedback directly from the customer by talking to them, is called primary research. Primary research involves the collection of crucial data via interviews, surveys or focus group sessions. It's time consuming and expensive. However, it is suited for gathering specific data. Primary research can be further categorized into the qualitative and the quantitative type. Quantitative Primary Research: This type of primary research involves the collection of numerical data via surveys. The most frequently used quantitative technique is the 'market research survey'. The numerical or quantitative information obtained is then statistically analyzed. Such surveys comprise of questionnaires with closed ended questions. In a close ended question, a respondent is needed to answer by ticking one of the options given. People generally agree to cooperate, when surveys are less time-consuming. Qualitative Primary Research: This type of research involves gathering data via interviews or focus group sessions. In this type, open ended questions are included. This means the questions cannot be answered with a yes or a no. They include in-depth interviews, wherein a trained executive interviews one or more respondents. The interviewer may carry out the interview on a one to one basis, with two, triad or even 4-5 respondents. Such open ended interviews enable the researcher to receive data about the likes-dislikes, requirements, positive-negative feedback, trends and emotional motivators of the primary market. Unlike the quantitative type, this type does not comprise of a fixed set of questions. In secondary research, the analysis of information that has been collected for some other purpose, is carried out. This means, that secondary research is carried out by gathering data from sources such as government publications, libraries, internet, magazines, chambers of commerce, etc. The data required may be in the form of demographic or statistical data, set of articles or some studies. Firms can analyze their target markets, evaluate competitors, assess social, political and economic factors.

4.2. Marketing Mix Strategy

A vital part of an effective advertising campaign is to adopt the method of marketing mix strategy during the planning phase, and implementing at the right time in an ordered manner. Marketing mix involves considering various elements of marketing like product, price, promotion and place. While product, price and promotion are easier to understand, place refers to the logistics and transportation costs of goods. The marketing teams and advertising agencies make use of the variables of marketing mix, for the success of a product.

You may read more on successful marketing strategies. It is said, that 'customers are the kings' and indeed they are. The marketing departments of every firm fight tooth and nail to lure customers and increase the sales of their products. Marketing promotional methods are important and efficient marketing strategies of various companies. While millions of dollars are spent on advertising methods, promotional marketing methods are relatively less expensive and can be more effective

4.3. Promotion Strategies

There are basically two promotion strategies; the push strategy and the pull strategy. According to the push strategy, the marketers give generous discounts and benefits to the customers, so that, the sales can be increased drastically. One of the most successful strategies, the method of giving discounts is often successful for most of the firms. In the push strategy, main focus is on reducing costs of the advertising. The other strategy, the pull strategy minimizes the use of different channels and the major focus is on advertising the product. It's goal is to create a potential market for the products of the firm. Advertising is an expensive method of promotional marketing, wherein, the products are made to reach a large number of people. For example, by using electronic media, TV, radio, press and outdoor hoardings, advertisers target the audience and try to create an impact on customers. Every business empire has earned its name, fame and money through hard work and by catering to customer's demand with quality and quantity. However, every small organization needs to make its name in the market by, first, catching the buyer's eye. It is at this juncture, that, promotional advertising ideas play a huge role, in defining the market for small businesses. Every business uses some sort of a promotion idea to strike their target audience. Promotional advertising is a tool used to harp the buyer with the idea of buying the product. Promotional advertising ideas, are used to instigate the user about the product, arouse interest about the product and create demand for the product. There are many ways of promotional advertising for businesses. The most effective ways of promotional advertising is promotional gifts and promotional giveaways. Promotional Advertising Gifts We all feel good when we receive gifts, thus, promotional gifts are the most effective way of creating a feel-good factor among the buyer about the company. Promotional advertising gifts open the buyer's mind to the brand, company name and the slogan. The buyer, with the help of these promotional advertising gifts, gets acquainted to a particular logo and a brand name. Moreover, as the promotional advertising gifts are given away for free, the potential buyer readily accepts it. Promotional Advertising Giveaways Promotional advertising giveaways are interactive promotional advertising ideas. These are similar to promotional advertising gifts, but not the same. These giveaways are distributed in the form of prizes to prospective customers. Some prizes are meant for practical purposes and some are just for fun. Everyday office supplies, stationary printed with company name, calenders, caps, t-shirts, towels, shopping vouchers for a particular brand are some of the examples of promotional advertising giveaways. Personal Selling One of the oldest ways of direct marketing promotion is to sell the products by direct interaction between the seller and buyer. It is believed to be the most difficult form of marketing, as it requires skills of persuasion and excellent communication skills. You may be a person who does not like to negotiate, but often ends up in positions where negotiation becomes necessary. Most people wrongly think that negotiation skills are only for salespeople. But, imagine a situation where you are planning to sell your house. Now, without negotiation you might end up getting a price that's much lesser than what your house deserves. Think of the losses you might have to incur, just because of poor negotiating skills. Thus, reasonably good negotiation skills can benefit you greatly, even if you are not in the sales business. For people in sales businesses, excellent negotiation skills are a must. Your sales depend upon your 'sales talks' and the price you fetch for your product, entirely depends upon your negotiation skills.

I consider following guidelines for effective sales negotiation skills and techniques. Contests is one of the effective, popular and most preferred form of promotional methods is to arrange certain contests for the customers. We all will agree to the fact that winning surprise prizes in a shopping mall or fashion store is simply exciting. One of the most attractive marketing strategies, organizing contests among the customers is a brilliant way to promote the products. In the quest to attract more customers, companies distribute coupons and pamphlets about the products. The customers are either given basic information about the newly launched products or they are provided with discounted coupons on the purchase of some accessories/apparels. Coupons make for an effective marketing plan for small business units. Free Samples The idea of freely distributing products, sounds weird and crazy for any company, however, there is a certain element of truth in the fact that marketing firms have gained substantial promotion through the idea of free samples. While, it is not logical to just distribute your products, you can devise a strategy, so that, the idea of free samples doesn't incur losses for your firm.

5. EFFECTIVE ADVERTISING TECHNIQUES

There are different types of advertising techniques and it's due to the effectiveness of these techniques, people are come to know about the different products in the market, besides the services provided. Newspaper and TV advertisement are some of the oldest advertisement techniques used. With the advent of internet modern advertisement methods like social networking websites, search engine advertising and internet affiliate marketing has gained popularity. Let's take a look at each of these techniques and their effectiveness in today's world. Internet Advertisement Advertising in the sponsored links of major search engines, has become one of the most effective method of internet advertising. The reach of the internet has become so huge that every person in any nook and corner of the world can view the advertisement of your products. Moreover, if you own a website, you can use search engine optimization techniques, wherein your website would be in the top 10 results of search engines. Getting to the first few rankings helps you to get a wider audience, which in turn can lead to more sales. Other forms of advertising include pay per click advertising and email advertising, which can also be tried out. Newspaper Advertising Advertising in newspapers have been used for several generations now and has been one of the most effective means of communicating with the audience. To create a successful advertisement in the print medium, you need to know some of the most effective print advertising techniques, like creating catchy slogans, inclusion of an offer, promotional advertising, etc. These techniques need to be used in other forms of advertising as well, as the amount of time spent on an ad by the end user is very less. Mail Advertising Direct mail advertising is a common advertising techniques and has also become a popular means of connecting to a wide range of audiences. In this technique, you get the mailing addresses of as many people as possible in a particular locality and send them a flier or brochure of your products. You can also send postcards, but make sure that there is enough content, as content is read. TV Advertising Advertisement on the television gives a semblance of a brand, and so it's important that you use this medium to the hilt. However, it's not that without advertising in this medium, a brand would not be created, there are several companies which don't use this medium and still are huge. The most important thing is having a compelling offer, which the audience would be interested in. Moreover you need to give your contact information be it your website address, telephone number, in that short period of time. Other than these, there are other mediums which you can use, and these include banner advertising, public relations, radio advertising and word of mouth advertising. What are Banner Ads? Banner ads are in many ways similar to the traditional printed advertisements in magazines. However, they do differ in several ways from the traditional mode of advertising. When a banner advertisement is placed on any particular website, a click on the ad directly transports you to the website of the product that is being advertised.

This means, you are saved the time of going to a store to purchase the product that has been advertised. Moreover, a banner ad is definitely more attractive than a regular printed ad, because a lot of graphics and animation can be added to it, to make it eye-catching and visually appealing. The location of the ad, however, is limited to one single place. There are, of course, instances of banner advertising where the graphics and animation are simply overdone. When a customer clicks on a banner ad, he is directed to the website of the product that has been advertised. Banner advertisements are based on the concept of pay per click advertising. This gives the publishing website income every time the ad is clicked, as a customer has been directed to the advertiser's website. Whether or not this click on the ad gets converted into a sale is immaterial. The publishing website will be given a payment, on the basis of the prevalent banner advertising rates. However, the banner advertising effectiveness will be determined for the advertising website, only when the click gets converted into a sale. If the web surfer does not click on the advertisement, the banner ad does try to ensure that the image of the promotional product has been registered, and that the web surfer will sometime in the future, visit the website directly. Then, the effectiveness of banner advertising is measured by the number of times the ad has been clicked, the number of times a visitor has been directed to the advertiser's website, and the ratio of the clicks to the page views. This gives them an exact idea of whether a visitor has been directed by a banner ad, or by some other medium. This rate ranges around only .1% and is rarely higher. Lastly, whether or not a visit to the website through the banner ad was converted to a sale is calculated. This gives an actual measure of banner advertising effectiveness.

6. FORMING AN ADVERTISING STRATEGY

Advertising strategy is a plan of an advertising campaign developed by a company that stimulates consumers to purchase its good or service. When forming an advertising strategy, advertisers should pay attention to four key elements, which are target audience, product concept, advertising message, and communications media. There are five steps in forming an advertising strategy: conducting advertising research, setting advertising goals, formulating budgets, creating advertising messages, and selecting media (Clow & Baack 2014; Shimp 2010.).

6.1. Conducting Advertising Research

Before implementing any advertising strategy, the first step that advertisers should bear in mind is conducting and reviewing advertising research. Advertising research is carried out to collect and analyze information necessary for making and evaluating advertising decisions. One of the functions of advertising research is to identify the target groups of consumers for a company or a brand. In this step, companies gather information on how consumers perceive the products, what consumers want to purchase, what they want from the products, and the insights into their purchasing behavior. In fact, consumers do not always purchase a product just because of its attributes. For example, when consumers buy a cosmetics product, they may not care about its ingredients, but what they might be more concerned with is how they look and smell when they use that product. In addition, advertising research also provides knowledge of how a company's consumers think of its competitors; what brand image is suitable; and what advertisements could be most attractive and effective.

6.2. Selecting Advertising Goals

According to Clow & Baack (2014), an advertising is built to attain five primary goals, including establishing brand awareness, providing information, persuading, supporting other marketing functions, and stimulating consumers to take action. These goals are also called communications objectives of an advertising strategy.

First of all, building brand awareness is the key goal of advertising as it is the starting point of forming brand image and brand attitude. Brand awareness takes place when a consumer recognizes and memorizes a brand, and when a need occurs, the consumer recalls the brand that can satisfy his/her need. Secondly, advertising is responsible for providing consumers information about store working hours, location or even product specifications. Information makes the process of purchasing become easier for consumers, which induces them to make their purchasing decisions. In the third place, the nature of advertising is to persuade people to buy products, services or ideas. Therefore, an advertisement is considered valid only when it is able to convince consumers to choose the advertised brand. To summarize, the five goals of advertising include forming brand awareness, which later leads to brand image and brand attitude; giving information; persuading; supporting other marketing functions; and encouraging purchase and consumption. These goals connect with each other in some way, for instance, building brand awareness and informing are part of persuasion; and company should not leave out any of them when establishing an advertising strategy (Clow & Baack 2014, 146.).

6.3. Formulating Advertising Budget

After setting suitable goals, the next step that needs to be considered is formulating advertising budget. There are several methods for allocating advertising budget, and it depends on different business models and situations to apply pertinent methods. In this thesis, the author would like to introduce four basic budgeting rules of thumb, which are the percenatge-of-sales, the competitive parity, the affordability, and the objective-and-task methods.

6.4. Creating Advertising Messages

Advertising message presents a company's value proposition through verbal and visual elements that are appealing and meaningful to the target consumers. Specifically, an advertising message is formed by three components: advertising appeals, value proposition, and slogan. Advertising appeal is the theme of an advertisement that can attract the attention of the target audience (Kotler 1997, according to Lin 2011). There are seven most popular types of advertising appeal: fear, humor, sex, musical appeals, rational appeals, emotional appeals and scarcity appeals. Normally, only one of them will be the theme of an advertisement and the chosen appeal must be consistent with the advertising goals. In this sector, the author would like to concentrate more on explaining three most common appeals: fear, humor and sex. (Clow & Baack 2014, 169-183.) Additionally, sexual appeals are normally accepted when it is used for sexuallyoriented products. In contrast, when it is used for other types of products, debates may arise. Further, sexual appeals are criticzed for encouraging dissatisfaction with one's body. Models in magazines or other media sources are normally thin, which indicates that in order to be beautiful, women have to be skinny and this causes many problems. Researchers also point out that women think they are too fat and feel unhappy after watching an advertisement endorsed by thin models. Besides, these above types of appeals, musical, rational, emotional, and scarcity appeals are also effective in attracting people's attention.

6.5. Selecting Media

The last step in developing an advertising strategy is selecting the suitable medium to deliver the message to consumers. Especially, there are relationships between the selected media form and other aspects of the advertising strategy. Specifically, the media chosen by the company must meet the right target audiences; must be suitable with the advertising goals and the budget of the company; and must be able to deliver the brand message. In other words, the relevant media requires a company to understand the habits of the target consumers in using media, and to combine that information with the profile of the audiences using that kind of media. Media is categorized into two main types: traditional and digital media.

Traditional media consists of print media (newspapers and magazines), electronic media (television and radio), out-of-home media (billboards; street furniture – bus shelters advertisements; transit – advertisements at airports or on the bus; and others), exhibitive media (product packaging), and supplementary media (specialty advertising – promotional products with an advertised brand, message, or logo; and others). Digital media are any types of media that exist in a machinereadable format. However, there are some kinds of traditional media that is merged into a digital form, such as digital out-of-door media – mobile billboards (Outdoor Advertising Association of America 2015).

7. CONSLUSION

Advertising is the best way to communicate to the customers. Advertising helps informs the customers about the brands available in the market and the variety of products useful to them. İt has a significant influence on product price, value, costumer's demand and our value system. . The trial objective is the one which involves convincing the customers to buy the new product introduced in the market. Continuity objective is concerned about keeping the existing customers to stick on to the product. Brand switch objective is basically for those companies who want to attract the customers of the competitors. Switching back objective is for the companies who want their previous customers back, who have switched to their competitors. Advertising is one thing that has become a necessity for everybody in today's day to day life, be it the producer, the traders, or the customer. Advertising is praised but also criticized by critics in their own ways. Advertising has many positive impacts along with its negative pictures. As the President of American Association of Advertising Agencies, John O' Toole has described advertise is something else. It is not related to studies, but it educates. It is not a journalist but gives all information and it is not an entertaining device but entertains everyone. It is a fact that there are several economic role of advertising and the most known ones are value of product, effect on prices, effect on costumer demand and choices and effects on business cycles. advertising helps increase value for the products by showing the positive image of the product which in turn helps convincing customers to buy it. Advertising educates consumers about the uses of the products hence increasing its value in minds of the consumers. Some advertised products do cost more than unadvertised products but the vice versa is also true. But if there is more competition in the market for those products, the prices have to come down, for e.g., canned juices from various brands. Advertising no doubt helps in employing more number of people. It increases the pay rolls of people working in this field. It helps collecting more revenues for sellers which they use for betterment of product and services. But there are some bad effects of advertisements on business cycle also. Moreover advertising has several social role such as deception in advertising, the subliminal advertising, effect on our value system and offensiveness of advertising. Marketing strategies govern the success of products and advertising forms the subset of a marketing plan. For achieving successful marketing strategies we need to fulfill al of the elements acurately. Market research is a process of the systematic collection of data, about a particular target market, competitors, customers, market trends, etc. The aim of market research is to obtain an in-depth understanding of the particular subject. A vital part of an effective advertising campaign is to adopt the method of marketing mix strategy during the planning phase, and implementing at the right time in an ordered manner. Marketing mix involves considering various elements of marketing like product, price, promotion and place. While product, price and promotion are easier to understand, place refers to the logistics and transportation costs of goods. There are basically two promotion strategies; the push strategy and the pull strategy. According to the push strategy, the marketers give generous discounts and benefits to the customers, so that, the sales can be increased drastically. Advertising strategy is a plan of an advertising campaign developed by a company that stimulates consumers to purchase its good or service.

When forming an advertising strategy, advertisers should pay attention to four key elements, which are target audience, product concept, advertising message, and communications media. There are five steps in forming an advertising strategy: conducting advertising research, setting advertising goals, formulating budgets, creating advertising messages, and selecting media.

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MODELLING THE IMPACT OF EXCHANGE RATE VOLATILITY ON AGRICULTURE SPHERE: IN CASE OF AZERBAIJAN

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ABSTRACT

The intensity of economic and political changes in the globalized economy requires significant changes in the exchange rate policies of the developing countries. This has led the determination of tranmission channel from exchange rate volatility to the economy to be much more complex for researchers. Different approaches have been put forward explaining the transmission channel in various countries. The short and long-run, direct and indirect channels of the transmission have been studied in the existing literature. The study examines and defines the tranmission channel from exchange rate volatility to the share of agriculture in GDP of Azerbaijan Republic. Key research variables of the study have been chosen among the main macroeconomic variables of the country. Quarterly data from 2007 to 2018 is taken for the econometric analysis. The paper uses a cointegrated VAR model, VECM model for Azerbaijan in order to study the response of the share of agriculture in GDP to non-oil real effective exchange rates in Azerbaijan. Empirical analysis shows that, for Azerbaijan there is a short-run statistical significant relationship between the non-oil real effective exchange rate and agriculture share in GDP getting its basis from the increasing trade in the country in a short-term. Besides, there have been found a long run relationship running from Imports; Inflation and GDP to share of Agriculture in GDP; and from Imports; Inflation and GDP to non-oil real effective exchange rate in Azerbaijan as well. In conclusion, decreases in trade (exports and imports) are transmitted to higher non-oil real effective exchange rate that also affects the share of agriculture in GDP negatively in a short-run and they relate with each other in a long-run as well.

Keywords: *Exchange rate volatilities, VAR model, VECM model, agriculture share, GDP to share of Agriculture*

1. INTRODUCTION

Oil revenues are very important source of an income for most of the oil exporting countries. Due to that importance and also dependence, other main spheres of the economy such as agriculture lags from development. Most of the times, these development lags are difficult to recover depending on the level of dependence of the economy on the specific natural resource. At the end of 2000, the "natural resource curse" resulted in the oil dependence of oil exporting countries, as well as Azerbaijan. In this regard, the non-oil sector started to weaken and be replaced by imports. The growth of and dependence on oil revenues in the oil exporting countries led to the strengthening of the national currency against other currencies as well. It showed its negative effects when the local currency got devaluated suddenly. Likely to other emerging economies, Azerbaijan has taken a number of economic and political steps to improve

the exchange rate and stabilize the economy in order to avoid the negative effects of those sudden shocks of the exchange rate. Thus, recently there have been some laws and regulations passed by the government based on the international experience mainly to improve the non-oil sector in the country. Due to the urgency of the issue the paper aims to investigate the relationship between exchange rate volatility and agriculture sphere. While investigating the issue, some of the recent existing literature have been reviewed both for Azerbaijan and other countries. Exchange rate fluctuations have a positive impact on the export of agricultural products in Nigeria, in particular, cocoa and agrarian loans. The relative prices of agricultural products, especially cocoa products, have been determined to be related to significant quantities of export. As a result, currency fluctuations have a positive impact on Nigeria's export of cocoa and it is recommended that agricultural loans be restructured in order to increase the production capacity of farmers by meeting their needs. In short, the value of cocoa exports in Nigeria should be determined by free market (Essien, E.B., Dominic, AU and Sunday, E.R., 2011, pp.1-10.). In another study, the impact of fiscal and monetary policies on the Brazilian economy has been assessed using a structural model. The results state the significant role of non-oil production, especially manufacturing in the economic development of the country while having a competitive exchange rate. (Sonaglio, C.M., Campos, A.C. and Braga, M.J., 2016, pp.77-95.) The study conducted by Gebeyehu, A.B. (2015) analyzes the volume of trade in seven of Ethiopia's major agricultural products considering the impact of exchange rate devaluations. Various methods have been used throughout the paper to clarify the issue. Impulse response results show that Ethiopia's trade balance follows J-curve pattern as the real currency depreciates. The study findings point out that the depreciation in real terms improves the BoP within a short period of time. The relative insignificant impact of the industrial production index on the BoP in Ethiopia is also stated using the VECM model. Another method of the autoregressive distribution lag (ARDL) was used to test the hypothesis that there is no short-term and long-term relationship between the exported oilseeds and the explanatory variables in Ethiopia. As a result, exports have shown that oilseeds exports have a negative relationship with exchange rate fluctuations. At the same time, the null hypothesis was denied by confirming that there were long-term relationships between the independent variables included in the model and exports of oilseeds (Mehare, A. and Edriss, A.K., 2012., 3 (11).). Oye, OO, Lawal, AI, Eneogu, A. and IseOlorunkanmi, J. (2018) in their research have had a detailed analysis of the relationship between the exchange rate and agricultural output in Nigeria. Using the Vector Error Correction Model (VECM) the study points out that the real effective exchange rate (REER) has negative linkage with agricultural production in the country. There is also found to have a direct link between REER and export prices. Hence, it also leads to the conclusion that exchange rate volatility is related to export revenues of the country as well. Since the significant effects of lagged effects of export prices on agricultural production are also revealed during the model analysis, the previous export prices can be used to predict the current agricultural output. Among the studies conducted for Azerbaijan in the sphere of agriculture, there are some have to be mentioned while reviewing the existing literature. Tahmasib Huseynov (2014) has analyzed the new approaches required in the growth of agricultural production in Azerbaijan concluding that opportunities in the agricultural share of GDP in the country are not fully used. Relevant statistical methods have been used to reveal the inefficiency in agricultural production of the country. Another related study has been done by Ali Rustamov (2017) about the evaluation of the Marshall-Lerner condition via the ARDL econometric model in Azerbaijan. The findings point out that depreciation in the real effective exchange doesn't have any statistically significant long-run and short-run effects on BoP variable (X/M). These have been found to be due to relatively inelastic import and exports in Azerbaijan against the REER. Consequently, Marshall-Lerner condition doesn't hold for Azerbaijan and there is no sufficient elasticity of exports and imports to improve the trade balance.

Following chapters have been added to the paper. Chapter 2 describes the data and methodology for the econometric framework used throughout the study. Chapter 3 depicts the cointegrated VAR and VECM to estimate the relationship between exchange rate volatility and share of the agricultural sphere in GDP and interpretation of the findings. The conclusion part is given in Chapter 4.

2. METHODOLOGY

The study applies the quarterly data from 2007 to 2018 since using quarterly data in the VAR model is much efficient and avoids the inaccurate conclusion on the lagged effects for the longer period such as in annual data. The following factors have been chosen to be included in the paper: Exports, Imports, Real effective exchange rate for non-oil sector (REER for non-oil), Agriculture share in GDP, Inflation (GDP deflator) and nominal GDP. The data on Exports, Imports (in US million dollars), Agriculture share in GDP (in %) and nominal GDP (in US million dollars) are from Azerbaijan State Statistical Committee. Inflation rate (GDP deflator) and REER for non-oil sectors information are obtained from the Central Bank of Azerbaijan. Due to the long-running fixed nominal exchange rate in Azerbaijan for the period studied, REER for non-oil sectors is included in the model. The study aims to analyze the impact of exchange rate volatility on the share of agriculture in Azerbaijan. The transmission channel of the relationship includes exports, imports, GDP and the inflation rate in it. In order to achieve the proper results and analyze the transmission channel between the variables in detail, the study applies Vector Autoregressive (VAR) model. The model is utilized for forecasting time series and evaluation of the responses to the shocks by interested variables. Some steps in the model building have been taken throughout the paper in order to investigate the transmission channel between the interested variables. The number of lags to be included in the model is defined first due to determine the lagged effects of interested variables on the dependent variable. As the number of lags is chosen, the VAR model is set for the mentioned variables.

2.1. The VAR process

The function of the VAR model is as follows (Enders, 2004):

$$x_t = A_0 + \sum_{1}^{n} A_i x_{t-i} + e_t$$

Where: xt is an (n x 1) vector containing each of the n variables employed in the VAR,
A0 is an (n x 1) vector of intercept terms

$$\begin{bmatrix} x_{1t} \\ x_{2t} \\ . \\ x_{nt} \end{bmatrix} = \begin{bmatrix} A_{10} \\ A_{20} \\ . \\ A_{n0} \end{bmatrix} + \begin{bmatrix} A_{11}(L) & A_{12}(L) & . & A_{1n}(L) \\ A_{21}(L) & A_{22}(L) & . & A_{2n}(L) \\ & . & . & . \\ A_{n1}(L) & A_{n2}(L) & . & A_{nn}(L) \end{bmatrix} \begin{bmatrix} x_{1t-1} \\ x_{2t-1} \\ . \\ x_{nt-1} \end{bmatrix} + \begin{bmatrix} e_{1t} \\ e_{2t} \\ . \\ e_{nt} \end{bmatrix}$$

Where: x_{it} are the variables employed in the VAR, i
A_{i0} are the intercept terms
$A_{ij}(L)$ are the polynomials in the lag operator
e_{it} are white-noise disturbances that may be correlated.
The n-equation VAR derived from Enders (2004),
A_i are (n x n) matrices of coefficients
e_{it} is an (n x 1) vector of error terms

The observation matrices for the paper are x_t = [Azerbaijan`s Inflation, real effective exchange rate for non-oil sector, imports, exports, agriculture share in GDP and nominal GDP]. The methodology of the VAR process has also been reviewed in the chapter. Firstly, the stationarity of the included variables should be checked. Unrestricted VAR is available for the stationary variables. However, the variable has to be differenced by the order until it is stationary if it is not stationary. Stationarity of the variables allows the cointegration test to be applied to the model. As the cointegration among variables is present, the process may continue with VECM (Vector Error Correction Model) method. If there is no cointegration, then the process stops with VAR in differenced data (Enders, 2004). Phillips Perron stationarity test is used in order to test stationarity. Based on the test results, the first differences of the variables have been taken in need. Economic models are built based on the first differences and level variables.

2.1.1. Cointegration test

Stationary variables are needed to perform cointegration analysis for the long run relationship among the variables. Since some of the variables are differenced to be stationary, the VECM method is required to be applied to the model. Lag order is selected before the cointegration test in order to implement the further steps of the process. Several methods of choosing the optimal lag order may be seen while determining the optimal lag order. The lag order satisfied by most of them or by the author is chosen for the further processes. A cointegration test based on Trace statistic and Maximum Eigenvalue statistic by Johansen (1988) and Johanson-Juselius (1990) has been used throughout the paper. 5% significance level is chosen for the test to define their statistical significance. The test aims to reveal the number of cointegrated vectors among the variables. Having not any cointegration vectors in the model also states about the absence of long-run relationship among the variables.

2.2. Vector Error Correction Model (VECM)

As the cointegration test states about the presence of the cointegration vectors, that is the presence of the long-run relationship, VECM method is used to reveal the long-run relationships among the variables. The equation of the VECM model is as follows:

$$\Delta x_t = \pi x_{t-1} + \sum_{1}^{p} \pi_i \Delta x_{t-i} + \varepsilon_t$$

The equation may be explained by its three parts: The short-run coefficient matrices, the long run cointegration matrix and the matrix of the speed of adjustment terms. The correctly specified model has to have the negative and statistically significant coefficient of the speed of adjustment as it states the correction of deviation from the long-run equilibrium.

3. RESULTS

As it is mentioned in the methodology part, Phillips Perron stationarity test is used to determine whether the variables are stationary. Due to nonstationarity, the first differences of Exports, GDP and REER variables have been taken and then included to the models.

3.1. Lag order selection process

The results of the lag order selection criteria for VAR, the final prediction error (FPE), likelihood ratio, AIC information criteria, and Hannan-Quinn criterion show that the appropriate number of lag is 4 lags. Since other criteria have close values at this lag level to their lowest, 4 lags is chosen to be the optimal lag structure of the model and to be included in the Johansen test of cointegration.

Table 1: VAR Lag Order Selection Criteria (EViews econometric software)

VAR Lag Order Selection Criteria
Endogenous variables: AGRICULTURE_SHARE D_EXPORTS D_GDP D_REER IMPORTS INFLATION
Exogenous variables: C
Date: 12/01/18 Time: 23:50
Sample: 2007Q1 2018Q2
Included observations: 41

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1240.502	NA	1.03e+19	60.80498	61.05575	60.89629
1	-1168.580	119.2857	1.82e+18	59.05267	60.80804	59.69188
2	-1080.368	120.4838	1.60e+17	56.50578	59.76574*	57.69288
3	-1025.014	59.40424	8.60e+16	55.56168	60.32625	57.29667
4	-952.6491	56.48033*	3.02e+16*	53.78776*	60.05693	56.07064*

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

3.2. Cointegration test

Cointegration test for the model states about three valid cointegration vectors in the model. The processes are gone through testing the number of cointegration vectors starting from 0:

- H0 : r = 0 is rejected at the 5% level (159.1416> 95.75366).
- Then the case of r = 1 is tested and since the trace statistic is greater than its critical value (91.62506> 69.81889), we reject the null hypothesis again.
- Then the case of r = 2 is tested and since the trace statistic is greater than its critical value (54.25090> 47.85613), we reject the null hypothesis again.
- Continuing with r = 3, it is found that the trace statistic is less than its critical value (24.45172< 29.79707). Thus, the null hypothesis is accepted. It results that there are three cointegration vectors in the model.

The presence of cointegration vectors (three cointegration in our model) is also explained as the existence of a long run relationship between the variables and hence, VECM (Vector Error Correction Model) methodology should be implemented for the model.

Table following on the next page

Table 2: Cointegration test (EViews econometric software)

Date: 12/01/18 Time: 23:55
Sample (adjusted): 2008Q3 2018Q2
Included observations: 40 after adjustments
Trend assumption: Linear deterministic trend
Series: AGRICULTURE_SHARE D_EXPORTS D_GDP D_REER IMPORTS INFLATION
Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.815095	159.1416	95.75366	0.0000
At most 1 *	0.607161	91.62506	69.81889	0.0004
At most 2 *	0.525256	54.25090	47.85613	0.0111
At most 3	0.329765	24.45172	29.79707	0.1820
At most 4	0.124640	8.446639	15.49471	0.4189
At most 5	0.075078	3.121830	3.841466	0.0772

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

As the results of cointegration tests have been obtained, the VECM model may be built. Throughout the VECM estimation, the main points such as the short-run coefficients and long-run relationship between the variables are estimated.

3.3. Short run analysis

In order to conduct a short-run analysis, the VECM estimation has been established first. Since there are six variables included in the model, there have been six equations under the VECM estimation model. Out of them, the ones with dependent variables of the share of agriculture in GDP and non-oil real effective exchange rate (REER) is chosen to be studied, since the paper aims to analyze their relationship with other variables in order to explain the transmission channel empirically. Thus, chosen equations are estimated again with OLS method in order to interpret the short-run coefficients of the lagged variables on the dependent variables. There are also cointegration equations which help to identify the speed of adjustment terms. In other words, they are error correction terms. If there is a deviation from the long run equilibrium, it will be corrected gradually through short run adjustment:

1. CointEQ1 = AGRICULTURE_SHARE(-1) + 6.00E-06* IMPORTS(-1) -7.32E-06*INFLATION(-1) + 2.81E-06*D_GDP(-1) -0.065151
2. CointEQ2 = D_REER(-1) + 0.001901*IMPORTS(-1) + 0.157894*INFLATION(-1) - 0.002331*D_GDP(-1) -20.76314
3. CointEQ3 = D_EXPORTS(-1)+ 0.040540*IMPORTS(-1) + 4.735712*INFLATION(-1) - 0.181549*D_GDP(-1) - 521.6191

The Wald test also has been conducted in order to analyze the short-term effects of the chosen independent variables together with its lags on dependent variables. Considering that the quarterly data is used for the paper, then the analysis of 4 lags together may be considered as a short-run analysis as well.

Table 3 states about the short-run analysis of the VECM equations (the ones with dependent variables of the share of agriculture and non-oil real effective exchange rate). While conducting the analysis, the significance of the joint effects of the lagged coefficients of each including variable has been tested in each equation via the Wald test. From the first equation, it may be seen that the lags of the non-oil real effective exchange rate and share of agriculture have statistically significant short-term relationships with the share of agriculture variable. In the meantime, the second equation states that there are statistically significant short-term impacts of the lags of exports and imports variables on the non-oil real effective exchange rate.

Table 3: Short-run analysis of the model (EViews econometric software)

Variables:	Share of agriculture	Non-oil real effective exchange rate	Exports	Imports	Inflation (GDP deflator)	GDP
1st equation (dependent variable is share of agriculture)						
Wald test (p-value)	0.0000***	0.0888*	0.7707	0.2005	0.2129	0.5033
2nd equation (dependent variable is non-oil real effective exchange rate)						
Wald test (p-value)	0.2113	0.2862	0.0028***	0.0073***	0.1664	0.1049

**** - significant at 1% significance level;*
*** - significant at 5% significance level;*
** - significant at 10% significance level.*

The above mentioned short-run econometric values state about the short-run transmission channel of the relationship between non-oil real effective exchange rate and share of agriculture in GDP in Azerbaijan. Starting from the second equation the transmission channel from non-oil real effective exchange rate to the share of agriculture in GDP can be explained in detail. There are statistically significant short-run effects of exports and imports on the non-oil real effective exchange rate. The signs of these effects are negative for both variables. That means the more increase in the exports and imports is the less non-oil real effective exchange rate. Since the non-oil real effective exchange rate is the non-oil nominal effective exchange rate adjusted by inflation that shows the value of a currency against a basket of the currencies of the main trading partners, the increase in the imports decreases the nominal effective exchange rate (nominal exchange rate against the currencies of main trading partners) and hence the non-oil real effective exchange rate. The increase in exports also affects negatively to the non-oil real effective exchange rate. The changes in exports are mainly (more than 90%) about the oil and gas products. Thus, the increase in the exports of oil and gas products also increases the oil and gas production in the country and demotivates the production in non-oil sector directly. Since the non-oil real effective exchange rate determines the real exchange rates in non-oil sectors against the currencies of main trading partners, the significant increase in exports of goods make the non-oil real effective exchange rate to decrease as the focus of the trade is oil products in that case. The first equation states about the negative relationship between the non-oil real effective exchange rate and the share of agriculture in GDP - most of the non-oil products in the country are from the Agriculture sector. It is because the more valuable the non-oil products against its trade partners is the less competitive non-oil products both in the local and international market. Since the country is dependent on imported goods, expensive non-oil local products will be substituted with the imported non-oil products. It will also make it less competitive in the international market due to its value against the goods of its main trading

partners. These are enough reasons for agriculture share in GDP to decrease when the non-oil real effective exchange rate increases. Concluding above findings, there is a short-run statistical significant relationship between the non-oil real effective exchange rate and agriculture share in GDP in Azerbaijan getting its basis from the increasing trade in the country in a short-term. It is proved econometrically as shown above.

3.4. Long Run Analysis

The long-run relationship in the VECM model is analyzed through cointegration equations. The order of variables is set based on what to analyze due to the placement of the variables in the cointegration equations. Since the paper aims to analyze the long-run relationship between agriculture share in GDP and non-oil real effective exchange rate, the order of variables put in the model is as follows: Share of agriculture; non-oil REER; Exports; Imports; Inflation and GDP. In this chapter, the order of restrictions is set to analyze the impact of Exports; Imports; Inflation and GDP to the Share of agriculture and non-oil REER in a long run. Although there are three cointegration vectors, the first and the second cointegration equations are chosen to be analyzed. However, the Johansen test automatically restricts three restrictions in each cointegration equation.

Table 4: Johansen normalization restrictions imposed (EViews econometric software)

Cointegrating Eq:	CointEq1	CointEq2	CointEq3
AGRICULTURE_SHARE(-1)	1.000000	0.000000	0.000000
D_REER(-1)	0.000000	1.000000	0.000000
D_EXPORTS(-1)	0.000000	0.000000	1.000000
IMPORTS(-1)	6.00E-06	0.001901	0.040540
	(9.2E-07)	(0.00083)	(0.09861)
	[6.53096]	[2.29052]	[0.41111]
INFLATION(-1)	-7.32E-06	0.157894	4.735712
	(6.3E-05)	(0.05708)	(6.78308)
	[-0.11587]	[2.76638]	[0.69817]
D_GDP(-1)	2.81E-06	-0.002331	-0.181549
	(6.3E-07)	(0.00057)	(0.06720)
	[4.48601]	[-4.12322]	[-2.70169]
C	-0.065151	-20.76314	-521.6191

Considering the two short-run equations from previous paragraphs, the coefficients of the cointegration equations should be reviewed. In order to conclude for the long-run causality, the coefficients should be negative and statistically significant, since they are error corrections for the long run relationship. The analysis shows that coefficient of cointegration equation 1 in the short-run equation with the dependent variable of the share of agriculture and cointegration equation 2 in the short-run equation with the dependent variable of non-oil real effective exchange rate have negative and statistically significant (at 10% and 5% significance levels, respectively) values. So it states that there is a long-run causality running from Imports; Inflation and GDP to share of Agriculture in GDP, and from Imports; Inflation and GDP to non-oil real effective exchange rate. The coefficients of the cointegration equation show the speed of adjustment in case of any deviation from the long-run equilibrium.

4. CONCLUSION

By using the VECM model, the impact of exchange rate volatility on agriculture sphere in Azerbaijan and its transmission channel has been analyzed in the paper. Both long and short-run relationships among the variables have been considered during the analysis. The short-run findings states about the negative statistical significant relationship between the non-oil real effective exchange rate and agriculture share in GDP in Azerbaijan. Besides, the long-run causality running from Imports; Inflation and GDP to share of Agriculture in GDP, and from Imports; Inflation and GDP to non-oil real effective exchange rate are also found throughout the econometric analysis. In 2015 Azerbaijan national currency devaluated against the foreign currency and it had a positive impact on the share of non - oil share especially agricultural share in GDP. Based on academic literature the devaluation stimulates exports of the country. Thus, devaluation in Azerbaijan increased the country's export possibilities in a number of sectors, especially in the non-oil sector. At the same time, after the devaluation prices of the non-oil products in the country rose and led to an increase in local market prices. It also had a positive impact on the supply of local products, especially agricultural products. Besides, recent governmental regulations, especially Azerbaijan Republic President's decree on Strategic Road Map dated to 6th December 2016 played stimuli for the development of agriculture in Azerbaijan. The main strategic goals of Strategic Road Map have been directed to the development of agriculture in Azerbaijan Republic which covers sustainable provision of food security, increasing institutional base for the agricultural sector, building information and monitoring system of population's food availability, increasing agricultural production based on supply chain management, developing export and local agricultural products production. These objectives will result in the increase of the share of agriculture in GDP and reduction of dependence on imports. Furthermore, the paper opens a path for the future research of the focus area and use of applied econometric model in the countries with similar characteristics such as Khazakhistan, Nigeria. The economic linkage between the exchange rate volatility and agriculture sphere in those countries is believed to state some interesting findings that will let the authors investigate the relationship between exchange rate and agriculture in oil exporting countries much in detail.

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THE ROLE OF THE ENERGY CHARTER TREATY IN FOSTERING AND PROMOTING ENERGY EFFICIENCY AND SUSTAINABLE DEVELOPMENT

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ABSTRACT

The paper aims to critically analyze whether the Energy Charter Treaty (hereafter "ECT") can be considered a viable instrument to foster and safeguard the concept of sustainable development, whilst simultaneously promoting foreign investment. First, an overview of the investment protection regime under ECT will be set out, assessing whether or not the ECT ensures that investments are in line with environmentally sound practices. Secondly, this study examine whether references to energy efficiency and environmental concern could signify that this treaty does not only place importance on investment protection, but also considers energy efficiency an equally important objective. Subsequently, this paper will argue that whilst the ECT can be read as promoting sustainable development, this goal is often not realized when the ECT provisions are applied in reality. Finally, the article will propose some reforms that could be made to the ECT which ensures observing key issue related to energy efficiency and sustainable development

***Keywords*:** *Energy Efficiency, Environmental Concern, Accountability, Regulatory Measures, Sustainable Development*

1. INTRODUCTION

The ECT provides a legal framework that creates predictability for foreign investment in developing countries. The ECT espouses predictability and non-arbitrariness (associated with the rule of law doctrine), which are cornerstones of a positive investment climate.[1] The current framework of ECT provides a secure and balanced investment climate for foreign investment to grow. The purpose of this instrument was to regulate states in their investment activity, and to protect and promote foreign direct investment. Promoting substantial rules on energy regulation arguably increases foreign investment in developing countries.[2] The key aspects of this framework promote transparency, stability and predictability in investment, with appropriate contract enforcement mechanisms, allowing business to operate efficiently.[3] Equally, the ECT, amongst other international regulatory instruments, aimed promote sustainable development in investment activities. This ought to ensure that those affected by foreign direct investment projects benefit from sustainable practices.[4] The inadequacy of the customary and international law governing states' duties in relation to alien property in developing countries prompted the international community to set minimum standards, governing states' investment activity. The paper examines whether or not ECT has, in reality, promoted sustainable development in investment practice. While the paper does not make a claim regarding the legal status of the principle of sustainable development, it will scrutinize whether the current articulation and reference of SD in the ECT effectively promotes the components of sustainable development.

[1] HSU, Locknie. Rule of Law and Foreign Investment. (2015). Rule of Law Symposium 2014: The importance of the rule of law in promoting development. 129-151. Research Collection School Of Law

[2] J Alexander, 'The Rule of Law and Foreign Direct Investment in the Developing Word' (PhD Thesis, University of California, Irvine 2014).

[3] Energy Charter Secretariate 'Role of the Energy Charter Treaty' (2009)

[4] A Adeyemi,' Changing the Face of Sustainable Development in Developing Countries: The role of the International Finance Corporation' (2014) 16.(2) Environmental Law Review 208.

2. GENESIS AND OBJECTIVES OF THE ECT

This section briefly remarks on the genesis and objectives of the ECT. The legal protection regime set out in the ECT will be discussed. The investment protection regime enshrined in the ECT framework offers extensive protection against the risk of regulatory changes, however, certain aspects of the ECT are weighted more so in favour of investor interests over state interests and the principle of sustainable development.

2.1. The Energy Charter Treaty's principles and objectives

The ECT is a unique multilateral treaty which was designed to consolidate the Former Soviet Countries with the rest of Europe by forming a common ground for foreign energy investment practice.[5] It aimed to create long-term cooperation between the former soviet countries and European countries.[6] Those countries were oil-rich but economically impoverished, and therefore in dire need of capital investment to bolster their economic growth.[7] The end of the cold war granted an unprecedented opportunity to European countries to forge stronger economic bonds with Russia and its neighboring countries to support those states in their transition to market economies. [8] Hence, The ECT has retained a distinctively European flavor and the provisions enshrined in the treaty have their roots in investment liberalization.[9] Some scholars have even argued that the far-reaching investment protection regime contained in the ECT demonstrates how this regime was set out predominantly to protect the European countries' outward investment. [10] The ECT focuses principally on the characterization of energy investment,[11] which makes this instrument markedly different from other treaties or bilateral agreements formed to protect and promote foreign investment. Article 2 of the ECT encapsulates the central theme of the treaty where it is explained that the treaty was formed "[…] to promote the long-term cooperation in the energy field, […] in accordance with the objectives and principles of the Charter". [12] There are a number of objectives associated with the ECT, the most important one, which is claimed to be the cornerstone of the treaty, is the legal protection of foreign energy investment.[13] In light of this regime, the ECT's provisions on investment issues attempt to ensure the creation of a "level playing field" for energy sector investments throughout the Charter, with the aim of reducing to a minimum the non-commercial risks associated with energy-sector investment in foreign countries such as discrimination, nationalization, damages due to war and exc. The ECT's deference to the principle of state sovereignty is enshrined in Article 18, 'Sovereignty over State Resources', wherein it is stated: "(1) The Contracting Parties recognize state sovereignty and sovereign rights over energy resources.[14] They reaffirm that the state sovereignty "must be exercised in accordance with and subject to the rules of international law."[15] It attempts to balance the desire of investors for extensive protection mechanisms and the need of the state to acknowledge its sovereignty over its natural resources and its discretion to regulate as it sees fit.

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[5] Gerard Hafner, *International Investment Law for the 21st Century*, (Oxford Scholarship 2009) 593,599.
[6] L Reed, 'The Energy Charter Treaty: an overview' (2008) 14 (2) Journal of international and comparative law 405,440.
[7] Ibid 408.
[8] E Gaillard and M McNeill ' The Energy Charter Treaty' in K Yannaca-Small (ed.), *Arbitration Under International Investment Agreements*, (200 Oxford University Press) 37,44.
[9] R J Stevenson, 'Energy Charter Treaty: Implications for Australia' (2001) 19 (2) Journal of Energy & Natural Resources Law 116.
[10] R S Axelreod, 'The European Energy Charter Treaty: Reality or Illusion?' (1996) 24(6) Energy Policy 497, 499.
[11] Richard Happ, 'Dispute Settlement under the Energy Charter Treaty' (2002) 45 German Yearbook of International Law 331, 339.
[12] Energy Charter Treaty art. 2, Dec. 17. 1995, 2080 U.N.T.S 100, 34 I.L.M. 360.
http://www.encharter.org/fileadmin/user_upload/document/EN.pdf Accessed 02 December 2017.
[13] K Hober 'Investment Arbitration and the Energy Charter Treaty', (2010) 1 International Dispute Settlement 153,155.
[14] Energy Charter Treaty art. 18 (1) , Dec. 17. 1995, 2080 U.N.T.S 100, 34 I.L.M. 360.
[15] Secretariat's statement on the principle of state sovereignty (7 June 2000) <http:// www.encharter.org/English/ Secretrait/index.htm>l7 June 2000.

However, whether or not the inclusion of the principle of state sovereignty into Article 18 imports real obligations on investors remains unclear. This essay will further scrutinize in the next section whether or not article 18 has struck the optimum balance between investor protection and the principle of state sovereignty the promotion of sustainable development is another agenda that ECT pursues.[16] It must be noted that the aim of promoting efficient energy and heightened environmental practices is well-grounded in the original intention of the treaty. [17] References to energy efficiency and environmental concerns signify that this treaty does not only place importance on investment protection, but also considers energy efficiency an equally important objective.[18] Crucially, the issue on climate change has been included in the treaty's preamble. This reference in the preamble indicates that the ECT at the time of its creation was wary of the implications of energy investment on the environment.[19] It could also be argued that the inclusion of the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects suggests that the treaty's environmental agenda is not devoid of any meaning, nor does the ECT pay mere lip service to the concept of sustainable development. This principle requires states to formulate a clear policy for improving energy consumption and productions and reducing negative energy cycles.[20] The ECT Article 19 includes in the pursuit of sustainable development and taking into account its obligations under those international agreements concerning the environment to which it is party, each Contracting Party shall strive to minimize in an economically efficient manner harmful Environmental Impacts.[21] Therefore, it can be argued that ECT serves an important role in ensuring that investments are in line with environmentally sound practices. However, as it will be discussed in the next section, whilst the ECT can be read as promoting sustainable development, this goal is often not realized when the ECT provisions are applied in reality.

3. THE LACK OF SPECIFICATION OF THE STATE SOVEREIGNTY PRINCIPLE IN THE ECT

Article 18 (1) of the principle of state sovereignty over the use of energy resources into the treaty. This principle aims to allow a state to fully or partially to regulate its energy resources as it sees fit. [22]The subsequent provisions of Article 18 elaborate upon some of the specifications of this principle. Article 18(2) provides that the Treaty shall not prejudice contracting parties, or the rules governing their systems of property ownership and energy resources.[23] Article 18 (4) provides that each state continues to hold the right to decide the geographical areas to be made available for exploration and development of its energy resources and the rate at which they may be depleted or otherwise exploited.[24] The open-textured nature of Article 18 has led some scholars to question whether or not the invocation of this principle is practically possible or even conceptually plausible under the treaty.[25]The lack of a clear formulation of this principle means that state sovereignty lacks any real force, practically speaking. The provision proves difficult to read alongside provisions such as article 10 (1). It appears to be declaratory of general international law principles, and it does not clearly define how a state can derogate from

[16] S Zhang, 'The Energy Charter Treaty and China: Member of Bystander' (2012) 13(4) Journal of World Investment 597, 600.
[17] Ibid 598.
[18] E Sussman, 'The Energy Charter Treaty's Investor Protection Provisions: Potential to Foster Solutions to Global Warning and Promote Sustainable Development' (2008) 14 Journal of International and Comparative Law 391.
[19] Ibid395.
[20]T Waelde and A Konoplyanki, 'Energy Charter Treaty and its Role in International Energy' (2006) 24(4) Journal of Energy and Natural Resources Law, 523, 535.
[21] Energy Charter Treaty art. 10, Dec. 17. 1995, 2080 U.N.T.S 100, 34 I.L.M. 360.
[22] Y Tyagi, 'permanent sovereignty over natural resources' (2015) 4(3) Cambridge Journal of International and Comparative Law 588, 590.
[23] Article 18(2) the Energy Charter Treaty .
[24] Article 18(4) The Energy Charter Treaty.
[25] D.E Fisher, *the Meaning and Significance of Resources Security,* (The Federation Press 1993), 42-43.

its obligations enumerated in earlier parts of the treaty. It seems to state the inherent right to legislate issues related to public policy[26], however, it is not explained how this should apply in reality. The subsequent statement of the ECT secretariat where he stated "this right must be exercised subject to the rules of international law"[27] did not she light on what would be clear scope of this principle's application. Essentially, the treaty does not specifically address in the event of conflict between the expropriation measures defined in Article 10 and the state sovereignty principle in article 18 which one would trump. [28]

3.1. The Importance of the Principle of Sovereignty in Ensuring Sustainable use of Natural resources

The principle of sovereignty is a well-established principle, based in international law. This principle implies that states have a wide discretion to manage their own natural resources. Further, as McCaffrey would argue, the principle also dictates that states are under the duty to manage natural resources within their own jurisdiction in a sustainable and effective way, so as to conserve natural resources appropriately.[29] This author would argue that the lack of specification in international law as to the scope of state sovereignty has significantly undermined the pursuit of sustainable development goals, when balanced against the aim of increasing foreign investment. In addition, ECT does not impose any obligation on states to manage their natural resources in " a rational, sustainable and safe way as to contribute to the development of their peoples."[30] In fact, the ECT is generally agnostic towards the quality or potential negative effects of FDI. More importantly, it can be argued that ECT regulatory scheme does not grant states a discretion to determine the investment as being non-sustainable based on any specific qualitative or quantitative criteria. This constitutes a major pitfall of the ECT regime in fostering and promoting the notion of sustainable development.

4. THE NEGLECT OF THE CONCEPT OF SUSTAINABLE DEVELOPMENT IN INTERNATIONAL LAW

The issue of the sustainable development has now been situated on the forefront of the energy discourse. [31]New international instruments attempt to embody this concept within their structures in order to be more responsive to the contemporary needs of the energy market. [32]The energy market is rapidly evolving and there is a radical shift in the approach of energy production and consumption. The concept of sustainable development has been incorporated into many international legal documents and has captured some of these changes within the energy market. However, the ECT fails to attend to such non-commercial interests making the instrument unable to respond to the needs of the market. There is a cursory reference to the concept of the sustainable development within the ECT which has rendered it devoid of any real meaning. As discussed earlier, the ECT regime creates favourable conditions by imposing binding obligations on states with respect to their treatment of foreign investment. To this end, a wide asset-based definition of investment was adopted in this framework. [33] The term "investment" is envisioned in Article 1(6) which encompasses every kind of asset, owned or

[26] http:// www. Encharter.org/English/Secretariat/index.html,7 June 2000
[27] Ibid.
[28] T Voon and A D. Mitchell, 'Denunciation, Termination and Survival: The interplay of Treaty Law and International Investment Law' (2016) 31 (2) ICSID Review 413.
[29] Stephen C. McCaffrey, Keynote: Sustainability and Sovereignty in the 21st Century, 41 Denv. J. Int'l L. & Pol'y 507 (2013).
[30] United Nations Conference on Environment & Development Rio De Janerio, Brazil, Agenda 21, 1992
[31] E Sussman (n 49) 402 403 404.
[32] D. Esty, 'Integrating Trade and Environmental Policy Making: First Step in the NAFTA', In Zaelke, etal (edn) Washington Centre for Environmental Law (1993) 45.50.
[33] Andre Newcombe, 'Sustainable Development and Investment Treaty Law' (2007) 8. J. World Investment & Trade 357,364.

controlled directly or indirectly by an Investor and includes: (a) tangible and intangible, and movable and immovable, property, and any property rights such as leases, mortgages, liens, and pledges.[34] This definition under the ECT is essentially a broad and open-ended list of every conceivable right or interest connected with investments. [35]The only limiting factor contained within the definition is that an investment ought be closely related to an "Economic Activity in the Energy Sector".[36] However, the association with such activity and the necessary degree of such association that must exist for a dispute to fall under the ECT dispute mechanism is not yet clearly articulated. [37] The tribunals in the Yokus[38] arbitration read article 1(6) (b) of the ECT as containing the widest possible definition of an interest in a company with no indication that the drafters of the ECT intended to limit ownership to " beneficial" ownership. In Petrobart limited V the Kyrgyz republic, [39]the tribunal considered that that the claimant's claim for payment under an ordinary sales agreement for gas condensate constituted an "investment" within the meaning of article 1(6) (f). This broad and commercially oriented definition does not include nor specify any qualitative criteria, nor refer to any social purpose of the investment in question. [40] It can be argued that ECT fails to encompass the notion of sustainable development by including whether or not the investment in question is environmentally or socially destructive. In essence, based on the current articulation of the ECT regime, a given investment is not disqualified from the benefits of ECT protection if it fails to meet sustainability criteria. However, this author acknowledges that making distinctions between sustainable investments and unsustainable investments is a task to be borne by states rather than international instruments. It is evident that the exercise of making determinations with respect to the sustainability of investments is fraught with conceptual uncertainty. It is suggested that there is no legal consensus on how various components of sustainable development can be optimally balanced and exercised. Provided that investments are invariably contextual and project specific, one is unable to strike an optimal balance between economic, environmental and social impacts of large investments in any legislation. A subjective assessment as to the sustainability of a given investment is required. Devising qualifying criteria to ascertain the sustainability of one given investment would amount to significant uncertainty and potential unfairness.

4.1. The Significance of Reconceptualization of Sustainable Development Within the treaty

The future drafters of treaty should be mindful that the cursory reference to the concept of sustainable development undermines sustainable development as a legal norm - it becomes more of an aspirational notion, devoid of any legal effect. No clear delineation exists as to what constitutes criteria for sustainable development at present within the ECT. It appears that the ECT adopted a formulation of sustainable development based on a reconciliation between economic growth and environmental protection, as opposed to a stand-alone concept in and of itself.[41] The ECT regime failed to delineate what constitutes sustainable development. Reference to the three components of sustainable development: economic development; social development and environmental protection, as interdependent and mutually reinforcing concepts[42] would go some way to remedy this deficiency.

[34] Energy Charter Treaty art. 1 (6) , Dec. 17. 1991, 2080 U.N.T.S 100 I.L.M. 360.
[35] K Hober, ' The Energy Charter Treaty- Award Rendered' (2007) 1 (1) Dispute Resolution International 36, 50.
[36] Ibid 42.
[37] R Happ (no 35) 341.
[38] *Yukos Universal Limited (Isle of Man) v. The Russian Federation*, PCA Case No. AA 227, Interim Award on Jurisdiction and Admissibility (Nov. 30, 2009)
[39] *Petrobart* (no 68) para 12.
[40] K. Hober, (2007) *The Energy Charter Treaty, Chapter5- Investment Arbitration In Eastern European In Search of A definition of Expropriation.* Juris Arbitration Law
[41] Gabcikove/nagymaros case (Hung v . Slock), 1997 I.C.J 7 Para 140.
[42] Plan of Implementation of the World Summit on Sustainable Development, U.N. Doc./Conf.199/20 (2002) Para 4

As suggested by Duncan French, a leading scholar in the field of sustainable development, a new conceptualization of sustainable development is required within the ECT framework. Future revisions of the ECT should reflect and acknowledge the three main subsidiary principles by including social, economic and environmental impact assessments of any specific investment project, to be assessed at a local level.[43] This new pragmatic reconceptualization of sustainable development, by contextualizing it in the form of social, economic and environment impact assessments, overcomes the conceptual difficulties associated with defining what constitutes sustainable development. This articulation gives the concept teeth, and provides local and affected groups with the authority to balance environmental, economic and social concerns against the goal of increasing foreign investment in a particular area.

4.2. Propositions to streamline the sustainable development process

As Thomas Waelde and Stephen Dow assert there is a need to incorporate innovative investment promotion to stimulate investment specifically geared towards sustainable development goals. [44] Environmental protection is stipulated in terms of the ECT.[45] There is no friction or conflict between the investment protection regime and sustainable development goals. This author would argue that the ECT could be used to promote environmental concerns consistent with the sustainable development agenda. While, the ECT is cognizant of its broader position within the international realm to promote energy efficiency and sustainable development[46], however, this treaty has not been effective in shaping up the decisions on how the energy must be produced and developed in consistent with the sustainable development agenda. A number of steps could be taken to ensure the smooth operation of the concept of sustainable development. The following measures are proposed by this author to help the application of sustainable development goals to the ECT regime.

a) Instead of setting out objetctive criteria to gauge the sustainable nature of investments, the ECT regime could establish sustainability impact assessments. Any given investment must undergo this assessment prior qualifying for the benefits contained in ECT. This process can include, for example, avoiding wasteful use of natural resources and promoting efficient waste minimization policies. Muchlinski's writings suggest that the best way to guarantee that state's comply with the results of such assessments is to impose specific contractual obligations on states.[47]
b) The ECT ought impose more onerous reporting requirements on investors. This could constitute reporting guidelines on economic, environmental and social performance of any given investment. The reporting system could operate prior to any investment being made and the reporting could be designed to monitor the social and environmental performance aspects of one investment. If the reporting requirement is not met to a satisfactory standard, then the host states will have the discretion to impose fines on investors, or revoke their right to continue with the investment project.
c) The ECT could introduce a new framework for investor conduct that is inconsistent with the principle of sustainable development. The ECT arguably reinforces what is acceptable, with respect to the conduct of investors. The ECT could expressly include best practice norms, standards and guidelines in the treaty text. If investors violated the standards contained in the provisions, a host state could institutes proceedings to have the investors' rights abrogated.

[43] Duncan French, ' International Law and policy of sustainable development) (2005) Manchester University Press 22.
[44] T Waelde (n 60) 215.
[45] J McDonald (n 96) 620.
[46] E Sussman (n 49) 392.
[47] P Muchlinski, *multinational Enterprises and the law (oxford: Blackwell 1995*)

5. CONCLUSION

As it stands, the ECT regime does not impair the concept of sustainable development. Indeed, aspects of the ECT framework actively promote sustainable development. The ECT is problematic, however, in that it only partially integrates the concept of sustainable development. The ECT lacks specification as to how to best promote sustainable development in practice. If the regime were to be revised, this author would argue for the integration of sustainable development principles by clearly delineating the scope of investment obligations and providing consistent and coherent mechanisms to promote sustainable development. The above suggestions highlight how the concept of sustainable development can have real effect, through an incorporation in the treaty of impact assessments, reporting requirements and a code of conduct for investors. The ECT should refer to all aspects of sustainable development, social, economic and environmental. Social development in particular should be referred to in future drafts of the treaty - as a concept, it includes good governance, respect for human rights and the promotion of human health. Future treaty drafters should be mindful of evolving international standards in order to a treaty optimal for the sustainable development agenda.

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16. United Nations Conference on Environment & Development Rio De Janerio, Brazil, Agenda 21, 1992.
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THE MAIN DIRECTIONS OF MONETARY SUPPORT OF MACROECONOMIC STABILITY IN MODERN CONDITIONS

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ABSTRACT

The article considers the concept of sustainable development, the main directions of sustainable development concept. Particular attention is paid to the peculiarities of monetary assurance of macroeconomic stability in the context of globalization for sustainable development. By analyzing its impact on transmission mechanisms of monetary policy, the direct effect of financial globalization on influence of this policy is traced. The paper further notes that globalization can affect the incentives for central banks to control inflation and, more directly, inflation processes in the short and medium term. Investigating the materials, the author draws the conclusion that, theoretically, globalization can affect inflation and monetary policy through several channels. First, globalization can directly influence the MCP by changing the environment in financial markets. First, globalization can directly influence the MCP by changing the environment in financial markets. Secondly, financial globalization, i.e. higher international mobility of capital may have an imbalance, forcing central banks to pursue sound money-credit policies for sustainable economic growth.

Keywords: *Sustainable development, macroeconomic stability, globalization, financial globalization, integration, money-credit policy*

1. INTRODUCTION

"Achieving sustainable human development is the most significant problem facing the world community". This statement was made in 1987 by the UN General Assembly. Since then, it has not lost its relevance - the concept of sustainable development is actively discussed by world leaders today [1]. Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The very concept was adopted at the United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992. The concept of SD was formulated by means of relations of three directions: economic, ecological and social.

2. RESEARCH

Over the past 20 years, the interconnection and interdependence of countries has increased significantly. This is manifested in all spheres, including trade, production and financial markets. The processes taking place in economies of some countries are rapidly transferred to the economy of other countries in one form or another. The concept of globalization is used to describe the growing interdependence of countries. The processes taking place in the world and in neighboring partner countries have not bypassed our country. As, in December 2015, 20 year-long financial stability reacted to a sharp decline in oil prices and a continued weakening of the currencies in the main trading partner countries by transition to floating exchange rate regulated by the Central Bank. After transition to the new regime, the stability of the financial markets has been restored as a result of the successful financial policy of the state in pursuit of manat's equilibrium. For comparison, it was not possible to reduce the ardor in the financial markets of Russia or Kazakhstan in such a short period of time after transition to floating currency regime. The process of melting the Central Bank's strategic currency reserves was stopped only through fiscal strain and monetary support measures. Although monetary policy has achieved its ultimate targets and controlled manat's exchange rate and inflation, the impact

of unfavorable conditions in world markets has not been neglected by the real sector and banks. "Standard & Poor's " (S & P) agency has lowered Azerbaijan's credit rating from BBB to BB +. At the same time, the rating of different commercial banks operating in our country has been downgraded. In march 2016, was established the Financial Markets Supervision Chamber public legal entity- mega regulator, which was able to respond the calls from current financial markets more effectively and flexibly. In addition, in order to consolidate the stability of banking sector further steps have been taken by the Central Bank, and currently there are 37 banks operating in our country. It is already possible to notice the benefits of economic reforms in Azerbaijan in the financial sector. In particular, the policy of economic inculcation through the banking sector is successfully implemented in the context of manat and price stability. Rapid economic reforms and good infrastructure form the basis for economic growth and sustainable growth. With the purpose of sustainable development and monetary assurance of macroeconomic stability in the context of globalization, it is necessary to trace the direct impact of financial globalization on the MCP impact, analyzing its effect to transmission mechanisms of the policy. Attempts to synthesize various theoretical approaches to monetary policy led to the fact that several channels of this policy with impact on economic activity have been allocated:

- interest rate channel;
- exchange rates channel;
- credit channel;
- a channel associated with asset prices

Transmission mechanisms are the channels through which the decisions of the MCP affect the economy. Probably the most famous of them is the interest rate channel. Although the MCP instrument is a very short-term interest rate, long-term rates have a greater impact on savings and investment decisions. The direct channel is linked to the interest rate on the basis of the IS-LM model. The channel related with the exchange rate shows the effect of changes in exports and imports. The credit channel takes place when banks react to monetary policy mainly by changing interest rates and lending. The channel associated with asset prices shows how the level of investment and consumption changes as a result of a change in the share price. In the first approach, proceeding from what has been said, the process of globalization is connected with the exchange rate. The channel effect associated with the exchange rate can be complicated by the fact that the exchange rate, in addition to the interest rate, is set by the central bank within the country, depends on many other factors, including the state of foreign trade, economic situation in the trading partner countries, changes in the mood of market actors and confidence in the policy of authorities. In modern conditions the exchange rates are characterized by relatively high volatility (changes in interest rates). the channel activity associated with the interest rate in those countries where financial markets (including bond markets) are underdeveloped and the banking system is based on external financing, providing mainly short-term domestic loans is particularly complex. This situation is common to many developing countries. International integration of financial markets is called financial globalization. This definition implies an increase in cross-border capital flows and the trading of financial assets in the financial-global world. The global nature of financial markets has created a favorable area for the growth of financial innovation, which in turn has made financial markets more closely integrated and complex. Lucas Papademos stated in his speech that financial globalization, measuring both the amount of stocks of foreign assets and the external liabilities of the entire economy as a percentage of GDP, tripled in the advanced economies from the early 1990s to 2004 and only in the Euro area the amount of outstanding foreign assets and liabilities increased from 190% of GDP in 1999 to 280% in 2005 [3]. In Azerbaijan, GDP in real terms decreased by 3.9% to 43.4 billion manats. GDP per capita amounted to 4512.5 manats [4].

Another statistical indicator of financial globalization is the correlation between financial variables in different countries. A high correlation between short and long-term interest rates and asset prices indicate a higher financial globalization. Correlations between variables in financial markets increased with increasing financial interdependence. High rates between financial variables are due to the growing secondary effects of national financial markets on other countries. In the context of financial globalization, the task of developers of monetary policy becomes more and more complicated. They may also need to take into account international developments when making decisions in the area of monetary policy. The integration of financial markets can affect the transmission mechanism of monetary policy, making some channels more important, and some others less effective, in contrast to the case in the past with less integrated financial markets. MCP operates through the control of short-term interest rates. Changes in the short-term interest rate affect the conditions in financial markets, affecting long-term interest rates, bank loan offers, capital and asset prices and the exchange rate. Expectation theory of the timing structure states that long-term interest rates represent the average of the expected future short-term interest rates. Thus, in the international integrated financial markets, the sensitivity of the long-term interest rate and the price of long-term assets to a short-term interest rate may decrease due to the influence of international market conditions on long-term interest rates. Does this mean that monetary policy has lost its effectiveness in the context of financial globalization? The discussion is not resolved, and the number of studies is growing on this issue, especially after the financial crisis of 2007. Some authors argue that the ability of central banks to monitor monetary policy depends on enhancing financial globalization. For example, Rogoff argues that even large central banks have less direct control over the medium and long-term interest rate at present than it could be in the case of less integrated financial markets [5]. Inflation in the period of globalization. Inflation is a deterioration in the purchasing power of money. This happens when the central bank carries out money issuance in a volume larger than the demand from the market. The result is a possible increase in all prices and salaries. And while the discrepancy between supply and demand for money remains, prices and salaries will grow. Globalization can complicate the process of inflation only if it somehow disrupts the work of the central bank, but this seems unlikely. In fact, some scientists believe that globalization has actually improved the behavior of central banks, punishing those whose currencies do not have a stable purchasing power. Average annual inflation in Azerbaijan in 2016 was 13.3% [4]. Indeed, world inflation was moderate in the 1990s, as the global integration of financial markets accelerated. For example, according to the IMF, from the early 1970s to the early 1990s, world inflation averaged about 16% per year. Since the mid-1990s, world inflation has averaged slightly less than 5% [6]. Most of the recent improvements have come from developing and emerging countries with market economies - groups that previously did not have monetary and political discipline. By the middle of the 1980s, central banks in key developed countries, especially in the US, Britain, Japan and many European countries, had regained confidence in what they lost in the 1970s. In these countries, residents benefit both from direct consequences of low and stable inflation, and from the indirect influence of having a currency with an international reserve status. Ultimately, as long as the central bank has an independent monetary policy, that is, it is not tied to a fixed exchange in which its hands are tied - the level of inflation is determined by money-credit policy. Kenneth Rogoff argues that globalization has led to greater price flexibility, which has reduced the ability of central banks to use inflation surprises to increase output [5]. As a result, central banks will have less interest in trying to use a short-term trade-off between inflation and unemployment. Globalization, as it makes markets more competitive, also has the potential to stimulate productivity growth. Higher productivity growth can lead to lower inflation, since it directly reduces prices if the MCP does not become more expansionary. In addition, such growth facilitates monetary regulation institutions permission to reduce inflation, as production

growth will continue at a rapid pace when inflation decreases. Since globalization increases competition, it can also reduce margins, and this reduction can lead to a drop in relative prices. However, lower mark-ups and price levels should only have a temporary effect on inflation. In addition, forecasting lower margins as a result of globalization, appears to be contrary to the high rates of corporate profitability, which we are seeing now in the world. One of the characteristics of globalization is that it has brought more than a billion new workers into the world economic system from China and India. Some observers argue that, thanks to the sale of cheap goods, developing Asia, and especially China, "exported deflation" and will continue to do so until salaries in these countries increase.

2.1. Relative price changes

Of course, prices can change not only because of inflation. Prices are constantly adjusting to changing pressure from supply and demand. Economists call this the adjustment of the relative price, and it is fundamentally different from inflation. Relative price changes reflect important information about the deficit of specific goods and services. The rise in the relative price indicates that demand is higher than supply (or that the supply lags behind demand), while a fall in the relative price indicates exactly the opposite. Inflation, on the contrary, does not provide any information useful for our consumption, production and choice of labor. In any case, inflation can add noise to the price signals that inform us of our decisions, and can lead people to erroneous economic choices. Worse, inflation can cause people to divert time and resources from activities conducive to production and long-term economic growth, and to activities that serve only to protect their wealth, and not to expand it. Globalization is not detrimental to the central bank's ability to control inflation, but history shows that it can sometimes increase relative price changes by exerting more pressure on global demand and supply from individual countries. Some of them directly affect the purses of consumers, as well as the prices of imported and exported goods. Many domestic industries use foreign resources, so domestic costs can grow and fall with global price shocks. Similarly, external competition will affect the pricing strategy of domestic firms and the salary requirements of domestic labor organizations. Some of the beneficial effects of globalization are even harder to see. Developing specialization, global integration on the market slowly increases productivity and reduces unit costs, thereby supporting lower inflation. Risks associated with a sharp decline in global financial imbalances. Incomplete financial globalization, reflecting the low level of financial market development in other fast-growing emerging market countries combined with the hypothesis of "excessive saving," can partially explain the current level and evolution of global net foreign assets and liabilities. Participants in the financial market may eventually question the sustainability of some of these policies and change their behavior in anticipation of their final consequences. There is no doubt that financial globalization contributes to the international division of risks, promotes economic growth and reduces macroeconomic instability. However, the size and specific asymmetry of the positions of net foreign assets observed since the late 1990s are associated with potential mid-term and long-term risks to financial stability. Main and sharp corrections to asset prices associated with the disorderly elimination of global financial imbalances can become the main mechanism for dissemination of financial instability. At the same time, practice demonstrates the persistence of a significant number of countries, mainly developing ones, seeking to regulate the rates of their currencies. One of the brightest manifestations of this trend is the significant growth of world foreign exchange reserves in recent years. These processes support the world monetary system, indirectly based on the prevalence of the US dollar, primarily as a reserve currency. If the world monetary system changes to bipolarity, first of all, in terms of substantial enhance of the role of the euro as the currency of reserve assets, the national currency policy will face new significant external risks.

Bogomolov O.T., emphasizing the influence of globalization on the stability of national financial systems, states that even in situations where financial crises can be triggered by internal causes (for example, erroneous state policy), the presence of significant short-term speculative capital flows and its possibility of rapid exit from the country increases the impact of these crises [7]. Improvements in information and communication technologies have become important factors of globalization. Consequently, in a globalized world where goods and services can easily be obtained from low-cost suppliers, access to foreign financial markets is readily available, and capital flows across national borders can have important implications for MCP. Changes in the economic environment due to global forces can change the relative importance of the channels through which MCP operates. The theory suggests that the key elements of the MCP structure, such as the inflation process and the transmission mechanism, can be affected by the global integration of financial and commodity markets through various channels. Moreover, globalization can have a permanent impact on prices. The importance of globalization consequences MCP is emphasized by central banks and scientific researchers [8]. It is generally recognized that MCP bodies can no longer ignore international developments in the context of globalization. Consequently, the adoption of MCP has become a complex task. Theoretically, globalization can influence inflation and monetary policy through several channels. First, globalization can directly affect MCP by changing the environment in financial markets. In integrated financial markets, MCP transmission mechanism can be affected by changing the relative importance of transmission channels. Moreover, the response of the long-term interest rate to short-term rates may decrease due to the impact of international market conditions on the long-term interest rate. Secondly, financial globalization, i.e. higher international mobility of capital, may have an imbalance, forcing central banks to pursue sound money-credit policies. Globalization can affect domestic inflation through trade. Trade integration can have a direct impact on inflation through the import price channel and the indirect effect through increased competitive pressures. Cheap imports from China and other developing countries put downward pressure on prices, when this import is used as a contribution to the production process. However, the effects may not be in one direction. Reducing pressure on prices due to lower imports can increase the purchasing power of consumers, which they will use to buy other products that increase the pressure on the prices of these products. In addition, the growth of international trade is associated with high productivity growth in developing countries, such as China and India. The high demand for raw materials from these countries increases the pressure on the prices of manufactured goods. These compensating effects may be one of the reasons for skeptical and mixed empirical data on the impact of globalization on domestic inflation.

3. CONCLUSION

Certainly, the ongoing global economic integration is a phenomenon of the greatest importance that will contribute to the formation of the Azerbaijani economy for decades. Globalization did not have a significant impact on the ability of the CBAR to affect the financial state in the country and did not lead to substantial changes in the process that determines the level of inflation. However, to adopt an effective MCP, it is now necessary to consider a variety of global influences, many of which have not yet fully understood. The CBAR continues to give high priority to understanding the influence of globalization on the economy of the country as a whole and on conducting of the transmission monetary policy of Azerbaijan in particular.

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THE ROLE OF ICT IN TOURISM GLOBALISATION

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ABSTRACT

Nowadays, tourism is a global computerized (digitalized) business, including participation of airline companies, hotel chains, and travel corporations. Globalization has become not only the real basis for the formation of mass tourism, but also has a tremendous impact on innovative activities in the socio-cultural sphere. Tourism uses advanced technologies, which include new products, microprocessors, media and communication technology. Given that approximately 1/7 of the world's population are involved in the tourism activity yearly, we can confidently discuss the actuality of challenges in tourism. The emergence of modern means of media and communication (ICT) has a profound impact on economic production and people's daily routine activities. Contemporary tourists' activities, the work of tourism companies and organizations cannot be imagined without ICT. Currently, customized technologies tailored for individual tourism are demanded and being developed at a rapid pace. The aim of the study is to examine Azerbaijan's potential in the implementation of innovative technologies in the sphere of tourism. The research of tourism companies and organizations' activities countries shows that they achieve success not only through ICT, but also through an individual approach to building an innovative model of managing the tourism business. The possibility of implementing innovative models of tourism business management is regulated exclusively by the state. State policy, legislation, environmental protection, healthcare, the level of development of human and natural resources are indicators that determine the effectiveness of the country's tourism sphere. Based on this, the study attempted to identify the impact of these indicators on the efficiency and optimal level of performance of the tourism business in Azerbaijan. As a result, innovation in tourism should be aimed at creating a new or upgrading and customizing existing products and services, improving transportation and logistics infrastructure, hospitality and other services, developing new niche markets, as well as implementing advanced ICT into organizational and management activities within the industry. With the introduction of advanced technologies in the field of tourism, the term "globalization" began to have a more fundamental role, providing access to data recreation types, prices, online accessibility to accommodation details and purchase of tour packages. This kind of new approach had a great influence not only in the sphere of tourism on the global scale but also exerted an influence on the development in the respective countries. Considering Azerbaijan's historical sightseeing places, one of the ideas recommended to be realized is the implementation of Augmented Realities (AR) in the tourism industry. Unfortunately, over the past few years, we have witnessed a significant decrease in the numbers of tourists visiting the museums. Through the help of the integration of AR in the application, the process of viewing the exhibits can be made more interactive, resulting in the hands-on experience, which will make the country's history more memorable for tourists. Consequently, innovations in tourism should be considered as permanent, global, and dynamic processes.

Keywords: *Augmented Reality, Information Communication Technology, innovation, tourism*

1. INTRODUCTION

Tourism is an information-enhanced sphere of the economy. It influences economics, ecology, social factors, religious relations, cultures, and other scientific categories in the field of human activity (Smeral E., 1996: 395). In Azerbaijan, the direct contribution of tourism related activities generated 4.2% of total GDP in 2017.

Tourism industry has been highly impacted by the globalization of information and the advent of information and communication technology (ICT) particularly during last decade. McGrew states that globalisation consists of a multitude of interconnections and a mutuality of influences between countries and societies making up the current global system (McGrew A.,1992). New patterns have evolved by globalization of information, technological convergence and open innovation. Contemporary tourists' activities, the work of tourism companies and organizations depend on ICT. Information and communication technologies play crucial role in developing sustainable tourism within the country. Since the tourist product is not tangible for the consumer, the role of timely submission of relevant, comprehensive, reliable and high-quality information is important. The tourism and hospitality industry in Azerbaijan is developing from year to year and is a source of income in the country's economy outside the oil and gas industry. The development of innovation and related processes in tourism is necessary both at the state level and at the level of tourism enterprises. So, as a sustained high level of innovation in this area contributes to the competitiveness of tourism organizations and enterprises at the micro level, which in turn leads to the prosperity of the regional economy.

2. ICT IN TOURISM INDUSTRY

Tourism is a complex phenomenon that plays an important role in socio-economic development of a region. The development of tourism in a certain direction includes many stakeholders, for whom it represents a source of economic and social progress as well as causes negative consequences at social, environmental and economic levels. It is for this reason that the tourism industry should pay attention to ensure sustainable growth, which is the creation of an innovative environment that provides tourism business projects that do not bring added value only for tourists, rather for stakeholders. Today, it is difficult to imagine tourism industry without the use of the Internet, given that it has following advantages:

- effective and relatively less costly advertising
- access to up-to-date information on rates and prices of accommodation, restaurants, political and economic environment in different countries, newsletters/updates regarding legislation on tourism in countries, etc.
- promotion and marketing of product and services in tourism industry
- access to online reservation systems and platforms

Innovations are not limited to the travel system, they can relate to a small boutique family hotel, which launched its first website, or simply a restaurant that will enrich its offer with new menu - innovation is an improvement and a desire to develop an enterprise and adjust it to fulfill market needs. Sources of innovation in the tourism industry can occur outside of the industry itself. One such example is information and communication technology (ICT), which is primarily fostering the innovative development within tourism (online services such as electronic registration and online booking systems). On a functional basis, information and communication technology (ICT) in travel agencies are divided into three classes:

1. main technological systems that ensure the implementation of customer orders (reservations)
2. support systems that provide automation of the work of tour operators on the formation of documents - bills, vouchers, tickets and business trips of mutual settlements with the main computer and transport systems
3. management systems that update the data on the activities of firms and provide managers with information.

New systems should integrate all these functionalities on the basis of global telecommunication networks or specialized computer systems for booking travel services.

Partially, as a result of implementation of ICT in the tourism industry in Azerbaijan, the number of tourists in recent years in our country has increased significantly. Based on the chart, we can see that in 2017 and 2018, most of the visitors were from Russian Federation, while least from Asia.

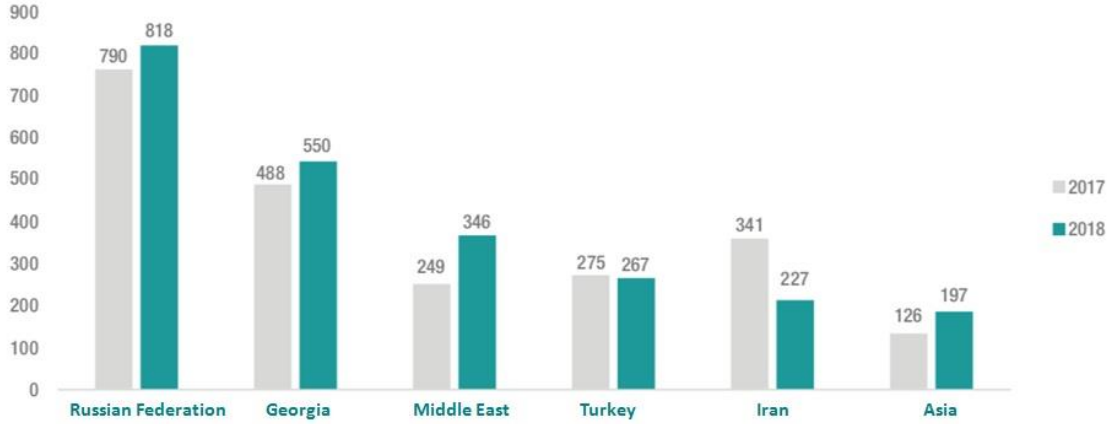


Figure 9: Number of foreign tourists (thousands) from 6 countries / regions in 2017 and 2018 (Azerbaijan Tourism Board (ATB), 2018)

Nowadays, tourists are becoming more self-sufficient thanks to the ease of access to wide range of information in various online platforms and social media. ICT triggers faster transfer of information and boost networking activity that strengthen the effect of globalization. Fundamental shifts in human information flows is associated with the rise of social media. Internet services such as Instagram, Facebook, Twitter, YouTube are being utilized increasingly, enabling exchange of experience and information. For instance, any individual may utilize online search engines, social networks to plan desired trip and minimize services charges and other related expenses. On the other hand, abundance of information triggered by emergence of new technologies makes consumers demanding more individualistic and customized services and products in tourism industry. Thus, currently, customized technologies tailored for individual tourism are demanded and being developed at a rapid pace.

3. AUGMENTED REALITY (AR) IN TOURISM INDUSTRY

Higher demand for more customized and creative products and services requires creative tourism. The term was first defined by Richards and Raymond as an extension or a reaction to cultural tourism offering visitors the opportunity to develop their creative potential through active participation in learning experiences of the holiday destination. (Richards, G., Raymond, C., 2000). While, UNESCO defines creative tourism as participative learning in the arts, heritage, or special character of a place that provides a connection with those who reside in this place and create this living culture. In the context of tourism, smart applications of technologies (e.g. cloud computing, location-based services, virtual reality, augmented reality) enhance the tourism experiences and services and generate creative tourism business models. Augmented Reality might be related to one of such technology application in the tourism industry, supporting visitors in obtaining precious information and enhancing their knowledge regarding sightseeing places while improving the tourist experience and offering more amusement throughout the process. In general, Augmented Reality refers to the enhancement of the real environment by computer-generated content, which is up to date mostly supplemented with graphical content (Hyun et al., 2009). The application of Augmented Reality is quite wide: from industry and medicine to education and culture. Today, in various areas of the tourism industry, almost all combinations of VR/AR devices and applications can be found.

Hotels may begin using 360-degree photos and videos to promote themselves. Many museums may use technologies like AR to "install" large virtual objects in their premises, for example, a ship or an airplane. Booking accommodation might be one of the most challenging activities in traveling. Selecting by photographs alone, it may not be easy to remotely choose a hotel or resort. Even in the case of professionally taken and processed photos on the hotel's website, the risk of their deceptiveness is inevitable. But if you could see 360-degree photos or videos of the accommodation, then it would be more difficult to hide the shortcomings of the room from the potential client. Of course, a person is unlikely to enjoy looking at a stained carpet during a virtual tour, but at least he/she will not be misled and will be able to look for a best alternative. Besides, Augmented Reality can help to make a decision regarding the trip. Even before the departure to the destination country, a person can see the landscapes and sightseeing places of selected region, country and a city. Thanks to augmented reality, there is a unique opportunity to travel in time. By utilizing AR tourists have an opportunity to learn and enhance their experience in historical places including castles, state reserves, settlements and artifacts in the museums. Now tourists can see how the buildings, streets, and cities looked like many years ago. Plunging into the atmosphere of past eras, tourists become full participants in various events of the past. National Reserve Park and museums may potentially increase number of visitors by attracting more visitors with the help of AR. Gobustan State Reserve, Shirvanshah's Palace and many other historical place of Azerbaijan Republic can harness in the future benefits of AR application. Furthermore, AR has potential to face translation challenge that tourists often face during their trips to foreign countries. Implementation of AR technology facilitating real time immediate translation of street and transportation signs, magazine headlines, restaurant menu and others makes the trip more pleasant and consequently the place more attractive for the tourists. In addition to Augmented Reality customized applications may be created. Imagine, a person is walking around the old city. Instead of just taking photos as ordinary tourists do, he/she would like to get unique experiences. A person can create a customized tourist application, where it shows a route according to preset preferences. For example, if a tourist would like to see 40% romantic, 10% historical and 20% restaurants, consequently the application will be showing the route that is fully responsive to his/her desires. A visitor can easily find excellent restaurants and cafes, and at the same time, and not need to worry that he/she will miss the most desirable sights since those have already been indicated them the preferences.

4. CONCLUSION

Nowadays, tourism is a global computerized industry, including participation of airline companies, hotel chains, and travel agencies and related organizations. Globalization has become not only the real basis for the formation of mass tourism, but also has a tremendous impact on innovative activities in the socio-cultural sphere. Certainly, the creative tourism is one of the newer forms of tourism that are particularly attractive for contemporary tourist. Carrying out a study of the Azerbaijan's tourism market, it is worth highlighting that the region is at the crossroads of Europe and Asia. As trade routes of the Great Silk Road passed through Azerbaijan caravanserais were built in all major cities to accommodate the merchants. Some of the surviving caravanserais in Baku and Sheki are still used as hotels or recreational sites. Tourists may have memorable and valuable experience as the country has many particularities such as geographical diversity, favorable and diverse climate, a unique combination of natural and recreational resources, rich cultural and historical heritage, extensive sanatorium-resort base, exquisite national cooking, etc. Thus, in order to attract more visitors in today's competitive conditions, it is crucial to rejuvenate authentic places in innovative ways offering unique cultural experience to the tourists visiting it.

Furthermore, the subsequent steps should be followed for sustaining favorable environment for tourism industry:

- focusing on online marketing, integrating into globally utilized platforms such as Booking.com. Trivago, AirBnB and etc. In addition, it is necessary to promote the distribution of not only luxury hotel chains in large cities, but also budget hotels and hostels, as well as rental of private houses. In addition to benefiting from existing online platforms, develop conditions for online accommodation bookings and many other services in medium and inexpensive hotels. The presence of applications and websites in such hotels, in the first place, will make them easily accessible, as well as create many jobs for programmers and people with technical background and skills.
- In order to better familiarize tourists with local cultural traditions and experiences, advertisements must be allowed to help guests learn about local crafts: carpet weaving, making pottery and wickerwork, visiting local events and businesses that can make their holidays more memorable.

Last but not least, it is essential to establish and implement particular strategic plans for development of tourism in the country at national, and to then move towards more scrutinized and customized agenda in the development of creative tourism, which will lead to the positive outcome. Along with other issues, agenda should tackle the challenge of suppliers within tourism industry who are sometimes not heterogeneous and not always rare in line with globally accepted quality standards.

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THE IMPACT OF THE FLUCTUATION OF GLOBAL OIL PROCES ON AZERBAIJAN'S BUSINESS DEVELOPMENT

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ABSTRACT

According to statistics, Azerbaijan's exports were valued at US $15,5 billion in 2017. This puts Azerbaijan at 76th spot among 224 countries in the world. Oil contributes 90% of all exports. Thus, oil prices in the global market have a significant effect on the economy of Azerbaijan. After gaining independence and the realization of "the Contract of the Century", signed in 1994, a new stage in the development of the country began. This lead to the establishment of global companies in Azerbaijan. They not only invested in the economy but also brought their innovative corporate management culture. A cadre of modern managers began to form. Starting from 1995, with the cash flow generated by the oil industry, economic revival has been observed in the country. Not surprisingly, a large portion of Azerbaijani population is employed by the companies started after 1995. During the time period between 2003 and 2015 there had always been an increase in oil prices, with an exception of a short decline period in 2008-2009. In 2003-2015, during the period of high oil prices in the global markets, there was a boom in the construction industry; and large-scale state level projects were implemented in Azerbaijan. The buying power of the population was quite high. For this reason, the local businesses, making an ever-increasing profit, did not see any issues with their management system. The drastic fall in oil prices in 2015, resulted in The Central Bank of Azerbaijan switching to the floating exchange rate regime. Because of a steep devaluation, US dollar saw a rise from 0.78 to 1.70 manats. This resulted in a change in the population's income, which, in its turn, caused a change in the purchasing behavior of the customers. Consequently, the businesses suffered a significant loss of income. The crisis has revealed some critical issues in the management of the local businesses. The following problems have been identified:

- *Incorrect operation of a company's management system.*
- *Poor management of storage for finished goods and raw materials.*
- *Failure of a timely renewal of a product portfolio.*
- *Lack of price strategies.*

Business owners have started the implementation of reforms in the management shortly after the crisis. These include the following:

- *Recruitment of professional managers.*
- *Recruitment of consultants to make changes in the management structures.*
- *Studying the experience of the world's leading companies.*
- *A close collaboration with universities.*

Keywords: *Azerbaijan's exports, Steep devaluation, Business Environment of Azerbaijan s, Low oil prices, Azerbaijan's economy and business*

1. INTRODUCTION

Over the past decade, Azerbaijan has been amongst the top countries in terms of the economic growth rate. With the income generated through the successful oil strategy, the infrastructure

has been modernized, non-oil sectors have been developed, the social well-being has been improved, the state assets have been increased, and the strategic currency reserves have been accumulated in excess of GDP volume. As a result of the sharp fall in oil prices of 2014, Azerbaijan and its major trading partner countries were hit by a crisis. This caused an economic slowdown in the country. (Strateji Road Map, p. 4) The balance of payments and non-oil budget deficits were created. The decline in financial and banking sectors has led to a necessity of transition to a new economic development approach. By focusing on new "high-end" sectors, which will ensure sustainable development, the structure of economy will be re-balanced through higher growth of non-tradable sector versus tradable sector, processing versus production, private business versus public business, high technology intensive sectors versus low technology intensive sectors, sectors based on highly qualified labor versus low qualified labor, high return markets versus low return markets and high value added generating sectors versus low value added generating sectors. The structure of national economy may be renewed through the improved business environment, establishing fiscal institutes within medium term expenditure framework, recovery of the financial and banking system and improvement of the monetary system based on floating exchanges rate, as well as enhanced access to foreign markets.

2. EXISTING MACRO ENVIRONMENT IN AZERBAIJAN

According to 2017 statistics, Azerbaijan's exports were valued at US $15 billion. This puts Azerbaijan at 76th spot among 224 countries in the world (Azerbaijan Statistic Committee). Oil contributes 90% of all exports. Thus, oil prices in the global market have a significant effect on the economy of Azerbaijan. The Azerbaijani economy will develop in an environment exposed to the effects of various changes in the medium and long-term perspective. Observing and understanding such effects is crucial to coping with the difficulties that they cause and exploiting the benefits they have. While the probability of occurrence of unpredictable processes is high, the first signs of some of the global trends that will be affecting the global economy over the next decades have already been seen. It is expected that four of these effects will be important for Azerbaijan: displacement of the global economic power center to emerging markets in Asia, significant impacts of technological innovations, changing geopolitical configuration, and oil and gas prices. Over the past years, oil prices have fallen and volatility in the prices has risen: while the price per Barrel was close to US $150 in 2008, it dropped even below US $30 at some point in 2016. (Source: Economist Intelligence Unit) Such a global decline in oil prices has had an impact on the Azerbaijani economy. Hence, according to The State Statistics Committee of Azerbaijan Republic, the rate of economic growth in 2010-2014 slowed down and amounted on average to 2.7% a year. Decline in the state budget revenues and the volume of exports in 2015 resulted in an increase of unemployment rate by 2% compared to the previous year. Due to low oil prices, the tensions on the Balance of Accounts increased pressure on manat exchange rate and in 2015, the national currency suffered a twofold devaluation. The forecasts reveal that the growth in global oil demand will decrease annually by approximately 0.7% by 2050 (30 percent less than the previous forecasts indicated) and the share of fossil fuels in the overall energy sector will decline. Under these conditions, oil prices are not expected to return to their previous high levels. Thus, it will not be feasible to restore sustainable growth with oil revenues in the near future. The International Monetary Fund predicts that Azerbaijan's economy will grow by 2-3% per year by 2025. This tempo is consistent with the observed growth rate over the past few years. However, this low level of growth is not sufficient to reach the goals of the economy, including the creation of jobs for the current and future generations. Therefore, under the conditions of low oil prices, Azerbaijan will achieve higher rates of growth by laying new foundations for the economy (Strategic Road Map, p.6).

As the potential of the oil and gas industry is weakening, the countries rich in natural resources, like Kazakhstan, Saudi Arabia, and Russia, face difficulties and seek to diversify their economies. The same situation exists in Azerbaijan. The country has strong political will and means to further strengthen its positions in the global economy on the basis of its base created over the past decade.

3. BUSINESS ENVIRONMENT OF AZERBAIJAN

In order to reduce the negative impact of low oil prices on the business environment, the Azerbaijani government has prepared a Strategic Roadmap on National Economic Perspectives. Improvement of the business environment in the country is a major topic of the document. However, in the globalizing world, domestic businesses operate under the competitive environment. Competitiveness depends on the company itself. Under the conditions of high oil prices business owners in the country felt very comfortable. In the past, Azerbaijani business could be characterized with the following words: "fast, uncontrolled and dangerous growth". Companies used to grow geographically, financially, and physically; this was dangerous because human resources, the most significant investment in business, did not grow at the same pace. The issue was that companies could not digest their growth. As a consequence, the short-term success of the firms was the reason of their long-term failures. As a result of sharp decline in oil prices in 2015, businesses came to realize that, besides sales and accounting, there are other strategic areas such as human resources management, motivation, relationship with customers and individual approach to them. Therefore, business owners have begun to hire more professionals. Fortunately, the role of management of human resources in companies has been increasing (Strategic Road Map, p.9). While earlier HR's role was only being involved in the most primitive forms of recruitment and meeting the needs of the sales department, these days HR has already started to occupy a worthy place in many companies. The characteristics of managers have started to change: today's business manager is an expert who can focus on issues such as efficiency and productivity, has the ability to maximize the profit with the resources available as well as unite the team with his/her leadership skills. The focus of all these alterations is customer. In his famous "The Competitive Advantages of Nations", Michael Porter wrote, "A nation's companies gain competitive advantage if domestic buyers are the world's most sophisticated and demanding buyers for the product or service. Sophisticated, demanding buyers provide a window into advanced customer needs; they pressure companies to meet high standards; they prod them to improve, to innovate, and to upgrade into more advanced segments. As with factor conditions, demand conditions provide advantages by forcing companies to respond to tough challenges". Today's Azerbaijani consumers can be characterized as follows: "rational, demand the best quality and service for their payment, knowing their rights and how to demand them". In a period of increasing competition, companies have become more serious about closer cooperation with their customers and have become more active in their sales activities. One paradoxical point should be mentioned: during the periods when sales in the country were increasing, sales did not have a classic sense of sales, as our sellers did not sell; rather it was the customers who were willing to buy. These days, the situation has changed; and companies are not only creating active sales teams, but they are also checking how effective these specialists are. The approach of businesses to the topic of profit has also changed, meaning that they do not just work on increasing the profits, but control the costs as well. Moreover, this is an infinite process since there are always possibilities to optimize expenses, which is one of the key priorities of top managers. The businesses began to understand that the strategy of the company should not only be based on short-term goals, as long-term objectives and a strong team that has gathered around the same values are needed (Fakhri Aghayev, 13 February, 2018). There is a saying that: İf there were no crises? They world have to be created.

In Chinese, the word "crisis" can be expressed with two characters: danger and opportunity. Along with the damage it has inflicted, the decrease in oil prices has had a positive impact on the business development in the country. Due to the lower sales of the companies, the business owners were forced to move out of their comfort zones. The crisis gave business owners expensive but positive lessons. It has considerably extended the lifetime of surviving companies. Positive lessons learned from the crisis can be summarized as follows:

1. Companies began to value their customers more since they realized that it was becoming increasingly difficult to find new customers in the shrinking market; and thus, they became content with the existing ones. As a result, many of the businesses started to invest in CRM programs and systems.
2. Awareness of rationality, cost optimization, and efficiency was raised at both the company and individual levels.
3. The companies realized that the competition they face during the crisis could be turned into their own advantage.
4. Business owners understood that the crisis has not really started with the decline in oil prices and devaluation. The actual crisis began because they were not ready
5. It is more difficult to make a real difference in the market when everyone is in good condition. In this sense, crisis is an opportunity for those companies who can make a difference.
6. The crisis broke down the stability syndrome in many companies. They had the chance to make radical changes that they could not make for a long time. Conservative workers have accepted those changes more willingly.
7. The crisis has once again confirmed that business models required by a modern business environment are needed. More traditional, obsolete business models are more prone to failure during critical times.
8. The companies have come to the realization that it is necessary not to delay building a sustainable system. In the crisis, only the companies with sustainable systems started applying for business consulting.

In the book, Navigating Through Crises: A Handbook for Boards, created by the IFC in 2010 it is stated that good corporate governance may be of great value to any organization's ability to prevent negative events from affecting the company or escalating to a crisis or disaster level. Crises have many causes, sometimes external, sometimes internal; some come suddenly, while others evolve over time; some affect whole economies and others only a specific company or even just one department or business unit. It would be hubris to claim that good corporate governance can prevent all corporate crises. But a good board of directors can at least help a company minimize its risk by doing the following:

- Setting the right strategy with an appropriate risk appetite for the company (e.g., an investment bank has a very different risk appetite than a retail bank).
- Overseeing the implementation and execution of risk-management systems.
- Scanning the environment and understanding the drivers of business in order to help detect and comprehend crises earlier.
- Ensuring better preparedness and more robust response to crises (e.g., through the creation and testing of crisis-response plans).
- Demonstrating leadership in thinking through better decisions and avoiding panic.
- Eliminating certain reasons for internal crisis (e.g., by having a CEO succession plan in place in case of a sudden departure).
- Giving external stakeholders, especially investors and employees, confidence in the future of the company. (IFC, 2010, p 11)

4. SUMMARY

The development of management in Azerbaijan may be conditionally divided into two periods: before and after serious changes in the economy of Azerbaijan. Before the crisis, the country's economy was rapidly growing, which naturally influenced the management in the country. Until 2015, management had three key features. The first one is volume of operations. The managers were accustomed to making transactions with large amounts of money. The second feature was that top managers paid attention only to the profitability of the activity and the costs were usually a secondary matter. This resulted in the productivity being damaged. Another major feature of the Azerbaijani management was the delusion of success. Successful outcomes of the management led to them being in their comfort zones. Changes in the economy have had a direct impact on the business and management style in companies. Nowadays, the concept of productivity is at the forefront. Secondly, the managers began to realize that the most important capital of the company is the human capital and started to focus more on this issue. At the same time, Azerbaijani businesses became more attentive to their clients and potential consumers. The leaders understood that the consumer had an impact on the success of businesses. Most importantly, the businesses started to attract professionals for HR, marketing, and communications with consumers. It is safe to conclude that the crisis is not related to the external environment. Sometimes it stems from the management of companies. The drop in sales in Azerbaijani companies was associated with a decline in oil prices and devaluation. However, when the company heads came out of their comfort zones, they realized that the crisis for them had begun long before the drop in oil prices: 1) Most of the capital remained in the form of finished products and raw materials. 2) Failure of a timely renewal of a product portfolio that resulted in customers not buying products since with reduced purchasing power, demands of the customers for a product are higher than before as they want to spend the money on more useful products. 3) Ignoring cost optimization. 4) Lack of pricing strategies. Low oil prices forced business owners from Azerbaijan to get out of their comfort zones they were so used to. They reinforced the control over company structures, process and procedure updates, and ensured proper operation not just on paper but in practice as well. They aimed to keep the raw materials and finished products in their warehouses at a minimal level. In this regard, they started studying and applying Just in Time and Lean Production systems. Large domestic companies established collaboration departments with universities. These departments are closely cooperating with the institutions in the nation. Selected university students are offered internships at these companies. Universities, in their turn, initiated practice classes of the large companies. Currently, most such classes are at UNEC. To sum up, low oil prices have had both negative and positive influence. The fundamental problem of the companies was management issue. Under the conditions of high oil prices, due to the lack of financial complications, they were not able to recognize the problems with management. Since 2014, a new stage for Azerbaijan's economy and business has begun. This new stage shaped favorable conditions for companies to become stronger, more durable, and competitive in the future. These qualities carry enormous significance, since, in this globalizing world, the competition is also intensifying.

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THE PLACE AND IMPORTANCE OF DOMESTIC TOURISTS' PERCEPTUAL MAPS IN TOURISM MARKETING

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ABSTRACT

Recently, great importance has been attached to the development of domestic tourism along with international tourism by the countries throughout the world. Because domestic tourism is a very important factor both for the mobility of the economy and for the development of the sector. In this regard, Azerbaijan, having strong tourism infrastructure, has taken a number of important measures to further develop domestic tourism in recent years. The peculiarity of perceptual maps is that they provide a visual representation of the market to the decision maker. Perceptual maps are a tool needed by the businesses to recognize their competitors, identify their positions in the market, and see the gaps in the market. The main purpose of the research is to investigate Azerbaijan's domestic tourism potential in different regions, how these regions that have already proved themselves in the field of tourism are positioned as a brand and, most importantly, how this positioning is assessed by the residents of the country traveling within it. The research revealed that Azerbaijan, proved itself in the field of tourism in recent years, has a strong domestic tourism potential. Especially, there is a strong competition for leading positions in the market among the regions, tourist destinations of the country. For this purpose destinations are trying to position their products in the best way possible, to create a positive image in the minds of tourists and to attract more and more tourists. However, the research revealed that although the leading destinations in the country tend to turn their products into a popular brand and maintain a proper positioning policy, their positions in the minds of tourists are somewhat different. When choosing destinations, tourists who pay more attention to service say that the service in certain destinations of the country is not at the desired level, that is, unsatisfactory, but the prices are slightly higher.

Keywords: *Destination, Domestic tourist, Perceptual maps, Positioning*

1. INTRODUCTION

For many years now, domestic tourism has started to come to the forefront in developing countries. According to the World Travel and Tourism Council, 7 out of every 10 dollars spent on tourism are spent domestically. This means that in most countries around the world, the money spent by local citizens is a much more important source of Travel and Tourism GDP. Some countries also use domestic tourism as a means of supporting international tourism. Domestic tourism has less sensitivity to crises. There is also a great deal of social and cultural benefits of domestic tourism, as it allows people to get closer to their country's history and culture. In addition, the development of domestic tourism significantly stimulates the employment in the country. Thus, the benefits of domestic tourism to the country's economy are countless. The unique climate, flora and fauna of Azerbaijan, as well as the ancient history and architectural monuments and modern buildings that meet world standards, allow us to say that there is a strong tourism potential here. Along with international tourism, domestic tourism is also experiencing its period of prosperity in Azerbaijan, as in other developing countries. One of the main reasons for this is the strengthening of tourism infrastructure, introduction of new

tourist destinations and creation of a strong network of tourist routes in the regions, along with the capital Baku as a result of adoption of the "State Program on Socio-Economic Development of Regions of the Republic of Azerbaijan" in 2004. The opening of Shahdag Winter-Summer Tourism Complex, which is distinguishable from its competitors in the world by its uniqueness in 2011, and the introduction of Tufandag Winter-Summer Tourism Complex, which is not behind it for its popularity, are also among the most important steps. As a result of these events, tourist destinations of Azerbaijan have already become brands.

2. POSITIONING AS AN ELEMENT OF DESTINATION MARKETING

Positioning should be in the same direction or the services should be formed in the same direction that a destination wants to be known, recognized and remembered for. The first thing to do with destination positioning is to decide on the desirable and the most relevant position possible for the destination and to make an effort to determine what that destination means (du Rand and Heath, 2006).

2.1. STP and positioning

A marketing strategy consists of three vital components: segmentation, targeting and positioning (STP). Companies can produce revolutionary products or services while trying to create a space for themselves in the market. However, that is not enough. They also need to carefully identify who, among the population, would purchase this product or service, and what they expect from such shopping. A well-executed and implemented STP program will help the company to produce the right marketing mix - to sell the right product at the right place at the right price and in the right way (Natter and others, 2008). In order to apply STP, first, the customer is determined, then the customer to be served and finally the positioning to be used in communication to better present the product and make it stick in mind (Buhalis, 2000). Positioning of a tourist destination is the expression that describes the position in which the destination is when compared with similar destinations in regional, national and international scale. The purpose of this process is to create a unique image for the potential customers. Additionally, positioning is defined as one of the stages of destination branding. According to Pike and Ryan, the effective positioning in the customer's mind provides an advantage for the destination, as it facilitates the decision-making process of tourists and helps customers link the core attributes to the destination (Pike and Ryan, 2004, p. 3-4).

2.2. Positioning tools and period

The key marketing tools used to do positioning are product qualities, brand, packaging, price, consumer features, product usage areas, image, competitive products, distribution method, perceived value, tools used to position the product in the consumers' minds (Buhalis, 2000). Specific qualities and benefits of the product include its taste, quality, healthiness, durability, reliability, prestige, luxury and so on (Pike and Ryan, 2004). During the positioning process, targeted market structure, consumers' profiles should be reviewed and consumers who have different wants and needs should be divided into segments to ensure that they get the best benefit and satisfaction from the brand. During the positioning process, the brand-owner company must recognize the competitors, know how and by which consumers the competitors are perceived and recognized, and determine the wants and needs of the consumers along with the competitors' brand positioning activities (Pike and Ryan, 2004, p. 5-6).

3. PERCEPTUAL MAPS

Companies that want to successfully position their brand should know its position in the market and in the minds of the consumers. Although a number of measurement methods are used for that, the most widely used ones among them are perceptual maps.

The peculiarity of perceptual maps is that they provide a visual representation of the market to the decision maker. Perceptual maps are a tool needed by the businesses to recognize their competitors, identify their positions in the market, and see the gaps in the market. (Li and Stepchenkova, 2016, p. 3).

3.1. Perceptual maps and their benefits

After positioning activities, businesses should identify, analyze and evaluate how their products or brands or their competitors' products or brands are perceived and positioned in the minds of the consumers. By doing so, they can evaluate whether the strategies they apply to distinguish and position their products or brands in the consumer mind are correct or not. For this purpose, businesses mainly use a perceptual map, one of the most important methods of measurement and analysis (Li and Stepchenkova, 2016, p. 4). Perceptual maps help marketers determine which features of the market brands are more perceivable and important for the consumer and why they are purchased when compared with the competing brands. Perceptual maps represent the visualization of the results obtained by comparisons of the product or services of the companies targeting the same market segment by a group of consumers who are capable of representing the real and potential consumers that form a particular market segment (Claveria, 2016).

3.2. Creating perceptual maps

Use of information that reflects the consumers' thoughts by gathering together for many features forms the basis of the perceptual maps. Perceptual maps are the tools that show the correlational positions, similarity and proximity of the variables such as product, service, brand, destination or business in the coordinate system and they are used whenever there is a need for correlational visual contact information of the variables. Perceptual maps provide a visual illustration and visual understanding of mixed information that contains multiple factors and multiple variables on the maps (Li and Stepchenkova, 2016, p. 4). Since it is a concept that shows the relationships between the variables, similar variables that are likely to be in the same group are closely labeled and variables that are not similar to each other are placed in different groups and away. Thus, perceptual maps enable businesses to see their positions in comparison with competitors' positions, densities and gaps in the marketplace. These maps can reflect the comparisons with two or more dimensions, but these dimensions are decreased to two in terms of clarity and visuality (Claveria, 2016).

4. MEASURES USED İN THE RESEARCH

Questionnaire survey on Azerbaijani tourists' thoughts consists of thirteen questions in total. The first five questions have been asked to determine the demographic characteristics (sex, age, marital status, educational qualification and monthly income) of those surveyed. The next five questions are the questions asked to get the information on the number of trips made by the survey participants within the country, the factors that affect their travel choice, the first three regions come to their mind when they hear about going on holiday and the three regions they most recently went on holiday within Azerbaijan. The last three questions are the evaluation of the seven destinations surveyed directly on particular criteria.

4.1. Analysis of the data and illustration of the results using perceptual maps

Demographic characteristics of the survey participants, such as sex, age, marital status, educational qualification and monthly income are summarized in the following tables.

Table following on the next page

Table 1: Gender distribution of survey participants

	Frequency	%
Female	113	56.5
Male	87	43.5
Total	200	100

(Table has been created by the authors)

As shown in the table, a total of 200 people participated in the survey, of which 56.5% were women and 43.5% were men. It is clear that there is not a big difference in the number of participants in terms of gender.

Table 2: Age range distribution of survey participants

	Frequency	%
18-25	54	27
26-35	63	31.5
36-45	40	20
46-55	32	16
56 +	11	5.5
Total	200	100

(Table has been created by the authors)

As can be seen from the table, 54% of respondents are in 18-25, 63% in 26-35, 40% in 36-45, 32% in 46-55 and 11% in 56+ age groups.

Table 3: Monthly income distribution of survey participants

	Frequency	%
0-300 $	59	29.5 %
301-600 $	75	37.5 %
601- 900 $	38	19 %
901-1200 $	21	10.5 %
1201 + $	7	3.5 %
Total	200	100 %

(Table has been created by the authors)

It is shown in the table that 29.5% of the respondents have monthly 0-300 USD, 37.5% 301-600 USD, 19% 601-900 USD, 10.5% 901-1200 USD, 3.5% 1201+ USD income.

Table following on the next page

Table 4: Information on the trips made by the survey participants within Azerbaijan

		Frequency	%
How many times have you travelled throughout Azerbaijan?	1	3	1.5 %
	2	7	3.5 %
	3	13	6.5 %
	4	20	10 %
	5+	157	78.5 %
2. With whom have you travelled within Azerbaijan?	With family	173	86.5 %
	With friends	156	78 %
	With girlfriend/boyfriend	0	0 %
	With fiancee/fiance	0	0 %
	Alone	9	4.5 %
	Other	0	0 %
ors influencing your choice of destination	Service quality	123	61.5 %
	Price	176	88 %
	Variety of entertainment venues	111	55.5 %
	Brand	**119**	**59.5 %**
	Image	113	56.5 %
	Friend or relative recommendation	F162	81 %
	Advertisements	31	15.5 %
	Hospitality of local people	31	15.5 %
	Richness of cuisine	47	23.5 %
	Other	20	10 %
Total		200	100 %

(Table has been created by the authors)

It is clear from the respondents' answers that 1.5% of them have been travelled within Azerbaijan once, 3.5% twice, 6.5% 3 times, 10% 4 times and 78.5% having the most important indicator and being significantly different from the other indicators have been travelled within the country more than 5 times. 86.5% of the respondents prefer to travel with their family, 78% with friends, and 4.5% to travel alone. No one travelled with a fiancee/fiance or a girlfriend/boyfriend, and the other option has not been answered. The quality of service factor affects to their destination choice 61.5%, price 88%, variety of entertainment venues 55.5%, the fact that this destination is a brand or not 59.5%, confidence in that brand 56.5%, friend or relative recommendation 81%, advertisements 15.5%, hospitality of the local people 15.5% and richness of the cuisine 23.5%. The other factors affect 10% and they are marked as nature and distance.

Table following on the next page

Table 5: The score given by an average tourist for the quality of service in each region (Table has been created by the authors)

Regions	The score given by an average tourist for the quality of service in each region
Gabala	4.49
Guba	4.355
Sheki	4.245
Gusar	4.23
Ismayilli	3.81
Ganja	3.475
Nakhchivan	3.3
Regions	The score given by an average tourist for the price in each region

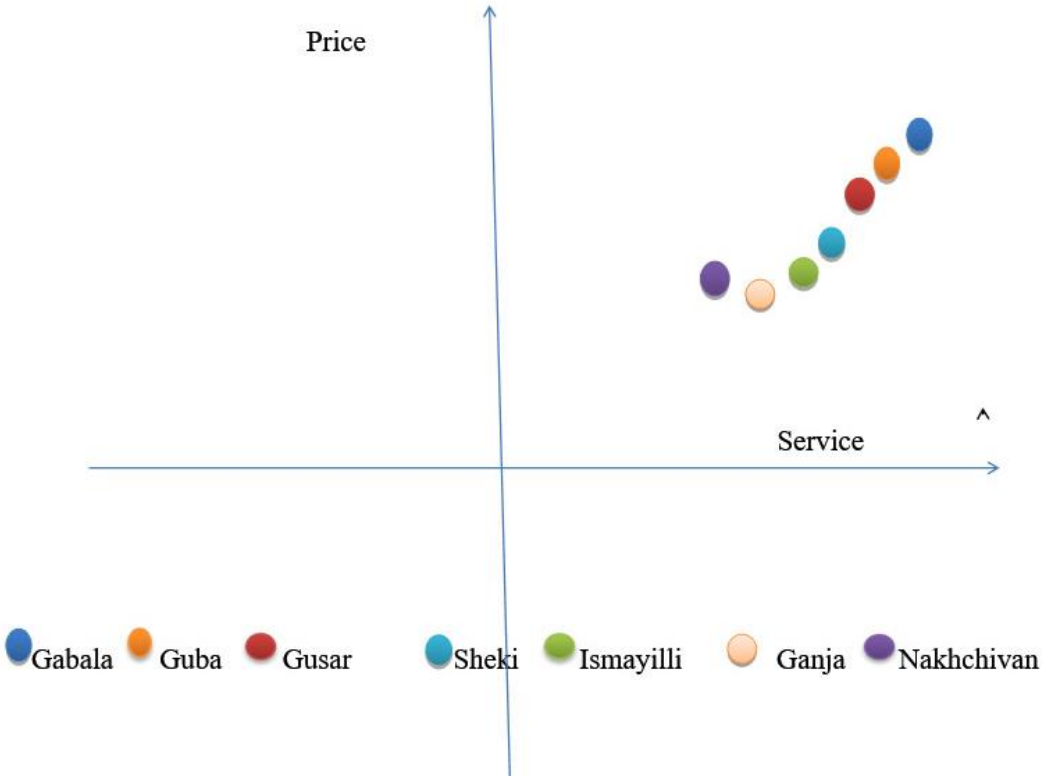
Table 6: The score given by an average tourist for the price in each region

Gabala	**4.63**
Guba	4.45
Gusar	4.23
Sheki	3.88
Nakhchivan	3.555
Ismayilli	3.26
Ganja	3.05

(Table has been created by the authors)

It is also clear from the tables that there are certain differences between the quality of service and price rankings in each region. The visual description is shown on the perceptual Figure 1.

Figure 1: Evaluation of the seven regions by the survey participants for the quality of service and price



(Figure has been created by the authors)

Table 7: The first three of the seven regions (Sheki, Gabala Ismayilli, Guba, Gusar, Ganja, Nakhchivan) that tourists want to go on holiday in the summer

For summer rest	Frequency	%
Guba	99	49.5 %
Sheki	96	48 %
Gabala	94	47 %
Gusar	91	45.5 %
Ismayilli	82	41 %
Ganja	78	39 %
Nakhchivan	60	30 %

(Table has been created by the authors)

Table 8: The first three of the seven regions (Sheki, Gabala Ismayilli, Guba, Gusar, Ganja, Nakhchivan) that tourists want to go on holiday in the winter

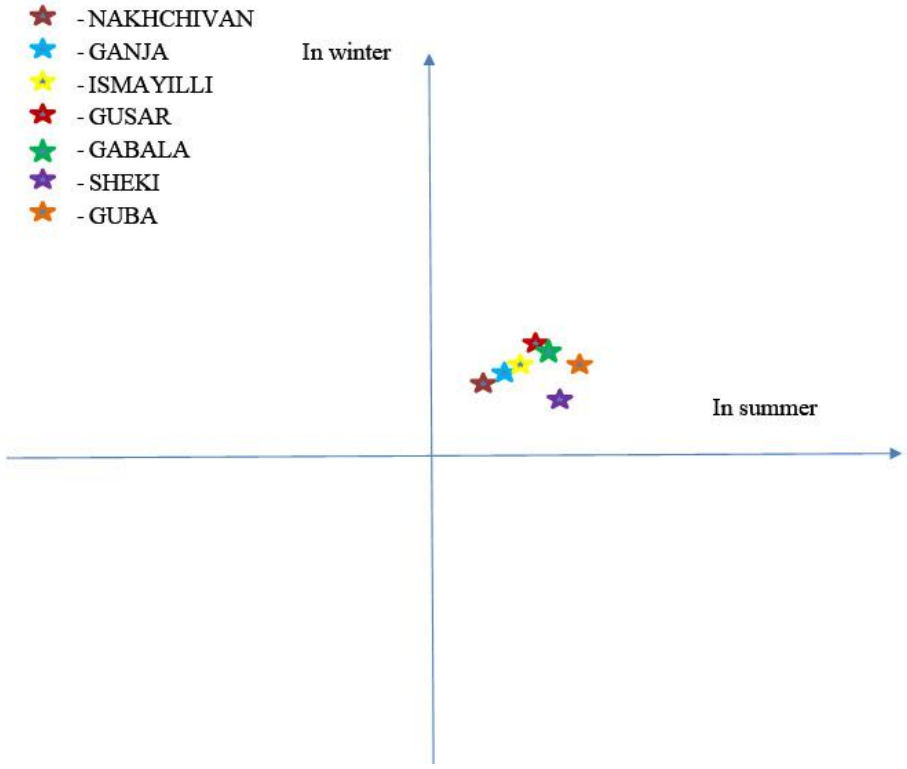
For winter rest	Frequency	%
Gusar	107	53.5
Gabala	94	47
Guba	87	43.5
Ismayilli	83	41.5
Ganja	79	39.5
Nakhchivan	77	38.5
Sheki	73	36.5

(Table has been created by the authors)

As it is clear from Table 7 and Table 8, in the summer the tourists firstly want to go on holiday respectively to Guba (99%), Sheki (96%) and Gabala (94%) and in the winter to Gusar (107%), Gabala (94%) and Guba (87%). The other indicators are noted in the tables. Also, the indicators of those who want to go on holiday to all the regions in the summer and winter are described on the perceptual Figure below for a comparative analysis.

Figure following on the next page

Figure 2: The choice of the survey participants among Sheki, Gabala, Ismayilli, Guba, Gusar, Ganja and Nakhchivan to go on holiday in the summer and winter



(Figure has been created by the authors)

5. CONCLUSION AND RECOMMENDATIONS

The research revealed that Azerbaijan, proved itself in the field of tourism in recent years, has a strong domestic tourism potential. Especially, there is a strong competition for leading positions in the market among the regions, tourist destinations of the country. For this purpose, destinations are trying to position their products in the best way possible, to create a positive image in the minds of tourists and to attract more and more tourists. But one of the most important factors for that is to know the thoughts of the local tourists travelled within the country. Because a destination owner can position his touristic product as he wishes, but the key thing is what this product means to the tourist, as a result the one who is using this product is the tourist himself. However, the research revealed that although the leading destinations in the country tend to turn their products into a popular brand and maintain a proper positioning policy, their positions in the minds of tourists are somewhat different. When choosing destinations, tourists who pay more attention to service say that the service in certain destinations of the country is not at the desired level, that is, unsatisfactory, but the prices are slightly higher. Also, the research found that most destinations have been developed on a high level for summer tourism, but the number of the destinations developed for winter tourism is few. In some regions there is a need to create a strong winter tourism infrastructure and attract more tourists to the region. The suggestions to eliminate the problems encountered are as follows:

- An effective management system should be created to fully utilize the domestic potential, existing opportunities of Azerbaijan.
- To have the desired position in the market, to conduct a strong positioning policy in order to gain advantage over competitors and most importantly, to know the outcome of this positioning, it is necessary to learn about the opinions of the tourists and to know their feedbacks.

- The quality of the service should be increased. To achieve this, personnel shortage problem, one of the most actual problems should be solved. Although a number of measures have been recently implemented in this area, this problem has not been completely eliminated. Carrying out more awareness activities for the solution of the issue, launch of educational institutions and paticipation in the important training and seminars held abroad can help solve this problem.
- Strong mechanisms should be used to create a balance between services and prices, and appropriate analyzes should be made.
- In order to meet the growing demand of tourists and to fulfill their desires, types of tourism should be increased and new types of tourism should be developed.

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REFRAMING PRACTITIONER DEVELOPMENT: A TRANSDISCIPLINARY APPROACH ON COMPUTER SUPPORTED COLLABORATIVE LEARNING IN ORGANIZATIONAL LEARNING AND DEVELOPMENT

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ABSTRACT

Within the context of the fourth industrial revolution the global labor markets are undergoing major transformation, characterized by growing skill instability, and a reskilling imperative. This together with the way practitioners interact with and consume information in the workplace, and the distinct trends showing how employees are learning differently, as well as the dramatically changed expectations of the digital learners demanding an effortless learning experience, challenges the classical ways Learning Development Organizations address professional practitioner development. Digital technology and Computer Supported Collaborative Learning (CSCL) on the other hand provides a series of new affordances that enable learning process designers to virtually scaffold the Post-Experiential practitioners learning (Szoboszlai, Velencei, Baracskai, 2014). For this to happen it is argued that the introduction of technologies is not enough in itself, a series of paradigm changes are also needed. Technology can be, and is used in didactical pedagogy as well, but this talk explores how in order to become the truly efficient scaffold of the digital learners' collaborative learning process and capitalize on its the affordances, a fundamental change in pedagogy - from didactic to a reflexive - is also needed. The novelty of the presentation lays in suggesting a transdisciplinary approach to computer supported collaborative knowledge-building, compared to the classical multi- and interdisciplinary approaches. Different definitions of transdisciplinary are presented and is argued that in order to maximize the affordances presented by digital technologies and becoming valuable artificial complements to the practitioner intelligence, the research of computer supported collaborative (CSCL) should transcend the disciplinary and interdisciplinary levels. It is further argued that due to the complexity of the problem, solutions should be investigated not within the realms of educational technologies, cognitive computational sciences and organizational learning management but transcending them, new points of convergences related to practitioner learning should be defined, and thematic knowledge integration tentative validated based on (1) consistency, (2) relevancy, (3) applicability.

Keywords: *Computer Supported Collaborative Learning, Professional Practitioner Development, Technology Enhanced Learning, Transdisciplinarity*

1. INTRODUCTION

Classically, professional practitioner experts are trained within their profession's standards of education – guaranteed by accredited educational institutions - with the particular knowledge and skills necessary to perform their specific role within their profession. They are expected to perform their work applying the acquired knowledge in accordance with the strict codes of

conduct, and professional standards of practice and ethics for their particular field which are typically set and maintained through widely recognized professional associations. However, the rapid pace of knowledge production has altered the context for professional training and work as well, practitioners of today are invited to engage in knowledge practices in ways that go beyond contexts of application. They participate in activities related to exploring, testing, validating, archiving and sharing knowledge. For instance, professionals are increasingly involved in documenting practices to safeguard the continuity and quality of work (Callon, 2002). This undertaking is often not a straightforward process but requires a critical focus as well as analysis of recently performed tasks. It typically involves the intellectual and analytical practices and engagement characteristic of knowledge-intensive work (Alvesson, 2004). Also included are responsibilities for selecting, validating and in other ways safeguarding knowledge in the context of everyday work, for keeping issues open to investigation, and for taking active steps to explore opportunities for improvement. Rather than leading to a sense of subjugation or deskilling, the requests for performativity and accountability described above may facilitate active engagement with knowledge, thus providing the grounds for a contemporary form of professionalism. Therefor practitioners "in the face of multiple kind of knowledge and stamp of uncertainty are charged with solving problems and safeguarding individual interests. Never has their potential access to knowledge and information richer and - paradoxically- never has their collective knowledge been subject to greater challenge" (referenced by Jensen, Lahn, Nerland eds.), 2012). In these conditions it is necessary to understand the dynamic interplay of epistemic cultures and practices to understand contemporary conditions for professional practitioner learning. On the other hand, the way practitioners interact with and consume information in the workplace and their expectations have dramatically changed as well. Based on a Learning and Development Digital Learner Survey (CEB, 2016) conducted in 2016 by Gartner with 24,000 employees globally, the above mentioned changed expectations translated to learning showed some distinct trends in how employees are learning differently. One major finding was that "Employee expectations and behaviors regarding organizational learning distinctly mirror their experiences in digital channels outside of work (L&D Digital Learner Survey, 2016)**.** This new "Digital Learner" is: Empowered: 76% of employees report that they will do what they need to do to learn effectively; Networked: 69% of employees regularly seek out new ways of doing their work from their coworkers, and Impatient: 66% of employees expect to learn new information "just-in-time." Overall the learning application is mostly impacted by the effortlessness of the learning experience. While traditionally content creation and efficient training organization is the main focus of Leaning and Development organizations, based on these findings a paradigm change is needed in workplace learning where focus is shifted from content creation and making the training organization process more efficient, to minimizing the effort required of learners to develop by providing relevant and just in time applicable-to-job-situation content, easily accessible knowledge, and user friendly easily consumable materials. Apart from these new trends disrupting the classical way of organizing professional practitioner learning in organizations, there seems to be an urgency and magnitude change in the requirements for re and upskilling of learners in organizations. According to a state-of-the-art Future of Jobs Report 2018 (World Economic Forum, 2018) containing the views of 313 business executives—principally Chief Human Resources Officers (CHROs), representing more than 15 million employees, the vast majority of employers expect that, by 2022, the skills required to perform most jobs will have shifted significantly, widening the skill gaps. Based on a metric introduced by the report called Global average skills stability and defined as the proportion of core skills required to perform a job that will remain the same, expected to be about 58%, the report forecasts an average shift of 42% in required workforce skills over the 2018–2022 period. Based on the finding of the above-mentioned report by 2022, no less than 54% of all employees will require significant re- and upskilling in the workplaces.

Of these, about 35% are expected to require additional training of up to six months, 9% will require reskilling lasting six to 12 months, while 10% will require additional skills training of more than a year. This mass demand increase challenges the organizations' capacity of fulfilling its employees re and upskilling needs. The skills continuing to grow in importance by 2022 include analytical thinking and innovation as well as active learning and learning strategies, but are likely to change gurther together with the technology advancements positively affecting business growth. The four specific technological advance which are set to dominate the 2018–2022 period as drivers positively affecting business growth are: ubiquitous high-speed mobile internet; artificial intelligence; widespread adoption of big data analytics; and cloud "technology (World Economic Forum, 2018). Within this context of the knowledge society significantly challenging the different professions' classical modes of operation – a widely used term for this phenomenon is disruption - and requiring of them to reconstruct themselves in a manner which is more powerful in the emergent epistemic landscapes, does the present paper discuss embracing technology and constructing cultures for knowledge and learning which consider both the "unfolding" character of professional expertise in a complex world and address the high re and upskilling need of practitioners in organizations.

2. COMPUTER SUPPORTED COLLABORATIVE LEARNING (CSCL)

2.1. Computer Supported Collaborative Learning (CSCL)

Computer Supported Collaborative Learning is an emerging branch of the learning sciences which has fast risen in 'popularity and despite its young age it "is considered as one of the most promising innovations to improve teaching and learning with the help of modern information and communication technology (Lehtinen, Hakkarainen and Lipponen, 2013). According to a widely accepted definition Computer Supported Collaborative Learning (CSCL) is an interdisciplinary research field that includes a branch of the learning sciences and educational technology research concerned with studying how people can learn together with the help of computers (Stahl, Koschmann and Suthers, (2006). Research in CSCL focuses on learning as a cognitive and/or social process and studies learning designs, learning processes and pedagogic practices that support technology-mediated coordination, communication collaborative processes in communities of learners (Miyake, 2006). The new field of study is rooted in the concept and process of co-constructivist model of learning originating from the socio-cultural perspective of Vygotskyan theory (Vygotsky, 1962). Computer Supported Collaborative Learning (CSCL) embraces a virtual situated social learning perspective, where learning takes place through the interaction and transaction between people and their environments. Despite the fact that there is "no precise and widely accepted definition of co-construction in psychological and educational literature […] common to most theoretical contexts of co-constructivism are the implication of some kind of collaborative activity ". This collaboration from a situated cognition perspective, can be seen as having two or more individuals collaboratively construct a shared understanding, or a solution to a problem, which neither partner entirely and necessarily possesses beforehand (Chi 1996). It is in this social collaboration interactions that Computer Supported Collaborative Learning (CSCL) has a recognized tradition of generating insights about how to support collaborative learning with both hard and soft technologies (Thang, Tsai, Lin, 2014). In the cultural history of the Computer Supported Collaborative Learning (CSCL) study "large multilayer research efforts such as CSILE (later Knowledge Forum) (Hewitt, Scardamalia, 1998), and the Knowledge Integration Environment (Linn, Davis, Bell, 2004), or CAMILE and associated efforts (Guzdial, al. 1997). incorporated multidisciplinary teams of researchers that not only studied, but also designed, built, and enacted CSCL environments. Their work also highlights the designated place of the Computer Supported Collaborative Learning research as bridging the epistemologies of different disciplines.

2.2. Paradigm Shift Imperative

In order for the technology affordances to efficiently scaffold the practitioner professional learning a paradigm shift is needed. The learning architectural design changes can lift the former constraints of classical educational settings and "could support the most fundamental change in ecologies of learning since the invention of the modern school and its mass-institutionalization in the nineteenth century" (Cope, Kalantzis, 2016, p. 7), however without the paradigm change "technology has changed, but not in any fundamental way, the pedagogy. To say it again, technology is pedagogically neutral." (Cope, Kalantzis, 2015, p. 7) the introduction of technologies in learning is not enough in itself. The shift according to Cope and Kalantzis should happen from 'discursive form of didactic pedagogy' to 'reflexive pedagogy' fostered and enhanced by the architectural affordances and characteristics of educational technologies (Cope, Kalantzis, 2015, 2016). The first is characterized by "direct instructional guidance, balance of control of […] learning environment […] with the instructor, […] focus on cognition, […] long term memory […] of individual learner, […], demonstrate[d] replicate [ion of] disciplinary knowledge. The former having the following characteristics: "shift in the balance of agency between an instructor and a learner, where the learner has considerable scope and responsibility for epistemic action albeit within the frame of reference of an activity sequence that has been scaffolded by the instructor […], the focus is on the artifacts and knowledge representations constructed by the learner and the processes of their construction […], the focus is on the social sources of knowledge […], a wider range of epistemic processes. It is by this mindset change in pedagogy, Kalantzis posits, that the transformative opportunity which lays in the design of integrated learning technologies can act as a pull system mode and scaffold a 'person driven learning' in the context of "cognitive apprenticeship, whereby learners become increasingly accomplished problem-solvers given structure and guidance from mentors who scaffold students through coaching, task structuring, and hints, without explicitly giving students the final answers" (Hmelo-Silver, Duncan, and Chinn 2007: 100, 105). Reviewing the literature of the past decade on e-learning ecologies - a "metaphor because a learning environment is in some senses like an ecosystem, consisting of the complex interaction of human, textual, discursive and spatial dynamics- the research take a coherent, systemic form. Traditional classrooms, with their linear arrangement of seating and desks, their lecturing teachers, their textbooks, their student workbooks, their classroom discussions are also learning systems. Moving from one of these classrooms to another, the modes of interaction are familiar and predictable because they are so systematically patterned" (Cope, Kalantzis eds., 2016).Since the introduction of computer-mediated and online learning, a wide range of key educational technologies that emerged have been validated. (1) Learning management systems (examples: Moodle, MOOC platforms like Coursera, etc.) as well as (2) e-textbooks are widely used and accepted forms of learning in organizational settings as well. The new pedagogical method of (3) Flipped classrooms platforms, has been analyzed (Bishop and Verleger, 2013). (4) Different aspects of intelligent tutors, games and simulations have been analyzed (Aleven Beal, and Graesser , 2013; Conrad, Clarke-Midura, and Klopfer, 2014; Koedinger, et al., 2014), and (5) Discussion Boards have been studied (Speck, et al, 2014).(6). Web workspaces and e-Portfolios have been researched (Cope and Kalantzis, 2013; McCarthey, et al., 2014). (7). Adaptive, Personalized and Differentiated Instruction were studied (Koedinger et al., 2013; Shute and Zapata-Rivera, 2012; Wolf, 2010. (8). Machine Assessments. Cope, Kalantzis, McCarthey, Vojak, and Kline 2011). As seen above, the topic of technology and learning has seen an abundant research during the last decade, and vast amount of data has been produced on the role of educational technologies scaffolding collaborative learning. These researches address dominantly the topic from a pedagogical and/or computing technology point of view, looking at collaboration between teacher-and-student, peer-to-peer or computational technology point of view.

The vastness and consistency of the findings validate internally the subject of educational technologies supporting learning processes, and even though contextual differences should be taken into consideration - the majority of the researches were set in a non-organizational learning setting, which may open discussions regarding the relevance and applicability of the findings in professional practitioner development -, they can provide valuable insights for professional practitioner learning as well.

3. ADVOCATING FOR A TRANSDISCIPLINARY APPROACH

Being a problem focus discipline, Computer Supported Collaborative Learning (CSCL) cannot easily be "decompose[d] into existing traditionally disciplinary epistemologies. The problem itself could neither be called simply an engineering problem, or a psychological problem nor an educational problem, nor a system design problem" (Hoadley, 2009). In order for the technology affordances to scaffold the practitioner professional collaborative learning in a way that the challenges of capability development imperative of the knowledge age are efficiently addressed, the aspects of different disciplines or interdisciplines - transdisciplinarity can be complementary with (inter)disciplinary approaches –should be considered in such way, that what they pull in common goes beyond what each of them could have produced internally. Therefore, the quest for new solutions is transversal, and disciplines should be there to serve as knowledge bases located within the problem space. Due to the complexity of the problem and the investigated context, it should be investigated how to define new points of convergences related to practitioner learning that go beyond the existing thinking and confront existing presumptions or practices from new points of view.

3.1. Why Not Multi or Interdisciplinary

The epistemological knowledge source of both professional practitioner learning and development and computer supported collaborative knowledge creations is built on multiple disciplines. Organizational Learning and Development incorporates Human Resource Management - therefore Business Economics-, Cognitive and Motivational Psychology and Pedagogy. Computer Supported Collaborative Learning (CSCL) shares some of these epistemological backgrounds – pedagogy and Cognitive and Motivational Psychology – but has additionally a dominant Computational theory with close links to Neuroscience - therefore Biology. Insights into Cultural Anthropology on one hand and understanding Complex Systems on the other are also indispensable for the thorough understanding of these fields. In a disciplinary approach the problems of professional computer mediated practitioner re- and upskilling could be analyzed in only one of the above-mentioned disciplines, and would be limited to the discipline's own knowledge and epistemology level. However, the complexity of the problem transcends this. Studied in a multidisciplinary approach the research of the problem would still follow the disciplinary logic - where several objectives can be studied under several different perspectives – but to the objective breakdown a common objective would be added. However, the new problems that are being faced - also within the scope of this paper -, are due to the divisional interpretation of the reality. Practice shows the difficulties appear in the open spaces between the disciplines, and in some cases this can lead to the explosion of a discipline's classical frame and creation of new interdisciplinary disciplines. "Some fields […] develop epistemological strength anchored by shared thematic principles, unifying core concepts, and a new community of knowers with a common interlanguage." Interdisciplinarity builds bridges between two or more disciplines taking into account several perspectives so that reality can show itself in its full complexity. Interdisciplinarity is therefore viewed as a combination of different disciplinary knowledge and different methodologies and tools to resolve a common objective within the very scope or subject areas of the disciplines involved. An example of an interdisciplinary discipline is educational learning technologies which incorporates pedagogy,

cognitive and motivational psychology and computation. Resolve problems within the subject areas of the disciplines involved in an interdisciplinary field has also its limitations. Considering the professional practitioner learning optimization in the workplace which incorporates organizational management, pedagogy, cognitive and motivational psychology and computation, the problems that arise are resolved from a Learning and Development departments point of view which optimizes for enhanced organizational KPIs - increased training hours per employees while decrease training costs, fulfilling annual training plans, etc.- instead of focusing on employee capability development demands -building just in time, applicable skills required on the job -, thus fail to bring about lasting solution to the overall complexity of the problem.

3.2. Why a Trasdisciplinary Approach

Over the past few decades, many researchers have concluded that adequately addressing issues in the knowledge society requires a major transformation of research, away from disconnected disciplines toward socially engaged, transdisciplinary approaches. Despite the significant increase of the transdisciplinary terms' popularity in the last decades which caused a noteworthy broadening of its usage, the term is still ambiguous and difficult to grasp, its meaning being largely dependent on the field and purpose of research in connection with which it is used. The term was first mentioned in a major interdisciplinary typology published in 1972, created for an international conference held in France in 1970 and co-sponsored by the Organization for Economic Cooperation OECD (Apostel et al., 1972). This early definition offered by "The Nuffer Foundation in London identified two basic metaphors of interdisciplinarity – bridge building and restructuring. Bridge building occurs between complete and firm disciplines. Restructuring detaches parts of several disciplines to form a new coherent whole. The Foundation also noted a third possibility that occurs when an overarching concept or theory subsumes the theories and concepts of several existing disciplines, akin to the notion of transdisciplinarity (Apostel et al., 1972). Presently there are several major trendlines of definition that have gained attention since the 1980s, three major one are presented bellow shortly. A holistic approach to defining transdisciplinarity is the well-known approach of Nicolescu, B. founder of the CIRET (Centre International de Recherches et Etudes Transdisciplinaires). According to this, transdisiciplinary is the unifying principle for knowledge integration, which is determined by the universal formal structures or patterns at the bases of pluralistic processes and their dynamics." (Nicolescu, 2002, 2015). In his Manifesto of Transdisciplinarity and the essay ''New Vision of the World'', Nicolescu identified three pillars of transdisciplinarity: complexity, multiple levels of reality, and the logic of the included middle. In this holistic approach aiming to (re)integrate western scientific thinking with holistic spiritual thinking "transdisciplinarity offers some methodological guidelines for scholars. Following these guidelines, we (can) distinguish between various levels of reality (Nicolescu, 2010), similarly to Russell's logical types. On each level of reality, bivalent logic may be valid; however, transdisciplinary also transcends bivalent logic. This means that something and the opposite of something can hold true at the same time. Using the notations of logic this means that something can be A and non-A at the same time; Nicolescu call this third possibility T, the 'hidden third'. T is obtained by the synthesis of A and non-A, as Fichte did in his thesis-antithesis-synthesis cycle, and this is what we can see in the Taoist tradition of Yin and Yang. This synthesis enables moving between the levels of reality." (Nicolescu, 2010). Another holistic approach is the trans-scientific approach of Brier where the "core of the biosemiotics enterprise is to establish another inter and transdisciplinary wissenchaft than the received view of 'science'." (Brier, 2015) In his work on cybersemiotics, Brier presents "a tansdiciplinary approach to information, cognition, and communication studies, through an integration of Niklas Luhmann's Communication Theory with C.S. Peirce's Semiotics" (Brier, 2008).

Another major trendline of definition for transdisciplinarity, the one that is most prominent in Europe (Bergmann et.al, 2013), emerged from a Swiss and German collaboration at the end of the 1980s and beginning of the 1990s in environmental research. It is safeguarded by institutions like SAGUF (The Swiss Academic Society of Environmental Research and Ecology). At the conceptual bases of this type of transdisciplinarity definition is problem solving and integrates non-scientific knowledge and stakeholders in the process of problem solving . Transdisciplinary research in the German context is driven by solving societal, real-world problems, and emphasizes the usefulness of knowledge to addressing real -world issues as opposed to the search for fundamental scientific understanding. A third trendline is referred to in literature as the North American notion of transdisciplinary science and is connected with the broad areas such as cancer research, is defined, as a collaborative form of 'transcendent interdisciplinary research' that created new methodological and theoretical frameworks for defining and analyzing social, economic, political, environmental, and institutional factors in the health and well-being (Stokols et.al 2008). This trendline of transdisciplinary is referred to as encyclopedic understanding in the Swiss-German literature (Pohl, Hadorn, 2007). The transdisciplinary research approach suggested by this paper to reframe the professional practitioner development within the complex context of re and upskilling imperative, digital learners demand and other challenges posted by the knowledge society on the disrupted classical modes of profession operation is the Swiss and German approach, involving stakeholders from various disciplines to go beyond disciplinary boundaries and engage in a joint problem solving process in an attempt to explore and absorb new viewpoints. This paper proposes to use the term knowledge in a workspace environment in the definition proposed by Polanyi (Polányi 1962), in a post-experiential learning setting (Szoboszlai, Baracskai, Velencei, 2014), where the emphasis needs to be put also on how to become competent in the application of tools. According to Polanyi's original idea published in the frequently cited book Personal Knowledge (Polányi 1962), competence implies the ability of expertise within a certain domain and the ability to not only submit to the rules but also by reflection influence the rules creation of the domain or the tradition. Competence is thus not a property but a relation between individual actors and a social system of rules. Knowledge allows actors to generate a product or some other outcome. But knowledge is only a necessary and not a sufficient condition for capacity to act. In order to set something into motion or generate a product, the circumstances within which such action is contemplated to take place must be subject to control of the actors." (Bechmann, Gorokhov, 2009). Based on these definitions the value that resides in knowledge is connected to its capacity to set something in motion, and in order to do that an active actor is required who appropriates it by interpreting it, possesses the skills to act on it, while having the command of the situation. In this definition knowledge is (cognitive) doing. "It demands that something to be done in within a context that is relevant beyond the being in situation within which the activity happens to take place." (Bechmann, Gorokhov, 2009). Within this complex context a transdisciplinary approach may open up a series of new questions related to educational design in professional practitioner learning, for example if the scope of the learning, and the KPIs measuring its outcome are not the learning and assessment of the leaning in itself – which is the case in majority of the educational learning-, but the efficient application of the learnt material in very specific problem-solving situations, what should be the driver of the learning design process? How can learning be optimized for metacompetence development in a problem-solving perspective? The L&D Digital Learner Survey (CEB, 2016) mentioned earlier in the introduction section, presented 69% of employees regularly seeking out new ways of doing their work from their coworkers. How can professional practitioner educational design integrate and nurture this networking in its learning processes, and? The same survey related that 66% of employees expect to learn new information "just-in-time." How can the present content creation in classical settings evolve to an overall knowledge structuring and

management making available just in time information and acting as an artificial complement to his/her intelligence in problem-solving of the learner? The questions above if analyzed from one or several disciplinary or interdisciplinary perspective the solutions that they may offer could bring along further fragmentation of the problem instead of investigating integrated knowledge on their possible solutions. For example, from a computational point of view most of the CSCL solutions are built on closed platforms which may capitalize on technology support for collaborative learning but may create other problems – accessibility, integration - due to system closeness, therefor they might be part of a solution but do not necessarily integrate all the available knowledge in searching for solutions to the problem. In professional practitioner learning from a pedagogic point of view the focus may be on the content or curricula creation, but the focus may be too narrow on content development and fail to address the ease of use, applicability to the job situation requirement, etc. Looking from disciplinary perspectives the complexity of the issues is oversimplified and can only operate within the inertia of the existing systems and structures. A transdisciplinary approach promotes a complex problem-solving approach with involvement of different system point of view, questioning underlying structures, and going deeper in investigating the value system of the stakeholders involved, designing learning rather from a value creation mindset rather than from a simple discipline operational point of view.

4. CONSLUSION

Computer Supported Collaborative Learning research has fast risen in popularity in the last decades, as the boundaries between the physical and digital interactions and learning space are diminishing and social interactions are changing shape due to the wide range of digital communication opportunities. The profession's forecast is that CSCL technologies will become more flexible and tailorable for multiple collaborative settings, conditions and contexts. Due to their architecture characteristic, they may provide learning analytics data which make possible the creation and embedding of feedback loops in the design of learning processes, offering affordances of manipulating the learning processes in way unknown before. They may also offer just-in-time, accessible and visualized input to learners about their learning progress, improving the learners' reflection on their learning and influencing behavior change. Further research in the field therefore should focus on analyzing successful Computer Supported Collaborative Learning practices in organizational settings, determining effective conditions for successful collaboration in the workspace, and extending the transdisciplinary approach in optimizing learning process design in CSCL.

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TRANSFORMATION OF NATIONAL ECONOMIES IN BOUNDLESS WORLD

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ABSTRACT

Ever since second half of 20-th century national economies are constantly changing and the laborers are migrating among different economic sectors. Those changes are pushed forward by the bilateral free trade agreements at the beginning, and fueled by multilateral trade agreements later on. Foundation of international trade institutions made the world boundless and transformed it into one single market. Such environment made foreign direct investments and foreign outsourcing even more easier and transformation of national economies became more rapid and more radical. The growth rates achieved by developing countries in years 1990. and 2000. are until then unprecedented. The models of such transformations so far had similar pattern, but now is the question whether or not will such patterns be repeated or are there whole new model to be applied in volatile and fast changing world. International trade agreement, which so far used to be leverage of faster development, are being suspended by the countries who used to be leaders in foundation of such agreements and international organizations, and, furthermore, integration processes who strongly marked second half of 20-th century, are slowing down and, even more, are changing direction into disintegration processes whose further repercussions are hard to anticipate. Despite new relations who are yet still appearing in the world, process of national economies' transformations is unrestrainable, but the question is what kind of transformation it shall be. Therefore, a secondary research of available literature is performed, in order to anticipate possible models of economic transformations, and to anticipate preconditions that the national economies are to fulfil and provide in order to achieve further economic growth.

Keywords: *development, growth, statistic analysis, transformation*

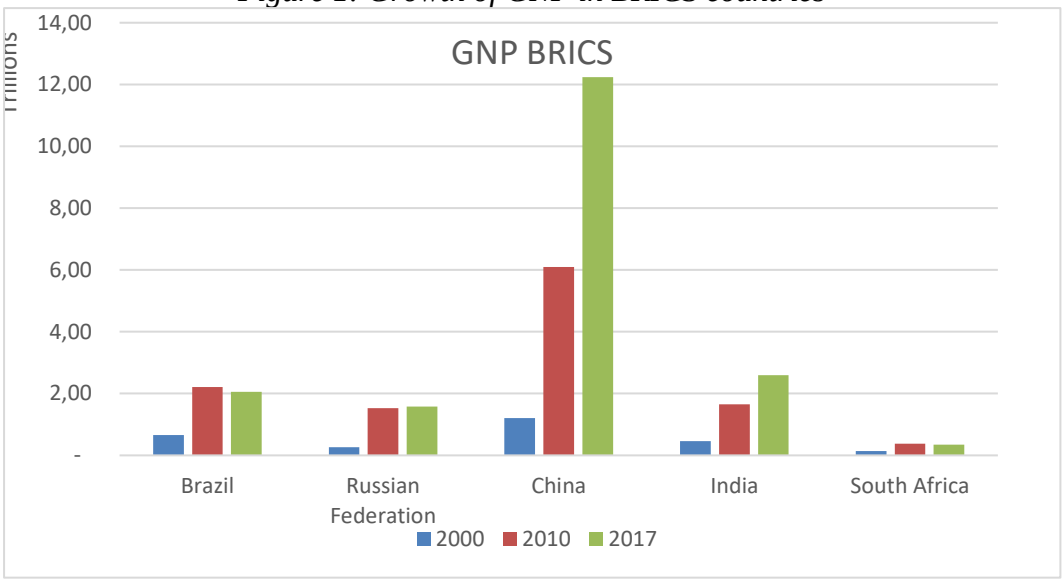
1. INTRODUCTION

In the period between year 2000. and 2017. great role in general world GNP growth played the emerging countries, especially in Brazil, Russia, India, China and South Africa. Based on similarities amongst the mentioned countries Truman (2006) coined the term BRICS which have became common for them as the group of countries. Those similarities are:

- They are developing countries with relevant global economic performance and high potential;
- They are countries with systemic importance for the world economy; in this respect their national performances have profound implications both regionally and globally;
- They are able to exert influence on the governance of the global economy.

Growth of GDP in BRICS is shown in Figure 1.

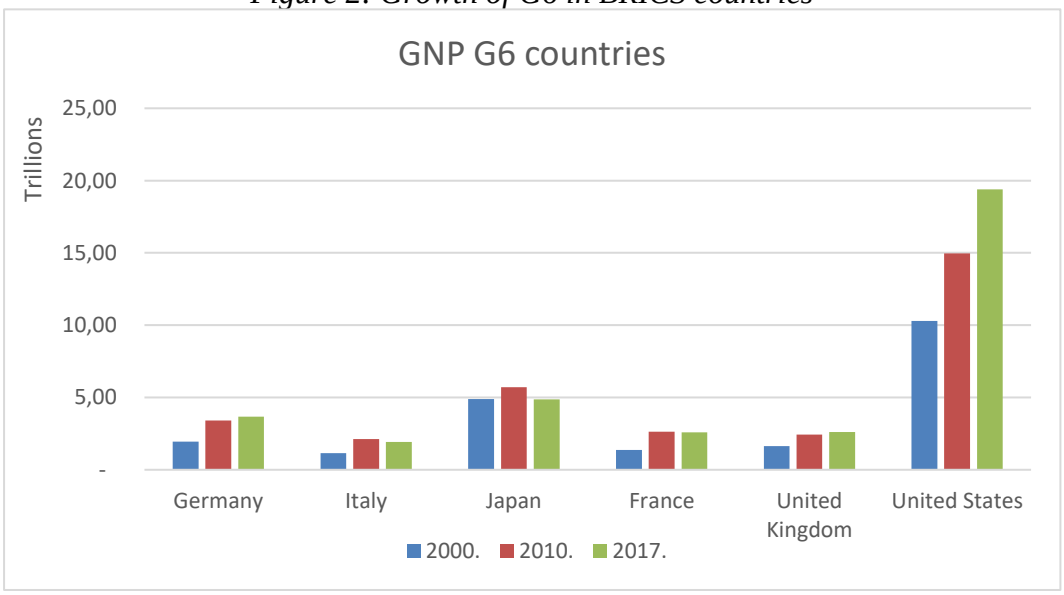
Figure 1: Growth of GNP in BRICS countries



Source: Authors, based on data available on www.worldbank.org

Growth in most developed countries in the world, G6, is shown in Figure 2.

Figure 2: Growth of G6 in BRICS countries

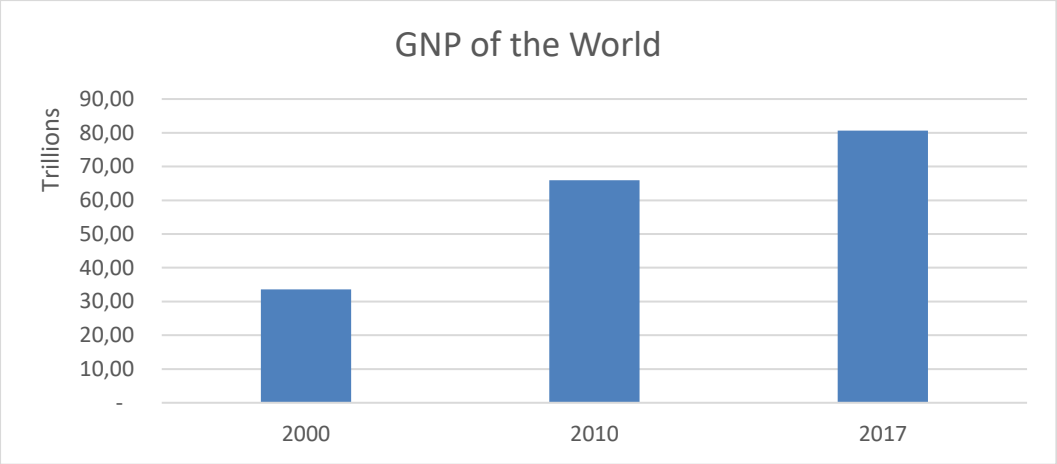


Source: Authors, based on data available on www.worldbank.org

In the observed time frame world GNP have gown for showed fallowing Figure 3.

Figure following on the next page

Figure 3: GNP of the World



Source: Authors, based on data available on www.worldbank.org

More detailed analysis by countries in absolute figures is shown in Table 1

Table 1: Overview of GNP by the countries

DEVELOPED COUNTRIES	2000.	2010.	2017.	CUMULATED GROWTH	CUMULATED GROWRH %
Germany	1 949 953 934 033,50	3 417 094 562 649,00	3 677 439 129 776,60	1 727 485 195 743,10	188,59
Italy	1 141 759 996 314,70	2 125 058 244 242,90	1 934 797 937 411,30	793 037 941 096,60	169,46
Japan	4 887 519 660 744,90	5 700 098 114 744,40	4 872 136 945 507,60	15 382 715 237,30	99,69
France	1 362 248 940 482,80	2 642 609 548 930,40	2 582 501 3070216,40	1 220 252 366 733,60	189,58
United Kingdom	1 647 951 278 559,50	2 441 173 394 729,60	2 622 433 959 604,20	974 482 681 044,70	159,13
United States	10 284 779 000 000,00	14 964 372 000 000,00	19 390 604 000 000,00	9 105 825 000 000,00	188,54
Total Developed Countries				13 805 700 469 380,70	
BRICS	2000	2010	2017	CUMULATGED GROWTH	CUMULATED GROWTH %
Brazil	655 420 645 476,90	2 208 871 646 202,80	2 055 505 502 224,70	1 400 084 856 747,80	313,62
Russian Federation	259 708 496 267,30	1 524 916 112 078,00	1 577 524 145 963,20	1 317 815 649 695,90	607,42
China	1 211 346 869 605,20	6 100 620 488 867,60	12 237 700 479 375,00	11 026 353 609 769,80	1 010,26
India	462 146 799 337,70	1 656 617 073 124,70	2 597 491 162 897,70	2 135 344 363 560,00	562,05
South Africa	136 361 854 808,50	375 298 134 440,50	349 419 343 614,10	216 057 488 805,60	256,24
Total BRICS				16 092 655 968 579,10	

Source: Authors, based on data available on www.worldbank.org

In year 2017. China have become second largest economy in the word by surpassing Japan. US economy remained the largest in the world, but it is less than doubled within 17 years, and the BRICS countries have multiplied their economies, aiming to become leading countries in the world, especially China who is about to become largest economy in the world in short time. American Nobel Prize winner in 1993. Robert Fogel calculated that China shall have GDP of 123 trillion dollars by 2040, what is easy to conclude regarding that within last 17 years Chinese economy have grown for more than 1.000 % (10 times) and all they have to do is to maintain such growth rate. But, is it possible? By definition of the World Bank, High income economy is the one with GNP per capita of 12.056 $ and more. China still did not reach such level of GNP per capita. Experience of the other countries who did reach such level, shows significant slowing down of GDP growth rate as they came closer to GNP per capita of 12.000 $, as shown in Table. Such slowing down of Chinese economic growth can also be expected, what brings us to conclusion that such high GNP as predicted by Fogel (2010) shall hardly be achieved in the time frame as predicted.

Table 2: GNP growth rates after reaching 12.000 $ per capita

Year	Republic of Korea	Singapore	Slovak Republic	Brazil
1990	8,73	5,85	-	-4,83
1992	5,08	**3,92**	-	-2,13
1994	8,11	7,50	5,79	3,64
1996	**6,57**	3,25	6,53	0,59
1998	-6,15	-5,49	3,87	-1,21
2000	8,02	7,03	1,35	2,61
2002	6,81	3,26	4,56	1,68
2004	4,48	8,19	5,28	4,47
2006	4,63	5,51	**8,45**	2,81
2008	2,05	-3,49	5,54	4,03
2010	5,97	13,22	4,94	6,50
2012	1,76	1,56	1,48	**0,98**
2014	2,69	2,54	2,65	-0,38
2016	2,47	1,08	3,19	-4,25
2017	2,62	3,53	3,23	0,19

Year of reaching GDP of 12 000 $ per capita

Source: Authors, based on data available on www.worldbank.org

Further prove that predictions of economy sizes in future is nothing but wild guess are the statements of highly respected economists in the past. Adam Bergson, American economist, member of American Academy of Science and Arts stated in 1961. That USSR GDP shall surpass USA GDP in 1980-ies. Those predictions where based on trends in 1950-ies, but the growth rate have slowed down in years to come, as shown in Table 3. This decline of growth rate Bergson (1978) explained with the technological failures, relativizing his previous predictions about USSR becoming the leading economy, regarding GDP, at the same time. Another Nobel Prize winner, Paul Samuelson, author of "Economics: An Introductory Analysis" (Samuelson 1961, p. 830) As we know, USSR did not catch up with USA in 1984. furthermore, USSR disintegrated on former soviet republics in 1992. before catching up with USA.

Table 3: Soviet GNP growth rate 1928-1990.

Time frame	1928-1940	1950-1960	1960-1970	1970-1975	1975-1980
Growth rate %	5,8	5,7	5,2	3,7	2,6

Source: Ofer (1987)

2. OVERVIEW OF BRICS COUNTRIES

Brazil, India and South Africa entered WTO in year 1995. China in year 2001. and Russia as the last of them in year 2012. Even do BRICS countries have a lot of similarities, there are a lot of differences in strategical development approach. Before entering WTO, they passed different paths, and entrance in WTO affected differently on their GNP growth rates. Growth rates are shown in Table 4.

Table 4: GNP growth rate before and after entrance in WTO

Years	Brazil	Russia	India	China	South Africa
1990	-3,1	-3,0	5,5	3,9	-0,3
1991	1,5	-5,0	1,1	9,3	-1,0
1992	-0,5	-14,5	5,5	14,2	-2,1
1993	4,7	-8,7	4,8	13,9	1,2
1994	5,3	-12,6	6,7	13,1	1,2
1995	**4,4**	-4,1	**7,6**	10,9	**3,1**
1996	2,2	-3,6	7,6	10,9	3,1
1997	3,4	1,4	4,0	9,2	2,6
1998	0,3	-5,3	6,2	7,8	0,5
1999	0,5	6,4	8,8	7,7	2,4
2000	4,1	10,0	3,8	8,5	4,2
2001	1,4	5,1	4,8	**8,3**	2,7
2002	3,1	4,7	3,8	8,5	4,2
2003	1,1	7,3	7,9	10,0	2,9
2004	5,8	7,2	7,9	10,1	4,6
2005	3,2	6,4	9,3	11,4	5,3
2006	4,0	8,2	9,3	12,7	5,6
2007	6,1	8,5	9,8	14,2	5,4
2008	5,1	5,2	3,9	9,7	3,2
2009	-0,1	-7,8	8,5	9,4	-1,5
2010	7,5	4,5	10,3	10,6	3,0
2011	4,0	5,3	6,6	9,5	3,3
2012	1,9	**3,7**	5,5	7,9	2,2
2013	3,0	1,8	6,4	7,8	2,5
2014	0,5	0,7	7,4	7,3	1,8
2015	-3,5	-2,8	8,2	6,9	1,3

Year of entrance in WTO

Source: Authors, based on data available on www.worldbank.org

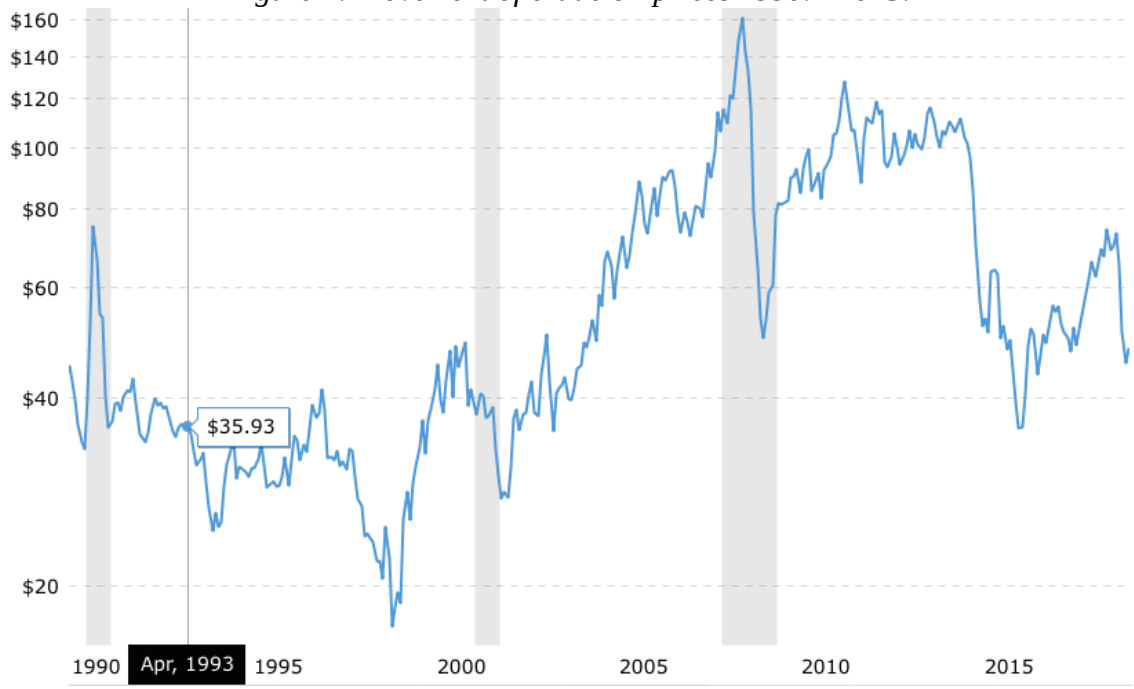
2.1. Brazil

Brazilian GNP growth rate remained to be volatile after WTO membership, but, unlike before being WTO member, the rate was not negative, with small exception of year 2009. until 2105. when Brazil has sunk in deep recession caused by extremely high costs of summer Olympic and football world cup (Bin, 2017). Further reason for Brazilian economic downfall is corruptive scandal connected to Petrobras, the largest Brazilian company. A study published in Forbes estimated that 27.1 billion $ was expected to have been lost in GDP this year [2015] because of Petrobras' corrupt, little ways (Rapoza, 2015). This equals to 1% of total GDP, Brazil's GDP is close to $2.2 trillion, that was simply burned by the greediness and self-indulgence uncovered throughout this scandal. Federal funds will need at least R13.6 billion to cover layoffs in construction. OAS and Galvao, important construction companies that were involved with Petrobras, did not have another alternative other than filing for bankruptcy (Rapoza, 2015). The negative effect on GDP in 2015 does not fully account for all the economic losses that this scandal continues to unveil. The end consequences of this scandal are not about to be estimated yet, but anyhow, as Mauricio Santoro, a political science professor at Rio de Janeiro State University said: "I've never seen my countrymen so angry [and] we have this sense that the dream is over" (Segal, 2015). Ever since, Brazilian economy did not recover, furthermore, as shown in Table 4, Brazil is sinking into deep recession.

2.2. Russia

Russia entered in WTO in 2012. It was preceded with 10 years long period of economic prosperity (1999-2008) in which Russian Federation doubled it's GDP. Global financial crises in 2008. caused significant fall of GDP, but the economy recovered one year later. Entrance in WTO have not resulted with return of growth rates as it was in golden period between 2000-2008. After Russian military involvement in Ukraine and annexation of Crimean Peninsula, USA, EU and many more countries proclaimed sanctions against Russian Federation, and international trade was banned in many aspect, what caused recession (Overland 2015.). India entered WTO in 1995. and ever since have positive GDP growth rate, even do volatile, but more than average in Developed Countries. Russian economy is strongly depending on exporting of raw material, especially on crude oil and its prices. In Figure 4 is shown crude oil price movement in time frame 1990-2015.

Figure 4: Movement of crude oil prices 1990. - 2015.



Source: https://www.macrotrends.net/1369/crude-oil-price-history-chart

If we compare the GNP growth rate in the same time frame, we can conclude that Russian economy is growing when the crude oil price is higher than 80$ per barrel. With lower price, economy stagnates, or, even more goes, into recession. Prices of crude oil in time frame from year 1990 till 2015. is shown in Figure 4. During his presidential inauguration in 2008. Dmitry Medvedev stated that "Russia should modernize it's economy and get rid of humiliating dependence on natural welt" (Levy, 2009). Despite that attitude, not much have changed. Russian economy is still extremely depending on row material prices. More than 80% of Russian exports are crude oil, natural gas and timber, so Russian economy is example of resource based economy (Ellman, 2006). According to prediction by PricewaterhauseCoper (PWC, 2015) in 2015. Russia shall surpass German GDP by 2030. but the latest figures does not confirm that prediction. According to data's available at World bank, Russian GDP in 2017 is 1,578 trillion $, and German is 3,677 trillion $. In order to surpass German economy, Russia should grow about 6% yearly in average in order to reach Germany, with the precondition that German dos not grow at all. So, prediction by PWC is unlikely to be possible.

2.3. India

Similar to all socialist countries, including USSR, India adopted planning economy model after the World War II. The growth rates in socialist environment are showed in Table 5. After the fall of communism and unsustainability of planed economies in general on the global scale, India 1990. introduced economic reform in order to shift on market orientated economy instead planed economy.

Table 5: India GNP growth rates in planed economy:

Decade	Growth rate (%)
1950-1959	3,3
1960-1969	4,4
1970-1979	2,9
1980-1989	5,6
1990-2000	6,5

Source: Bhalila (2009)

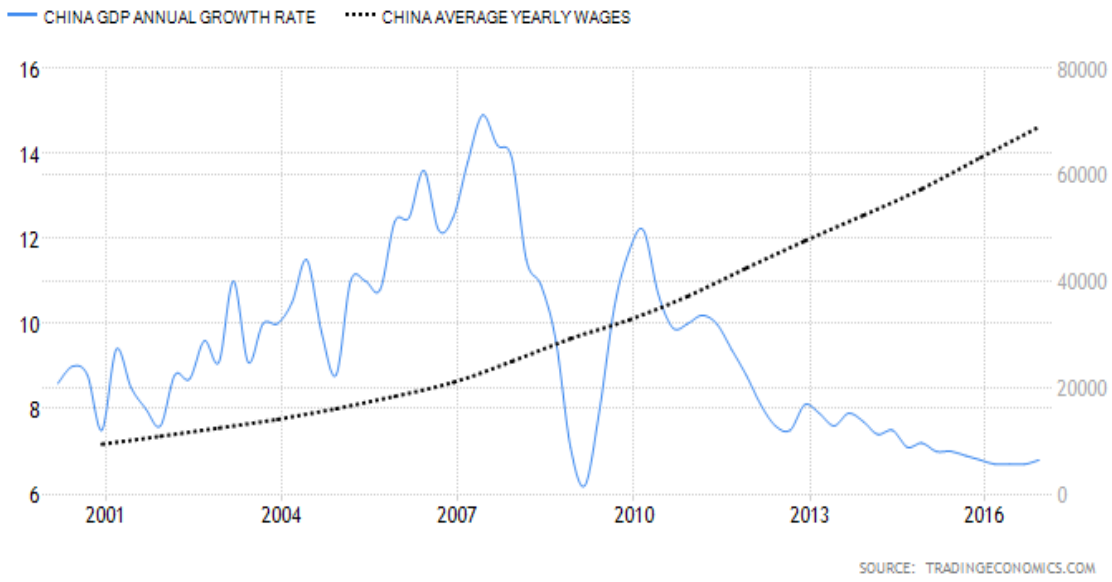
Those changes have resulted with higher growth rates, but entrance in WTO and integration in global economy, have brought sensitivity on global crises, so India was affected by all of the regional and global crises ever since entrance in WTO trough economic slowdown. Economic recovery also accorded to global recovery trends. The largest problem India need to face is the fact that more than 30% of adult population is illiterate (Katiyar, 2016) what is huge obstruction of countries competitiveness and obstacle to implement high technology on larger scale in national boundaries.

2.4. China

China have developed its economy step by step, but in short time, coordinated by state and with substantial state incentives with final goal to became leading economy in the world. China will set up a world order that will be fair to China, a world without American global supremacy, and revise the U.S.- dominated economic and geopolitical world order founded at Bretton Woods and San Francisco at the end of World War II (Pillsbury, 2015). Fast development in early 1990. China started with resource based products Competitive advantages in these products arise generally from local availability of natural resources in order to inshore energetic independence. Second step was Low technology products relocation from rich to poor countries, with assembly operations shifting to low wage sites and complex design and manufacturing functions retained in developed countries. This relocation has been the engine of export growth in industry. Last step was High technology products have advanced and rapidly-changing technologies, with high R&D investments and prime emphasis on product design. The most advanced technologies require sophisticated technology infrastructures, high levels of specialized technical skills and close interactions between firms, as well as between firms and universities or research institutions (Wei, Chunming, 2012). China applied for membership in GATT on 19.06.1987. During the negotiations, GATT self dismissed, and transformed into WTO, so China applied for membership in WTO on 12.07.1995. Several years later, on 12.11.2002. China became full member of WTO, more accurate, 143. member of WTO. In next several years Chinese economy accelerated and reached all time highest growth rate of 14,2% in year 2007. After reaching all time high, Chinese GNP growth rate is constantly slowing down. This may be caused by implementation of strict WTO rules according to state incentives which China needed to apply in order to become full member of WTO a to have approach on global market. Second reason for such slowdown could be that process of shifting national economy from low technology to high technology demands structural changes which generates high costs.

Significant is that Chinese GDP growth rate and average yearly wages are inversely proportional, as showed in Figure 5.

Figure 5: Correlation between Chinese GDP growth rate and average yearly wages years 2000-2016.



Source: https://www.tradingeconomics.com

2.5. South Africa

South Africa was exposed to international economic sanctions due to implementation of "Apartheid", systematized racial discrimination officially implemented in 1948 (Worden, 1994). Such system resulted with arm embargo adopted by United Nations in early 1960-ies, oil embargo adopted by OPEC in 1973. and at the end with multilateral trade sanctions in mid-1980-ies, which led to final downfall of Apartheid (Manby, Bronwen, 1992). Abolition of racial laws have not integrated previously disillusioned social groups. Heavy burden of segregation remained trough large amount of excluded social groups due to weaker education, or no education at all, extreme poverty in suburban regions due to multiply lower wages of segregated groups, and general exclusion of segregated groups of management. Society with economy heavily wounded by international sanctions faced huge problems with social inclusion. In order to overcome this situation, South African government proclaimed six goals in 2004. (SAFC,2004):

- Development of Human Resources - Investing in training of black managers. Goal – 25% blacks in higher management (with 4% women) and 50% in lower management until 2008.
- Purchasing- the aspiration to increase share of suppliers owned by black people for 50% until 2008. and 70% until 2014.
- Access to financial services- the obligation to expand transaction products and services on 80% among black people until 2008.
- Financing of strengthening- setting quantitative targets for transaction financing and investing in strengthening of the economic power of the black people
- Ownership- Goal: minimum 25% of ownership share by black people in every financial institution till 2010.
- Supervision- Goal: share of 33% black people in every board until 2018.

3. CONCLUSION

BRICS countries have achieved unprecedented growth in history, especially China who, according to data by World Bank, multiplied its GND ten times within 17 years, respectively, more than 1000%. In the same time frame global economy have grown form 33,6 trillion $ to 80,6 trillion, respectively for 240%. Of all BRICS countries only South Africa have grown with the same rate as world, all others rates where far higher, as shown in table 6.

Table 6: Comparisons of BRICS countries GNP growth rate with global growth rate

Country	Cumulated GNP growth 2000/2017 in %	Indeks to the global GNP growth
Brazil	313,62	130,68
Russia	607,42	253,09
India	562,05	420,94
China	1.010,26	234,19
South Africa	256,24	106,77

In the same time frame economies of G6 countries, most developed countries of the world have grown with far lower rates than was global GNP rate, as shown in table 7.

Table 7: Comparisons of G6 countries GNP growth rate with global growth rate

Country	Cumulated GNP growth 2000/2017 in %	Indeks to the global GNP growth
Germany	188,59	78,58
Italy	169,46	70,61
Japan	99,69	41,54
France	189,58	78,99
Unted Kingdom	159,13	66,30
United States	188,54	78,56

So, the conclusion is that BRICS countries have played very important role in global economy. Comparing the absolute figures, world economy, accordingly to data of the World Bank have grown from 33,6 trillion $ in year 2000. to 80,6 trillion in year 2017. respectively, it has grown for 47 trillion $. In this growth BRICS countries contributed with 16,092 trillion $, respectively, 34,24%, and G6 countries with 13,805 $, respectively, 29,37%. So, more than half of global growth have been achieved in only 12 countries. Important stimulus to GNP growth was entrance in WTO, respectively, on open global market, considering the fact that GNP growth rate in BRICS countries have accelerated after this entrance. Participation on opened global market brought also vulnerability on global trends, so global financial crises in 2008. negatively affected on all BRICS countries, but the economies recovered soon after. Obstacles to further growth are referring each BRICS country differently and they are considering strictly national policies. Brazilian main problem is widespread corruption and high crime rate. Russian main problem is dependence on additional wealth. In order to achieve further growth, Russia must transform its economy from economy of resources to High technology economy. Further Russian obstacle is foreign policy towards neighbouring countries, above all Ukraine, who causes international trade sanctions and absence from global market despite being full member of WTO. Indian main problem is massive illiteracy and further growth demands thorough social reforms, above all in educational system. China is in transforming its economy into High technology economy what is long term process and includes increase of domestic consumption as initiator of further growth.

Chinese households are spending about 25% of their incomes, unlike American, who are spending more than incomes are (Kujis, 2006). South African main problem is inclusion of social groups excluded during Aparthaid regime, what is long term process.

4. FURTHER RESEARCHES

BRICS economies have played significant role in past two decades, but all of them came to the point on which further development demands different reforms, individual by each of them. Main question is which economies are about to be drivers of the global economy in decades to come.

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UNDERSTANDING THE HUMAN CAPITAL DEVELOPMENT: DIVERSIFICATION OF MULTINATIONAL ENTERPRISES

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ABSTRACT

The cooperation of multicultural teams is an organic phenomenon of globalized work. Multicultural team ill-functioning without trust. In the absence of trust, dialog and community of practice are ponderous. Nevertheless, when two cultures meet, the distrust is an involuntary reaction. Encounter and collision of cultures are present in the age of globalization, but the methodology of a single discipline is not able to describe and solve the emerging issues. Transdisciplinary approach (go beyond the disciplinary boundaries) and the reconceptualization of knowledge help to understand the operation of this phenomenon and provide the solution. To operate on the foreign market means a significant risk (cultural differences, asymmetric information between domestic and foreign-based labor, lack of transparency, foreign exchange risks, political risks, corporate governance differences). However, to minimize the cost of capital and systematic risk, to maximize the market access and to achieve diverse global human capital mean an enormous advantage for multinational enterprises compare to the local one. Each foreign country has a unique culture, history, and the institutional practice is different. Multinational management requires an understanding of these differences. The limited knowledge of the decision makers influences cooperation and creates a high risk of the operation. The cultural understanding and connection are crucial for knowledge management, especially how produced and how to keep within the organization, reflects the importance of trust. The benefits of international portfolio diversification are intelligible, but on the other hand, the effect on the individual human capital is not unequivocally. When the primary aim is the cost optimization, the international enterprises have to provide sufficient tools to increase the productivity of the human capital and keep their knowledge in the organization, but if they do not invest significantly to the development further, it makes them vulnerable.

Keywords: *diversification, globalization, human capital, multinational team, trust*

1. INTRODUCTION

In the last three decades, a significant change was observed in the world financial and economic model. As the market became more complex, and the global landscape changes, all stakeholders face a challenging environment. If companies operate in only their home market, they have limited (and more expensive) access to different resources. The companies are motivated to move foreign markets to minimize their cost of capital and maximize their market (Shapiro, 1978). While the cost of the production of the internationally active enterprises decreased, at the same time, the systematic risk increased. (Čaušević, 2014). The benefits of international portfolio diversification are intelligible, but the effect on the individual human capital is not unequivocally. These changes in the global trends influence individuals who are employees of the multinational companies. Each foreign country has a unique culture, history, and the institutional practice is different. The international enterprises have to provide sufficient tools to multinational management to understand these differences.

The limited knowledge of the decision makers influences cooperation and creates a high risk of the operation. The cultural understanding and connection are crucial for knowledge management, especially how produced and how to keep within the organization. Cultural fragmentation is one of the key principle of every culture, and he investigates the effect of the meeting of culture in the modern world. As far as Nicolescu (2014) concerns, neither the intercultural nor the multicultural do not assure communication between all cultures, but they certainly contributed to steps toward the act of transcultural communication. This phenomenon leads to the problem, where the language and meaning receive a higher weight: people use same – not native - words which can have different meanings through culture and representation. (Nicolescu 2017, Brier, 2015).

2. THE MAIN MOTIVATION OF THE COMPANIES TO BECOME GLOBAL

One of the first multinational business organizations, the East India Company, was established in 1600. The decision whether a company move abroad is driven by strategic direction. Move to abroad is a huge opportunity and a big challenge as well. "I define globalization as producing where it is most cost-effective, selling where it is most profitable, and sourcing capital where it is cheapest, without worrying about national boundaries" (N. Murthy, Founder and Executive Chairman of the Board, Infosys; Moffett, 2016, pp:2). Their strategic considerations lead by different motivations (Moffett; 2016, pp:32.). Market seekers produce in foreign markets either to satisfy local demand or to export to markets. The Raw-material seekers motivated to find cheaper resources including raw materials, for export or for further production (oil, gas, forest is the most significant) or knowledge. The Productivity is the main keyword for firms so to reduce cost on labour is highly motivate companies to move new countries (Production Efficiency seekers) This strategic direction is true not only for labour-intensive production but for their, it is the one of the factors of reducing cost. Labour-intensive production of electronic components in Taiwan, textile industry movement to China or car industry moves to Asia or Eastern Europe are the main proof of this motivations. The Knowledge seekers moves to countries to gain access to technology or knowledge or managerial expertise. Nowadays well-educated formal MBA students are available in India or Chine, so a lot of companies work with them with a lower cost. And finally, the Political Safety seekers establish new operations in countries that are considered unlikely to expropriate or interfere with private enterprise. The movement of the industrial trends observed in the comparison of the Largest Global companies (Milford, 2018). While in 2008 oil company (Raw-material seeker) was the leader of the list of global companies, now the industrial change is obvious. The technology companies dominate the list which has the most benefit from globalization through access of knowledge on low cost.

2.1. The main risks of the international enterprises

Multinational financial management requires an understanding of cultural, historical, and institutional differences such as those affecting efficiency and sustainability. Each foreign country has unique culture, history, and institutions. The country risk is significant if someone invest or operate a business in a foreign country. The country risk is different from country to country, but it includes political risk, exchange-rate risk, transfer risk, economic risk, regulatory risk. In general, the country risk is the degree to which political and economic situation influence the securities of the business in a particular country. (Moffett, 2016. 363-366). It is not always understood by exported management of multinational enterprises, which influence cooperation and effectiveness. The countries' regulations and institutional practices are all different, and the lack of knowledge of the decision makers can create a high risk of the operation. This phenomenon raises the question, whether the classical trade model, the general principle of comparative advantage is still valid or not. The comparative advantage of the twenty-first century is based more on internet facilitated services than on the classical resources

in the seventeenth-nineteenth century when countries specialized only on the products that they most efficiently produced. The modern factors are more complex when the companies operated worldview and the operate facilities like managerial skills, research and development competence, educational levels of available workers, access to capital or supporting infrastructure. (Moffett, 2016. pp:29-30).

2.2. The effect of the portfolio diversification on the risks of the international enterprises

Beyond the access to the market and the resources of the countries, the potential benefits to companies to operate on global markets are based on international portfolio theory, as the benefits of international diversification. The company can reduce non-systematic risk by maximizing the security of the operation, but it cannot influence systematic risk. In the CAPM model, a fully diversified domestic portfolio would have a beta of 1.0. This is Standard Domestic Financial theory. If the company is represented on the domestic and international market as, well this diversify the portfolio more than only domestic and the beta will be lower one. The International CAPM (ICAPM) says that there is a global market where the firms trades. International portfolio theory typically concludes that adding international securities to a domestic portfolio will reduce the portfolio's risks. Although the firms to operating on the market has significant risks, but they have a lower cost of capital than their domestic counterparts and effective tools – not to ignore but - to minimize the risk level of the optimal capital budget. All of these factors lead to the fact, that "the multinational corporation (MNC) becomes the norm rather than the exception, the need to internationalize the tools of domestic financial analysis is apparent." (Shapiro, 1978).

3. CAPTURE THE KNOWLEDGE OF THE HUMAN CAPITAL IN THE MULTINATIONAL COMPANIES

The changes in global trends influence individuals who are employees of the multinational companies. Encounter and collision of cultures are present in the age of globalization, but the method of a single discipline is not able to describe and solve these emerging issues. The cultural fragmentation is the heart of every culture. When two people try to communicate their prejudices, convictions, and language appear on the sub-conscious level. The dialog is difficult as sub-conscious "fights" against sub-conscious. As this confrontation is sub-conscious, they drifted conflict is not obvious. The process is the same for cultures, where dogmas, believes meet with each other.

3.1. Transdisciplinarity, the unity of knowledge

More and more scientific areas arrived at the limits of their discipline which had a far-reaching consequence, not only the given discipline but for community and society as well. As the knowledge of the human beings developed and specialized, the fragmentation of disciplines was released (Montuory, 2005). Now, the separated disciplines – even sub-disciplines - are not able to answer to burning topics, which influenced not only the scientists but practitioners as well. Discoveries on many fronts were also leading scientists to think big systems. Multidisciplinary seems like a solution to this problem, which investigates a research topic in several simultaneous disciplines, not in only just one. Multidisciplinary brings an extra value in question, but this is "in the exclusive service" of the home discipline and not inclusive (Nicolescu, 2010, pp:22). The goal and the method of Interdisciplinarity are different than multidisciplinary, as it transfers methods from one discipline to another. Bernstein (2014) emphases that multidisciplinary overflows the disciplines, but the goal remains within the disciplinary research framework. In fact, there is no transdisciplinarity without disciplinarily. The goal of Transdisciplinarity is the understanding of the present world, the closest one to the real-life experience, where the central imperative is the unity of knowledge.

The transdisciplinarity concerns at once between the disciplines, across the different disciplines, and beyond all disciplines (Nicolescu, 2010, pp.:22). As Piaget said (1970) „succeeding to the stage of interdisciplinary relations a superior stage, Transdisciplinarity is the most comprehensive and abstract synthesis of disciplines, "the coordination of all disciplines in the education and innovation system by a generalized axiomatic (introduced from the purposive level down) and an emerging epistemological pattern" (Jantsch, 1972, pp.:7). The "transdisciplinarity identifies with new knowledge about what is between, across, and beyond disciplines (the meaning of trans)." (Bernstein, 2015, pp.:6). This is the scientific approach which initiates a dialogue between minority and majority cultures, includes scientists and practitioners from different areas, and strives to transcend the traditional borderline between objective and subjective viewpoints. In this fast-moving, ambiguous, complex world, the concept of transdisciplinarity focuses on a fundamental feature of reality, on different levels and dimensions of reality, and on what it calls the logic of the included middle (Nicolescu, 2010). This trend is the same for the cooperation, trust and cultural challenges in the multinational teams, where the single disciplinary approach is not able to get through the definition of knowledge and knowledge management.

3.2. Challenges of the knowledge management

The knowledge management, the organizational learning, and build the community of practice through trust are the main topics for business administration and management also as for psychology, sociology or knowledge science. Hard to define, specify, measure, and keep knowledge in the organization but from organizational cooperation point of view, the understanding of the concept of tacit knowledge and effect on Knowledge management is crucial. Breinstein (2014) uses knowledge management as "the toolbox of techniques intended to maximize the value and impact of employees' knowledge by converting tacit knowledge into explicit knowledge, thereby making it actionable." (Breinstein, 2014, pp.:17) He uses Davenport and Prusak's (1998, pp.:5) definition of it as a justified personal belief that increases an individual's capacity. Based on this approach, knowledge, is a commercial product, a resource for the organization, and human capital. Machlup uses a definition of human capital as "increased productive capacity of persons." (Machlup,1984, pp.:419). Knowledge management is a tool to capture knowledge of employees of the firms and make it available to others is the primary goal of the enterprises, to use this knowledge to create better products or respond to market needs. In the age of globalization, especially regarding how it is produced and how to keep knowledge within the organization reflects the importance of transdisciplinarity. The evolution of communication in the 'digital galaxy' has been changed. Not only the access to the knowledge but the way of communication changed in digital society. As the majority of the multinational teams are working remotely, the knowledge management and practices in a virtual world is a specialized area of this topic. Brier (2015) appoints that Shannon's model was successfully used over the years, "in providing terminology for describing aspects of communication systems, but it tells us nothing about how messages and meanings shape and ultimately determine the nature of human communication events" (Danesi, 2008, pp.: 18).

3.3. Communication, trust, and culture in the cross-cultural team

As we saw, the humankind develops more and more knowledge, which influence the cooperation of labor and division of labor. Disciplinary fragmentation is the result of increasing specialization. The globalization speeds up this process. As multinational enterprises maximize the benefit of diversification, local firms become part of the global community. It is a real cultural shift in attitude and cooperation which effects everyday practices and has long-term consequences and importance.

Cultural differences slow down or even block the development of trust and reduce the willingness of sharing tacit knowledge. It not only hinders the limit the informal cooperation but reduce the effectiveness of formal knowledge transfer (makes it longer or less effective) as well. It is critical for multinational teams where the member works in a virtual team. While cultural differences across countries through diversity expected to increase the number of learning, it is blocked, if the organization is not able to improve the trust. Far beyond technology, this influence social behavior and influence on the cultures. From the transdisciplinary approach, this explanation based on technology and science, but social science, semiotics, psychology on the other hand. This is the reason for the problem of networked knowledge in organizations in a different culture and these influence on people behavior is an interesting question for transdisciplinary. Not possible to have a theory of information, cognition, and communication without a concept of meaning. The Meaning is not a simple question, as this is related to life, language, consciousness, and unconsciousness. The meaning is part of the culture and like it, part of the "collective metaphysical framework" (Brier, 2008, pp.:128) which is a fundamental issue for an organization. The industrial organization used the division of labor and specialization, to increase, articulate, and facilitate production, and the production of knowledge has followed the same organizational model (Montuori, 2005). Each organization's goal to create unity within a diverse team, while the relationship between the people in diversity is contradictory and raise many challenges.

4. THE PROMISE OF TRANSCULTURAL APPROACH

As far as Nicolescu (2014) concerns, neither the intercultural nor the multicultural do not assure communication between all cultures, but they certainly contributed to steps toward the act of transcultural communication. As a starting point, use Nicolescu framework about cultural interaction. (Nicolescu 2010). He investigated the effect of the meeting of culture in the modern world. The modernity leads to an establishment between cultures and brings a desire for the need to unite. He adapted the logic and level of multi-inter-trans prepositions and introduced a framework of the three degrees of cultural interaction. In his conception, the multicultural "shows that the dialogue between different cultures is enriching, even if its goal is not real communication between cultures." (Nicolescu, 2014, pp.:22). He brings an example, the study of Chinese and Islamic civilizations influenced the European culture in middle ages. With a corresponding analog, this discernible in the virtual world as strong cultures – which can be even non-existent one - influence other cultures and the behavior. Multicultural as the first level of cooperation, - not unity yet - and the discovery of the different culture is embedded in our cultural understanding. It "helps to discover the face of our own culture in the mirror of another culture" (Nicolescu, 2014, pp.:22). Based on the observation, in the multinational organization, this phenomenon appears is the first step of the cooperation when the persons seem their culture feature and disadvantage more clearly than before. The intercultural level what assisted by Nicolescu as the result of the growth of transportation and communication and economic globalization. Multinational organizations have higher access to the capital included human capital than a local one, but on the other hand, they destroy borders and create a cross-border organization where the cultural understanding and connection is crucial for knowledge management. "A deepening discovery of hitherto badly known or unknown cultures makes unsuspected potentialities burst forth from our own culture. The face of the Other permits us to know our face better." (Nicolescu, 2014, pp.:22). This can lead a learning process or – otherwise, their cultural differences lead to stereotype and untrusty. As far as he concerns, neither the intercultural nor the multicultural do not assure communication between all cultures, but they certainly contributed to steps toward the act of transcultural communication. "The transcultural designates the opening of all cultures to that which cuts through them and transcends them…

It presupposes a universal language founded on shared values" (Nicolescu, 2010, pp.:23). As we have seen the significant change on the level of disciplines – thanks to the development of scientific methods and approaches – that this kind of change has been realized as an inner need, those of cultural modes remain the domain of ephemera. "Culture today appears more and more like some monstrous rolling garbage can in which strange defenses against the terror of non-meaning proliferate. Of course, as always, the new is hidden in the old, but it is slowly but surely being born. Beyond all the different cultural modes, a new cultural way of being is taking shape" (Nicolescu, 2010, pp.:22).

5. SUMMARY

The multinational enterprises and the cooperation in multicultural teams are an organic phenomenon of globalized work. Transdisciplinary approach (go beyond the disciplinary boundaries) and the reconceptualization of knowledge help to understand the operation of this phenomenon. Besides of, this is the reason that the problem of networked knowledge in organizations in a different culture and the influence on people behavior is an interesting question for transdisciplinary research. The recognition and the understanding of the problem with a transdisciplinary approach, and find the common language is challenging, so the misunderstanding and disagreement in transdisciplinary cooperation are more common. (Dodig-Crnkovic at all. 2017). Each person has his/her prejudices, his/her convictions. We discussed the importance of meaning earlier and put this into the consideration of the two-culture problem. The language receives a higher weight: people use same but not native words which can have different meanings through culture and representation. This is the reason why transdisciplinarity can be the method of dialogue between cultures. (Nicolescu 2017). To adapt the ontological axiom of transdisciplinarity, the A is the culture on a personal level, the non-A the different culture and the hidden-T which appear on an organizational level as A and non-A at the same time. These two systems – cultures – generate the system of the system: the culture of culture. "The included third does not mean at all that one could affirm one thing and its opposite… in a logic based on the assumption "both this one and the other one," or rather "neither this one nor the other one." (Nicolescu 2014, pp.:170). "Thus, the philosophy of the included third appears as a philosophy of freedom and tolerance" (Nicolescu 2014, pp.:181).

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THE IMPLEMENTATION OF PARTIAL LEAST SQUARE MODELLING (PLS) FOR MARKETING RESEARCH IN ARAB COUNTRIES: INTRODUCTION TO BEGINNER USERS - EVIDENCE FROM ISLAMIC BANKS OF PALESTINE

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ABSTRACT

Partial Least Square method works similarly to the standard regression model as each of these are often used for determining a relationship between certain variables that can influence the marketing strategies in general. The reason why PLS is considered is because of its advantages such as its lower size sample, easier to test and implement and capabilities to handle formative indicators. This is considered to be ideal in scenarios which are often related with international marketing as it could be difficult for an individual to adopt marketing strategies that are well suited for that country or region. This is especially true for Arab countries due to the complexities in this region due to a deep interconnection between their religion and their vast culture. This assessment will primarily focus on understanding and evaluating the uses of Partial Least Square in international business literature towards helping in understanding the benefits of using it to develop strategies for marketing research that are well suited for Arab countries. For this, PLS software such as SmartPLS will be used in order to run the tests to determine the viability of the marketing strategies that will be used for this.

Keywords: *Structural equation modelling, Partial least squares, PLS-SEM*

1. INTRODUCTION

Partial Least Square modelling is defined to be a type of structural equation modelling which has become a main standard for marketing research. Researchers primarily use this as a way to understand and assess the latent variables that are understood at an observational level (Hair, Sarstedt, Ringle & Mena, 2011). Along with that, these are primarily used in order to test relationships between the latent variables that are to be tested in a theoretical level (Hair, Sarstedt, Ringle & Mena, 2011). The use of this is considered to be useful in the context of understanding or predicting the output of values that are able to help in making a marketing strategy that is as effective as it can be (Shackman, 2013). This can include the likes of using probability tools such as linear regression, and correlation that can use to evaluate the relationships that can help in understanding it in a theoretical level (Hair, Sarstedt, Ringle & Mena, 2011; Shackman, 2013). This can be useful in evaluating or understanding how one can conduct a marketing research in Arab countries. The reason why Arab countries are considered for this assessment is because Arab countries are considered to be a great market for marketing and for an organization to gain a competitive edge in a selected industry (Mahajan, 2013). According to the assessment done by Mahajan, Arab countries are different from similar markets like India, China and Brazil is their intertwined relation between their religion Islam

and the Arab culture (Mahajan, 2013). It can be seen that while Arabs are willing to adopt new and modern settings and environment, they do not want to trade their religion for it. As such, the marketing strategies and research that needs to be done for this needs to consider this criteria along with the strategies that can be taken for conducting a marketing research. The purpose of this assessment is to utilize Partial Least Square to determine and find marketing research methods that can be utilized in Arab countries. This can help in making sure that the work done with this is able to develop marketing research strategies in Arab countries. Doing this could help in making sure that those strategies are being used that can help in getting better results when developing marketing strategies for these. To help with this, PLS software will be used in order to reduce the effort and calculations for this assessment. For this, the tool that will be used is SmartPLS which is one of the much software that are used for this work. It can help in the research phase as it reduces the amount of time that it would be required to calculate each variables for it.

2. LITERATURE REVIEW

According to the assessment presented by various scholars, it can be seen that the structural equation modelling is considered to be one of the most used and known models that are used in the international business literature by its researchers (Hair, Sarstedt, Ringle & Mena, 2011; Shackman, 2013; Sarstedt, Ringle, Smith, Reams & Hair, 2014). The lesser known modelling technique that is considered as an alternative of structural equation modelling is partial least square model (Shackman, 2013). The partial least square model works similarly to a structured equation modelling in the context of understanding the relationship present between two or more variables and determining the influence of it on one another (Shackman, 2013). It has seen a widespread usage among applied researchers starting from 1960s to late 1970s (McIntosh, Edwards & Antonakis, 2014). PLS is gaining a strong following in fields such as marketing and information systems research due to the benefits that it presents and the inherent advantages that it presents (McIntosh, Edwards & Antonakis, 2014). This makes it a better alternative to the likes of structured equation modelling, linear regression, correlation, and simultaneous equation estimators (McIntosh, Edwards & Antonakis, 2014). This can be useful when determining the marketing research that can be taken for Arab countries. This is because Arab countries have a different opinion and culture that sets them apart from the rest of the countries (Mahajan, 2013). It is seen that the Arabs, while have adopted modern benefits and environment, still considers intertwining their religion and culture together (Mahajan, 2013). This can become a crucial problem when trying to do a marketing research for Arab countries as missing out religion or their customs could present to be threatening for any organization that wants to invest in this region (Mahajan, 2013). As such, the marketing research that is needed to be done needs to consider the factors and variables that are made to suit for Arab countries and their specific regions. When forming the research, care is to be taken towards making sure that the marketing research conducted from it is able to achieve the expected result or that result that is able to justify the strategies that can be used for Arab countries.

3. WHY PLS?

One of the purpose of using PLS-SEM is prediction thus, researcher must report the predictive relevance of the model. Table 1 schematizes the guidelines to validate the structural model using PLS-SEM.

Table following on the next page

Table 1: Structural Model Validation

NO	Assessment	Name of Index	Level of Acceptance	Literature Support
1.	Lateral Collinearity	Variance Inflator Factor (VIF)	VIF < 3.3 VIF < 5.0	Diamantopoulos and Siguaw (2006) (FMI Alnaser, Ghani, & Rahi, 2017; F Alnaser, Ghani, & Rahi, 2018; Hair Jr, Hult, Ringle, & Sarstedt, 2016)
2.	Path Coefficient	Path Coefficient	p value < 0.01 t value > 2.58 (two-tailed) t value > 2.33 (one-tailed) p value < 0.05 t value > 1.96 (two-tailed) t value > 1.645 (one-tailed)	(F. Alnaser, M. Ghani, S. Rahi, M. Mansour, & H. Abed, 2017; Hair Jr et al., 2016; S Rahi, Ghani, Alnaser, & Ngah, 2018; S Rahi, Ghani, & Ngah, 2018; S. Samar, Ghani, & Alnaser, 2017)
3.	R^2	Coefficient determination	0.26- substantial 0.13- moderate 0.02- weak 0.67- substantial 0.33- moderate 0.19- weak 0.75- substantial 0.50- moderate 0.25- weak	(F. M. I. Alnaser, M. A. Ghani, S. Rahi, M. Mansour, & H. Abed, 2017; Cohen, 1988; S. Rahi, 2017, 2018) Chin (1998); (Samar Rahi & Abd. Ghani, 2018a, 2018b; R. Samar & Mazuri, 2019a, 2019b) Hair Jr et al. (2016) (S Rahi, 2017; S Rahi, Ghani, & Muhamad, 2017)
4.	(f^2)	Effect Size to R^2	0.35- substantial 0.15- moderate 0.02- weak	Cohen (1988)
5.	Q^2	Stone-Geisser Q^2 Predictive relevance	Value larger than 0 indicates that exogenous constructs have predictive relevance over endogenous construct	Hair Jr et al. (2016) (Samar Rahi, Ghani, & Alnaser, 2017); Stone (1974) Geisser (1974); (Samar Rahi, 2016; Samar Rahi & Ghani, 2018a, 2018b; R. Samar, Norjaya, & Feras, 2017)

Source: Adopted from Ramayah, Cheah, Chuah, Ting, and Memon (2016)

4. DATA AND METHODS

The data that is collected for this research is primarily done through the use of the data collected from a set of steps that are used for this research. These are often used during PLS as a way to ensure that the data collected is according to the requirements set by the researcher that is conducting the marketing research. The data that is collected for this is from multiple countries that has a majority of Arabs in it. The countries that are included in this research are Bahrain, Egypt, Jordan, Kuwait, Libya, Morocco, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). The reason why these countries were considered is due to the fact that these countries are considered to be ideal for any organization to invest in when considering expanding to an Arab country. The figure below shows that the majority of the population is of the working class, which makes it ideal for any outside organization trying to do business over there.

The Arab Middle Class

COUNTRY Population	TOP OF PYRAMID	MIDDLE CLASS	BOTTOM OF PYRAMID
ALGERIA 36 million	17%	55%	28%
BAHRAIN 1.1 million	7%	60%	33%
EGYPT 80.4 million	13%	34%	53%
JORDAN 6.3 million	20%	41%	39%
KUWAIT 3.7 million	22%	57%	21%
LEBANON 4 million	10%	60%	30%
LIBYA 6.5 million	15%	35%	50%
MAURITANIA 3.5 million	3%	30%	67%
MOROCCO 32.2 million	13%	32%	55%
OMAN 3.1 million	6%	63%	31%
QATAR 1.8 million	8%	70%	22%
SAUDI ARABIA 28.2 million	13%	65%	22%
SUDAN 32.7 million	8%	46%	46%
SYRIA 20.8 million	3%	57%	40%
TUNISIA 10.7 million	22%	52%	26%
UAE 5.4 million	11%	60%	29%
YEMEN 25.1 million	4%	60%	36%

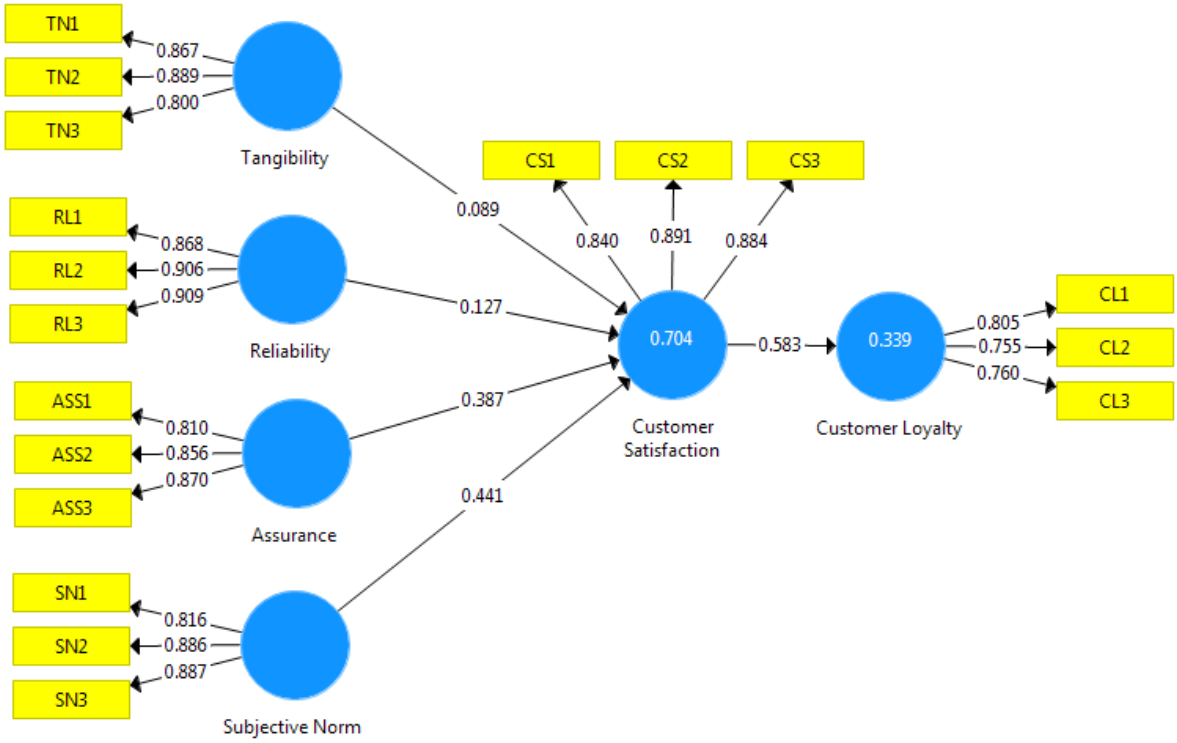
Figure 1: chart depicting what constituents the population in the Arab countries (Mahajan, 2013)

Since we are using Partial Least Square for determining the marketing strategies, a software tool can be used as a way to ensure that minimum errors are made from the researcher's side and the result is able to determine the practices that are effective for it. For this, SmartPLS will be used as it is used commonly for this work and it is able to do it in an efficient way.

5. HOW TO USE PLS-SEM

When applying PLS-SEM, researchers should follow a multi-stage process that involves various attributes of the inner and outer models along with its data collections. The study that we have taken for an example about PLS-SEM has planned to examine service quality in Islamic banks of Palestine by extending SERVQUAL model with subjective norms and customer satisfaction. The criticism on SERVQUAL model, however, needs to be considered as it could lead to researcher using the three dimensions of SERVQUAL model as suggested by (Raajpoot, 2004).

Figure 2: Measurement Model for the taken study



6. CONTRIBUTION

Common technique variance is a typically encountered source of bias specially whilst analysing survey research, and is constantly scary interest among IS researchers. In structural equation modelling equipment exist for controlling method bias, however most of them are advanced for CBSEM and are not immediately relevant to different strategies. These observe introduces a method for controlling common method variance in PLS path modelling context. The proposed method changed into examined underneath several conditions the usage of Monte Carlo simulation. The consequences propose that the proposed method can drastically decrease the bias because of common method variance in estimates while the use of PLS. The quantity to which this technique is beneficial depends on the extent of common approach variance present in facts. If the counselled remedies are introduced whilst not unusual method variance does now not exist in reality, the consequences have a tendency to come to be biased. Therefore is considered as a necessity to diagnose the quantity to which commonplace technique variance is present earlier than using this method and always jogging the model with and without the

approach factor. The quantity of marker variables blanketed have to replicate the sample size and complexity of the records: for big sample sizes and massive method variance stages, extra signs appear to provide better effects. In a few occasions, it is even affordable to include as many marker variables as there are noticeable variables within the version. When the use of the proposed method, it is recommended to use marker variables which are correlated most effective due to technique impact. However, as this situation is seldom fulfilled in exercise, it is recommended to affirm that no excessive correlations exist amongst marker variables, and if necessary, exclude rather correlating variables from the facts, finally this study is the first one in it is nature that target the beginner users in Arab region.

7. LIMITATION

This research has its own fair share of limitation. The reason these limitations exist due to the design of the research and what variables were considered for it. The first variable that is considered for this is the criteria that are set for this. For this research, the main settings and the criteria set for this were the factors that were considered for this, i.e. the preference of Arabs for incorporating their religion and culture together. This is primarily because it could limit the amount of marketing research that can be done for it (Wolfsfeld, Segev & Sheafer, 2013). Conducting a marketing research for Arab countries is considered to be a significant challenge in itself due to the difference in environment that is found. The difference in the culture is primarily fuelled with. For this, several research strategies can be made in order to ensure that more variables can be utilized during the research of this. In addition to this, it can be seen that the other factor that hinders the viability of the marketing strategy is the amount of data that is being used for this. This is because having a lower number of data does not help in finding an accurate result when performing an analysis. Ideally, it is required that a large number of data is used for analysing as it could help in making sure that the results generated from the model or the research methods is able to bring a result that is as close to accurate as it can be. Lastly, other limitations that are found in this research methodology are the lack of social media in this. This reason why these criteria can be crucial is because social media can help any organization to deliver their message to people across the world, including the countries and states that are within the Middle East region, where Arabs are mostly located. It is also seen that it has changed how people trade and do business as well (Cordeiro and Krempels, 2013). By not considering this, it can present a drawback that will not be able to answer what marketing strategies can be employed in order to target the Arab people (Cordeiro and Krempels, 2013; Wolfsfeld, Segev & Sheafer, 2013). Further researches that can be done on this can be made to utilize marketing research to determine the variables that can yield effective results for when utilizing social media for marketing in Arab countries.

8. CONCLUSION

From the research that was conducted, it can be seen that the results are able to determine the effectiveness of each of the variables that can be used for marketing research. This can help the marketing researcher to determine those values and variables that are able to determine what marketing research can be done for Arab countries. The limitations that are found in this research strategy can be mitigated in future researches as it could be made to primarily focus on expanding the result from this research to illustrate what further strategies can be used by the marketing researcher when conducting a marketing research for an Arab country.

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PREDICTIVE MODELS AND SCENARIOS OF ECONOMIC DEVELOPMENT OF THE REGION

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ABSTRACT

Statistical analysis of data becomes an integral part of the management system at all levels — from a small firm to the national economy as a whole. The article investigates the scientific views on forecasting the development of regions. In modern conditions of economic development, the implementation of a long-term national program is impossible without taking into account the specifics of regional development. This explains the importance of forecasting at the regional level. Regional forecasting represents the prospects for the functioning of the region at some point in the future. By means of the forecast the possibility of realization of the directions of the state social and economic policy in various spheres and at different levels is estimated. It is important to note that the state forecasting is based on the use of statistical data in the forecast period and recommendations of the subjects of the state, taking into account the opportunities and interests of the region. At the same time, the forecasts of socio – economic development of the regions are on the one hand an integral part of the state forecast, on the other determine the quality of the programs of socio – economic development of the region. The increased interest in this problem is explained by the fact that the forecast makes it possible to determine the probability of crisis situations in different regions of the country, and this in turn will contribute to the adoption of timely decisions in order to avoid negative consequences. Thus, regional forecasting performs analytical, diagnostic and foresight functions and is a mandatory tool for the development of the region's development prospects. This study focuses on the need for scenario forecasting and modeling, which take into account the influence of the main external and internal factors on the development of the regional economy and make it possible to obtain forecasts that reflect alternative development options. The algorithm of development of the regional forecast on the basis of scenario approach is described. Three scenarios of economic development in the region-optimistic, pessimistic and realistic. Taking into account the stated vision of the three scenarios of the regional economy development, the substantiation of certain provisions of the regional economy development strategy and specific mechanisms for solving the actual problems of its economic growth are considered. The problems arising in the process of forecasting are also identified, and recommendations for improving its efficiency are formulated.

Keywords: *forecasting, modeling, region, scenario analysis*

1. INTRODUCTION

The economic development of the country's regions is characterized by significant inter-regional differentiation, so the working out regional development policy should be based on the implementation of systemic regional forecasts, differentiated by areas, sectors and terms. Therefore, the formulation and implementation of national tasks must necessarily consider their territorial aspect, should take into account not only national but also regional priorities (Bystrov et al., 2017; Litvinenko, 2017). Namely the basis of the methodology of scenario regional forecasting is the knowledge and use of those laws that operate not only at the level of the whole state, but also its components. Forecasting of social and economic regional development is the object of increased attention of both scientists and Central and local authorities. This necessity is determined by the duration and complex nature of the solution of regional problems (Chistova, 2013). At the stage of the development of new market conditions in our country, an important role is played by the choice of methods of strategic economic management, which are based on the timeliness and reliability of the economic forecasts. Forecasting enters a fundamentally new stage of its development (Glotova et al., 2018; Titova et al., 2018). It is impossible to obtain accurate forecasts for solving increasingly complex problems which our state is facing without mastering modern scientific methods of modelling and forecasting. A serious problem of forecasting the priorities of social and economic development of the regions is the lack of formal procedures to achieve multidirectional and multi-quality objectives of the functioning of the individual regional subsystems. Information incompleteness and inability to quantify the goals and priorities of economic and social policy reduces the effectiveness of management decisions and the rationale for the choice of strategies (Aksyanova et al., 2011). As a result, there is a need for simultaneous implementation of many options for forecasting future situations. This principle is basic in the transition from traditional extrapolation to scenario approaches. The scenario method involves the creation of scenario development technologies that provide a higher probability of working out an effective solution in situations where this is possible, and minimizing the expected losses in situations where losses are unavoidable. Thus, the aim of the research is to use the scenario forecasting tool for social and economic development of the regions.

2. MODELLING OF PROCESSES OF REGIONAL SOCIO-ECONOMIC DEVELOPMENT

The algorithm of modelling and scenario forecasting of socio-economic development of the region is based on the following steps:

- First step - The choice of factors that INFLUENCE the development of the region's economy, and the resulting indicators, the values of which should be increased or decreased.
- Second step - With the help of correlation analysis definite factors are identified that have the strongest impact on the results.
- Third step - The construction of regression equations that will allow to establish the value of the dependence of the increase in the values of factors and their impact on the resulting indicators (Mamedsupiyev et al., 2008; Okhlopkov; 2013).
- Fourth step - The identification of possible scenarios for the forecasts of key indicators.

As indicators characterizing the level of socio-economic development of the region, the gross regional product and per capita income of the population were chosen. The definition of indicators that have a priority impact on GRP and incomes of the population will answer the question of priority measures in the economy of the regions, their priority for each region and the region as a whole, to accelerate its economic development. Let us identify the factors that affect the change in the resulting indicators. In our opinion, the basic determinants are demographic indicators, which play an important role in the formation of demosocial

prerequisites for the effective use of the labor potential of the population, followed by reflection in the results of the use of labor (Mhitaryan et al., 2008; Parshutich et al., 2017). The quantitative assessment of the demographic indicators of the region indicates favorable trends, but the question arises as to how effectively this socio-demographic potential is used in the labor resource sphere. Therefore, employment indicators play a very important role in the system of determinants of economic development. Employment is not only a sign of the effectiveness of the human factor (Petrov, 2011; Skotarenko, 2013). All spheres of life, including economic are under its influence, and they acquire new qualities-flexibility, dynamism, stability. The quantitative aspect of employment in qualitative terms reveals the indicator of income per person (Nizhegorodtsev et al, 2011). A comprehensive assessment of the factor impact on the economic development of the region requires taking into account educational indicators. The educational factor is traditionally considered from the standpoint of its social, cultural, spiritual and educational functionality; however, more attention is paid to its economic role, the effectiveness of which depends on whether the striking discrepancy between the productivity of education and the expectations of the economy in relation to its importance will be eliminated (Borisov et al., 2014). An important group of indicators that form the model of analysis of economic development of the region, are innovative ones. During the period 2000-2016 in the region there is an increase in the volume of innovative goods, works and services. To carry out forecast calculations, we denote the corresponding variables (table 1).

Table 1: Variables for the analysis of socio-economic development of the region

Variable	Indicator
x1	Population of the region, thousand people
x2	The average annual number of employed in the economy, thousand people.
x3	The volume of innovative goods, works, services, mln. rubles.
x4	Exports, million dollars USA
x5	Imports, million dollars USA
x6	Average monthly salary, rubles.
x7	Release of specialists by the higher professional institutions, thousand people.
x8	Investments in fixed capital, mln. rubles.
x9	Fixed assets in the economy, mln. rubles.
x10	Consumer price index, %
y1	GRP, mln. rubles.
y2	Average per capita income of the population, rubles.

Based on the selected indicators of socio-economic analysis of the region (table 1) and taking their dynamics for 2000-2016, we get the correlation matrix, the analysis of which allowed to identify the factors that have the greatest impact on the resulting indicators. These factors included: investment in fixed capital and the average annual number of employees in the economy. The final form of the table for the construction of step-by-step regression is obtained from the values of the factors (table. 2).

Table following on the next page

Table 2: Data for regression construction based on the values of the main indicators of socio-economic development of the Belgorod region

Years	y1	y2	x1	x2
2000	44440,4	1555	9242	671,3
2001	53707	2121	14031	677,5
2002	62404,4	2762	10830	673,4
2003	76054,5	3357	15336	668,3
2004	114409,3	4070	22685	670,7
2005	144987,8	5276	35022	674,7
2006	178846,1	7085	52073	677,4
2007	237013,3	9404	83510	678,7
2008	317656,3	12758	104218	679,9
2009	304345,3	14117	78033	681
2010	397069,9	16993	96313	693,5
2011	507839,8	18800	125994	698,1
2012	546151,5	21659	136820	700,1
2013	569006,4	23735	129405	700,2
2014	619677,7	25372	120658	699,1
2015	686357	28331	147214	754
2016	730562	29579	143802	756,8

At the next stage, we will use step-by-step regression to obtain equations for the GRP indicators of the region and population income (table. 3).

Table 3: The results of the regression analysis

Regression results for the dependent variable y1: R=0,982025, R2=0,964374, F=189,48						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-1736879	477767,5	-3,63	0,0027	-2761589	-712170
X Variable 1	3,420304	0,367967	9,29	2,29E-07	2,631094	4,209514
X Variable 2	2601,933	722,4113	3,60	0,0028	1052,515	4151,351
Regression results for the dependent variable y2: R=0,977557, R2=0,955617, F=150,7182						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-73046	21812,64	-3,34	0,0047	-119829	-26262,5
X Variable 1	0,137678	0,0168	8,19	1,03E-06	0,101647	0,17371
X Variable 2	109,4291	32,981	3,31	0,0050	38,68987	180,1683

Thus, the equation of step-by-step regression for the GRP indicator of the region, taking into account the results of correlation and regression analysis, will have the following form:

$$y1=-1736879+3,420304x1+2601,933x2$$

For the indicator of income:

$$y2=-73046+0,137678x1+109,4291x2$$

From the obtained equations it is clear that the relationship between the dependent and independent variables is adequately described, the model parameters are statistically significant with probabilities of 0.95 and 0.97, the value of t-statistics modulo exceed the table values of the Student's criterion. From the first equation we can make a conclusion that every significant increase of the first factor to one point will lead to the increase of the grp of the region to 3,5mln. rub., the second- to 2601 mln. rub. From the second equation there comes the increase in population income respectively to0,14 rub. and 109 rub.

3. SCENARIO FORECASTING OF SOCIAL AND ECONOMIC DEVELOPMENT OF THE REGION

On the basis of the obtained regression models, we will build a forecast of socio-economic development of the region for the next three years, highlighting three scenarios: basic, optimistic and pessimistic. Using trend models, separate forecast values for each factor were obtained. Thus, based on the data for 2000-2016, the following results were obtained (Figure 1, 2).

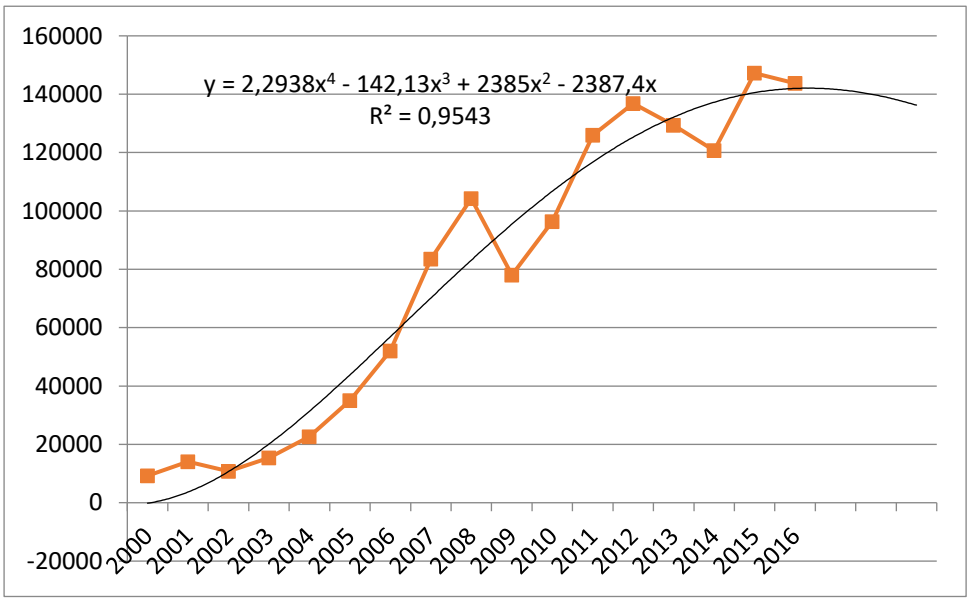


Figure 1: Dynamics of investments in fixed assets, mln. rubles

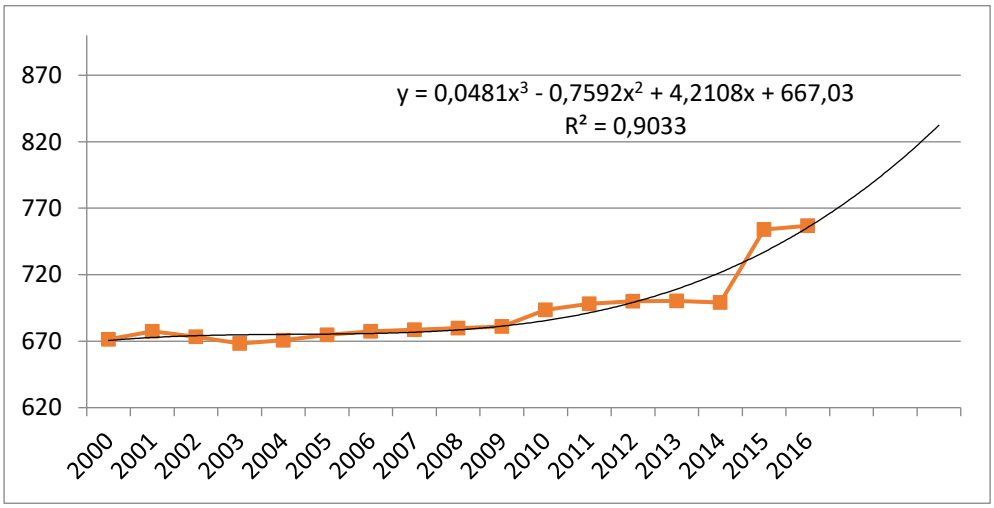


Figure 2: Dynamics of the average annual number of employed in the economy, thousand people

Table 3: Scenario forecast of GRP and per capita income of the region in the 2017-2019 biennium

Years	Scenarios		
	Base	Optimistic	Pessimistic
Investments in fixed capital, mln. rubles.			
2017	142309,4	156540,4	128078,5
2018	140493	154542,3	126443,7
2019	137212	150933,2	123490,8
Average annual number of employed in the economy, thousand people			
2017	777,4	855,14	699,66
2018	802,9	883,19	722,61
2019	831	914,1	747,9
The gross regional product, mln. rubles.			
2017	772559,7	1023504	521615,7
2018	832696,8	1089654	575739,1
2019	894589,9	1157737	631443
Average per capita income of the population, rubles.			
2017	31948,2	42447,62	21448,78
2018	34484,37	45237,41	23731,33
2019	37100,01	48114,61	26085,41

Consequently, in the pessimistic version of the forecast in the future the decline in indicators characterizing the socio-economic development of the region, and as a result, the slowdown in the growth of GRP and per capita income are expected. This process can be improved by the development of factors that influence the results. The optimistic scenario provides not only for the preservation of modern trends in economic development, but also their activation in the coming years, which will be accompanied by rapid regional economic growth, the formation of a modern effective structure of spatial development of the region's economy. The basic scenario is the most probable, it is connected with the extrapolation of the modern tendencies of the development of the economy of the region for the nearest time period. This is confirmed by the results of the development of the region in 2017. Based on the report "on the results of The Department of economic development of the Belgorod region for 2017 and the tasks for 2018" GRP in 2017 is 774, 7 billion rubles, which distinguishes it from the projected value to 0.3 %, and this indicates good quality of the model.

4. CONSLUSION

The process of scenario building is realized on the basis of diagnostic analysis and is closely connected with the forecasting process. It provides an opportunity to assess the most likely course of events and possible consequences and is designed to highlight key points in the development of the studied object and develop qualitatively different options for its dynamics on this basis , as well as for a comprehensive analysis and evaluation of each of the options, the study of its structural features and possible consequences of its implementation. The region, as a complex dynamic system, at any time can carry out its movement in one of the possible directions. In such cases, the scenario approach is used. It makes it possible to characterize the behavior of the region as an economic entity in the implementation of certain socio-economic hypotheses, since the development of scenarios will clarify all the positive and negative phenomena and events that may occur if one or another hypothesis is adopted. The probability of both an optimistic and a pessimistic scenario is extremely low. The most likely is a combination of" positive "and" negative " events, so the most likely scenarios are considered. Thus, scenario analysis showed that sustainable socio-economic growth of the region is possible only with a stable increase in the values of the considered indicators.

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SUSTAINABLE DEVELOPMENT ASPECTS OF INFORMATION SOCIETY

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ABSTRACT

Information society is the new stage of development of a civilization, concept of post-industrial society. Improvement of the main characteristics of information and communication technologies, is considered a necessary step for satisfaction of important conditions of democracy in information society. The research of sustainable development of information society is important in terms of the solution of global problems. To characterize these aspects it is necessary to conduct a complex research. In this case, advantages of information society have to be defined and also influences of information society on global problems are estimated. The main essence of this article is made by a research in terms of sustainable development of the main priorities and aspects of development of information society. In article are characterized the visible contours of information society, and are revealed its advantages and threats. It is also estimated influence of information society to global problems. Functions of information society from a point sight of ensuring sustainable development are specified. Possibilities of sustainable development of information society are opened, its potential opportunities for the solution of global problems are investigated. Are characterized a view from Azerbaijan of aspects of sustainable development of information society and the taken steps.

Keywords: *global problems, information society, asymmetry of information, sustainable development, advantages, model, ecology, infrastructure, competitiveness, threats*

1. INTRODUCTION

The study of sustainable development aspects of information society is of crucial importance from viewpoint of solving global problems. There is a need for complex research to characterize those aspects. In this case, advantages and threats of information society to the development should be identified and impact of information society on global issues should be assessed. Sustainable development opportunities should be detected in the information society, and existing potential should be explored for the realization of those opportunities. From the standpoint of sustainable development, it should be commented on priorities of the information

society. These and other factors turn the sustainable development aspects of information society into pressing issue.

2. VISIBLE FEATURES OF INFORMATION SOCIETY

Information society, is a new stage in development of civilization, the concept of post-industrial society. The success of the information society concept, as seen from the experience, depends on what extend the stakeholders supporting it cover all population groups. In other words, there is a close correlation relationship in the information society between the success and the positive attitude of the majority. But the positive attitude spoken about, of course, is related democratic principles not contradicting with the democratic principles. An important condition for democracy in the information society is to get free and honest information. The role of the technological factor is growing day by day in undistorted dissemination of free and honest information, and in ensuring free accessibility of stakeholders.Therefore, to meet the essential conditions of democracy spoken about in the information society, the improvement of relevant characteristics of information-communication technologies is a necessary step. At the same time, it should not be forgotten that the communication is a key element of the information society and its development is accompanied by the decline in mass information services. Otherwise, it is impossible for more and more people to deal with information technology and knowledge transfer. Information society is created in the process of bounces and evolution. In our oppinion, considering the invention of writing and book printing, development of communication tools and invention of computers information revolutions in the history of mankind does not reduce the role of evolution in the formation of information society. It should be noted that the formation of paper currency did not play a significant role in the development of information relations, either from the "revolutions" or from the formation of virtual money. It should be noted, that the advent of paper money did not play a little role neither than above listed revolutions nor than formation of virtual money in the development of information relations. Linking the establishment of economic basis of information society with the invention of computers and technical means of organization is basically the service of scientific publicity rather than academic science. However, specially starting from that time not only change in production, but also in lifestyle of people, increase in demand for creativity and knowledge and clear apperance of features of information society has come the reality. The information society has to be able both to eliminate information hunger and overcome information flow in the the world where the size of information is doubled after each 3 years. At the same time, the information society is most likely able to expand potential opportunities for reducing the asymmetry of market information. Let's just point out that the high percentage of semantic crossings in the news on multiple repetitions and analogical situations in information exchange can increase the opportunities for equal distribution of information among market participants. The networking of the information society has a positive impact on these opportunities by accelerating economic integration, in spite of economic barriers, including economic frontiers. Information has direct impact on competitiveness of economic agents after being converted into economic resource and mass consumable product. The economic purpose of the information society is to increase the competitiveness of material and non-material production with certain prerequisites, including the service oriented to appropriation of the benefit. Thus, the visible signs of the information society my include formation of information economy, culture, infrastructure, legislation and so on. can be attributed to the formation. The emergence of e-government is regarded as the development and support of digital markets, and e-farming network, while popularization of e-democracy value is regarded as signs of institutional development of information society. The information society expands the possibilities of using research outputs in the solution of global problems. While the increasing importance of knowledge in this society increases the role of science, it reduces groundless claims to

fundamentalism in scientific theseses. One of the important reasons stipulating such situation is the prevalence of experimental summaries in formation of technological knowledge rather than scientific- theoretical. In other words, there is a decline in scientific evidence to be proven in the information society. In each case, technological knowledge that requires actual justification and verification is almost exclusively related to technological skills. Thus, the information society requires the status of a highly skilled specialist, as well as the necessary professional skills at the professional level. The fact that regular attempts to repeat the best practice in the information society do not justify itself, it creates a vicious circle effect. It leads to formation of such a "science" which requires to pursue what is ahead from technological viewpoint. This leads to the inertia of technological thinking and enhances undesirable technological dependence. For instance, a person who cannot build "smart kitchen" will never think to build "smart city. The phrases like "who lag behind don't repeat the mistakes " can be regarded as provisions of this "science". The principles of global information society like- ensuring fair competition, free access to national and world information networks, promoting private investments in the development of these networks and so on. should serve the developing countries to get out from a magic circle like " always pursue what is ahead". At the same time, it is well known that in the case of high technological activity, requests for certain information can be restricted and copyright protection issues will remain as pressing issues. It is expected that the issue of minimizing the impact of these factors restricting e-democracy will be resolved through the technological and social development of the information society. The Information Society is able to support the careful and emotional approach of the public to the problems of social importance by ensuring access to quality information on these problems. For this, the information society, in the absence of economic motivation, also supports "the transformation of the information into public consciousness and into publicopinion as particular type of it, as well as the existence of social institutions interested in this or that situation" (Braliyev, 2008, pp.19). In the information society, bringing competitive economic activity into line with sustainable development requirements, including into its environmental regulations requires formation of substantial internal potential. This potential can be expressed in transformation of non-economic resources. For example, the popularity is an important resource for information society. On the other hand, the hypothesis that in the near future machines will primarily deal with material and energy production, and people will deal with management of technological and economic process as well as with information process, does not give reason to optimism about sustainable development prospects. In the information society, there are the following problems threatening sustainable development:

- inequality in distribution of information resources. Such a situation, contrary to the requirements of sustainable development, does not serve to reduce the gap between developed and developing countries (civilizations);
- strengthened information flow aggravates the problem of selecting precise and high quality information;
- virtualization of public relations, makes the personal space of any member of society narrow;
- the dependence on global networks, almost irrespective of its nature always accompanies innovation searches;
- domination signs in unification of cultures create unclear resistance in developing countries (civilizations), the attitude towards sustainable developmental values gets complicated
- the trust to mass media decreases;
- cybercrime represents a serious threat to network economy and becomes a tool of international terrorism.

Though information society has more potential advantages, their potential opportunities in terms of sustainable development should primarily include the following:

- information society intensifies globalization processes and its existence in a separate country is almost impossible.
- limiting relations of digital economy with global information and economic processes within the national framework does not look real;
- the support of state and national traits in this process does not conform to the fundamental principles of the information society;
- information society should serve to create a single information environment for all humanity;
- the unification and simplification of the requirements for the network structure in the digital economy expands its capabilities to support sustainable development.

In order to answer the question of which problems does the information society create or aggravate, let's consider the problems of humanity before the establishment of that society: social inequality, refugees, IDPs, migrants, terrorism, environmental contamination reaches at catastrophe level, biodiversity reduction, global warming, drugs, etc. Following are mentioned problems of mankind that get aggravated in the process of establishment of information society: social inequality, refugees, IDPs, migrants, terrorism, drugs, global warming. Apparently, the information society has not diminished the list of human problems, and some of them are even aggravated in that society. In the fight against ecological crisis, the possibilities of the information society are relatively actively used, and the signs of some are becoming appear. The point is that, the humanity struggling with the nature for hundreds thousand years eventually began to understand the importance of dialogue and cooperation with the nature. It should be noted that, the expectations from the information society in the solution of global ecological problems have been greater in the last century. (Orlov, 1999, pp. 112). Information society has always been able to keep the ecological disruptions on the agenda by ensuring the reliability and sustainability of the alarms on the increasing role of technogenic factors in environmental issues. The increase of social inequality is also observed in information society. However, probability to weaken this tendency may rise just as the vital importance of sustainable development is understood (Tomas Piketty, 2016).

3. SUSTAINABLE DEVELOPMENT IN THE INFORMATION SOCIETY

Sustainable development that ensures meeting the needs of current generation without diminishing opportunity to meet needs of future generations, envisages agreed efforts to build inclusive, sustainable and reliable future on global scale. In this case, economic growth, inclusive society and the environmental protection should be be promoted and ensured. Currently, the main models of information society are mainly Finland, Singapore and Silicon Valley models. Information society developing on the basis of social community and controlled publicly – a (Finnish) model; an authoritarian information society based on market relations-a ("Singapore") model; and an open information society activated by market forces- (Silicon Valley (USA) model. It should be noted that these countries currently occupy the top three positions in the world in development of information society technology. It is interesting to note, that Finland, US and Singapore with high technology development index calculated by UN also present the highest economic competitiveness index in the world. For example, Finland after getting out of the 1990-1993 crisis on account of the state support to innovations, preferred public-controlled open model of innovation society. Finland has embarked on integrating the information economy into the global financial markets after joining the European Union. It is not difficult to see that the listed models of regulation national economies of the listed countries have not remained ineffective on the nature of information models.

Therefore, it is likely that in the future, the number of information society models will increase, i.e. there is a high likelihood of creating original models by developing countries. However, it is possible to say that The model of social character seems more promising in terms of sustainable development requirements than open information society model activated by market forces, and the authoritarian information society model that develops on the basis of market relations (Manuel Castells and Pekka Himanen, 2002). The point is that the social aspect of sustainable development of information society, directly depends on the effectiveness of the social inequality reduction policy In this regard, the Finnish model of information society is remarkable. Jeanie's coefficient in this country is almost lower than in the majority of the countries (Jeanie's coefficient over the countries from https://theworldonly.org). Apparently from the latest history, gaining sustainable development through evolution seems more realistic. However, it is required to take radical steps for sustainable development which is required to prevent global environmental crisis.. Whereas, to achieve sustainable development goals countries may only be recommended to take a number of radical steps. The National Information Infrastructure Program, which provides government support to information resources developers and any user who applies to them, operates in the US. This program supports access to the state information resources, information resources of libraries, information resources of education, health care and the environment. The works done within the National Information Infrastructure program also serves improving condition of use of world information resources. Sustainable development considers that if climate change is out of the focus of attention , the community will not only lose the achievements gained, but will not also be able to make progress in the future. In the United States National Climate Assessment Report (2018), despite the fact that this threat is self-evident, the time will show in what extent it will be considered in making political decision. However, it is possible to reduce emissions of greenhouse gases in order to reduce the negative effects of climate change. In terms of sustainable development, information society has to ensure – the joint solution of economic, social, technological and environmental problems as non-alternative solution; environmental regulation of technological development without exception; keeping the issues on information security and preventive measures in its improvenet always on the agenda. From this point of view, the issues of legal regulation of the activities of information service providers are especially urgent. The point is that there are a lot of issues like information search, distant education, e-commerce and a series of activities like this to be resolved in the legal field and require legal regulation. Unreasonable delay in the formation of the relevant normative and legal framework and absence of support to international cooperation may strengthen undesirable trends. The issues of implementation of technological capacities in support of sustainable development of information society are on the agenda. Development of biometrics, including the creation of automated machines knowing people, application of international and internal passports with biometric identification mass utilization of cryptography should be noted as part of work done in this direction. By the way, the massive use of cryptography (for example, cryptographic protection of payment by SIM card) has provided the mass use of mobile communication. The education has the growing role in realization of sustainable development opportunities of information society. High dynamism charcteristic for this society, rapid reduction of life cycle of innovations (product and process innovations) require formation of a system enabling realiztion of qualitatively new, faster, uninterrupted and cohesive personnel training and re-training. Information society helps to make education accessible to more people by improving distance education. The impact of information society on urbanization processes should not be neglected in order to achieve sustainable development goals (UN Azerbaijan. 2030 Agenda for Sustainable Development, 01.01.2016), which will ensure the openness, safety, sustainability and environmental sustainability of urban and rural areas.

Technological opportunities of the information society in terms of supporting sustainable development are expanding through the integration of action. The level of this integration is many times higher in big cities which emerge as active economic area, initial polygon of formation of information society and as economic consequence of urbanization processes. "The integration of activities strengthens the creative elements, leads to integration colorfulness, which, in turn, serves to innovation. In the last decades of technologicalization of knowledge, a new demand for each stage of continuous activity is formed. Their realization can be met in an adequate information society and in urban environments that are a showcase of this community" (Balayev, 2007, pp. 65). However, it is difficult to say justified opinion since the studies on differences in the role of information society in sustainable development of economy of cities and regions have not been carried out.

4. VIEWS FROM AZERBAIJAN AND STEPS TAKEN

Systematic and continuous measures are being taken in the Republic of Azerbaijan to achieve the formation of an information society and achieve sustainable development goals. As a result of implementation of the "National Strategy for Information and Communication Technologies for the Development of the Republic of Azerbaijan (2003-2012)" approved by the decree of the President of the Republic of Azerbaijan of February 17, 2003, and state programs adopted on its realization, the level of use of information technologies has increased in social and economic spheres, as well as in the life of peoples. More than 75 percent of the country's population are internet users, including 65 percent of broadband internet users. . The range of e-services in Azerbaijan has been expanded many times and e-Government projects are being implemented. "National Strategy for the Development of Information Society in the Republic of Azerbaijan for 2014-2020" (Decree of the President of the Republic of Azerbaijan dated April 2, 2014 № 359) has been approved , and in order to ensure its execution "State Program for the implementation of the National Strategy for the Development of Information Society in the Republic of Azerbaijan for 2016-2020" (Order of the President of the Republic of Azerbaijan dated September 20, 2016) has been implementing. Through the implementation of the program, the achievement of the following outcomes is envisaged which are of particular importance in terms of sustainable development goals (UN Azerbaijan. 2030 Agenda for Sustainable Development, 01.01.2016): meeting increasing demand of population for r safe, cheap and high-quality ICT services; creation of favorable conditions for citizens, especially low-income and socially sensitive populations, to benefit from the resources of information society; reduction of "digital distinction" between different groups of population, urban and rural settlements; Offering all necessary facilities to ensure rights of citizens access to information; extending researches on space, nano and nuclear technology, biotechnology, electronics and new information technologies and the application of their results; enhancing competitive, export-oriented and innovative economic potential in the high-tech sector; raising the level of citizens' e-health card coverage; expanding the application of distance education, electronic science, e-commerce, tele-health and other forms of business; protection of the security of the country's information space and, so on. In Azerbaijan, which joined the list of cosmic countries, access to information society potential in terms of sustainable development has increased. Measures taken in the formation of information society in the republic yields a positive result. Azerbaijan ranked 53th out of 139 countries in the "Global Information Technologies-2016" report of the World Economic Forum by the" Network Readiness Index". One of the most noteworthy points is the inclusion of Azerbaijan among the top ten countries in the world according to pace of development, in "Information Society Measurement" reports developed by International Telecommunication Union. In order to achieve Sustainable Development Goals, there should be a comprehensive approach in terms of economic, social, institutional and political aspects.

Taking this into account, the President of the Republic of Azerbaijan signed the Decree on the establishment of the National Coordinating Council on Sustainable Development of Azerbaijan (October 6, 2016) to coordinate the implementation of the responsibilities of the state bodies in relation to the commitments arising from the agenda on sustainable development until 2030. As stated in the 2030 Agenda for Sustainable Development, "the use of global indicators for monitoring and analysis of the development goals, development of national indicators by the government to provide support to monitoring process" (UN Azerbaijan. 2030 Agenda for Sustainable Development, 01.01.2016) is of importance. own national indicators to support the monitoring process". Thus, thematic workshops are held in the State Statistical Committee of Azerbaijan on "Transformation of our world: to provide the information needed to monitor activities at various levels of (national, regional, and global) on goals and targets defined in the Agenda on sustainable development until 2030. Various issues are discussed at different events that include but are not limited to food loss, crop and animal genetic resources for agriculture and food, agricultural lands suitable for sustainable development, price anomalies in food market, level of load on water resources, production and exchange of information on available indicators for monitoring and evaluation in the field of sustainable forest management (In the State Statistical Committee are held the thematic seminars about indicators of sustainable development goals, 26.09.2018).

5. CONCLUSION

The economic target of the information society is to increase competitiveness of material and non-material production, including the service oriented to assimilation of benefit. The Information Society is capable of expanding potential capabilities for mitigating the assimmetricity of market information, and highlighting the high specific weight of semantic crossings in news reports on the analogical situation in information exchange by enhancing the capability of providing equal distribution of information among market participants. The fact that persistent attempts to repeat the best practice in that society creates a viccious circle effect. It leads to formation of such a "science" which requires to pursue what is ahead from technological viewpoint. This leads to the inertia of thinking and enhances technological dependence. In our opinion a socially-oriented model of information society is more promising in terms of sustainable development requirements. From the viewpoint of these requirements, information society has to ensure – the joint solution of economic, social, technological and environmental problems as non-alternative solution; environmental regulation of technological development without exception; keeping the issues on information security and preventive measures in its improvenet always on the agenda.

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DESIGNING SURVEY RESEARCH: RECOMMENDATION FOR QUESTIONNAIRE DEVELOPMENT, CALCULATING SAMPLE SIZE AND SELECTING RESEARCH PARADIGMS

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ABSTRACT

The present study aims to provide a brief guideline to novice researchers that how to develop research questionnaire, research paradigm and theory in a survey based research. Using pragmatic approach, this study has discussed questionnaire development process in detail including questionnaire wording and formatting. Extending to this research paradigms and theory levels have been discussed. This study goes a step further and described sampling issues such as selecting appropriate sample size. Moreover, research methods for instance quantitative and qualitative research methods have been discussed. The main contribution of this study was to examine the sampling size issue. A meticulous review has bared the exact sample size that is supported by different researchers. Banking sector has been used for the development of questionnaire and sample size selection. Overall this article is designed to give beginner researchers advice and support to help them to design good questionnaires, to maximize their response rate, and to undertake appropriate data analysis.

Keywords: *Questionnaire design, Research methods, Sampling issues, Research paradigms, Banking research*

1. INTRODUCTION

According to Rowley (2014) questionnaire is used where the researcher wants to profile the sample in terms of numbers or to be able to get the frequency of beliefs, opinions, process, behaviors, experience or prediction. Questionnaire should not only suit with the research and the researcher but also to respondents (S Rahi, 2017; S. Rahi, 2017; Rowley, 2014). Extending to this, Zikmund (2000) stated that in data collection process usage of questionnaire is the most efficient method, especially in a situation where researcher know exactly what should need to be asked and how to measures the factors. As the research method is quantitative it seems perfect to use survey questionnaire for inquiry mode (Rahi, 2018a, 2018b; Zikmund, 2000). There are certain steps that involved in questionnaire development process and suggested by Zikmund (2000). These steps can be summarized as:

1. Set up clear objectives: The study objective should be clear and relevant with research question (S. Rahi & M. A. Ghani, 2018b; Zikmund, 2000). Thus, following above argument questionnaire was developed with pre-defined instrument adopted from previous research work. Furthermore, these research questions contained necessary information that required for answering the question or testing the hypothesis. Research instrument was reported in previous section.

2. In line with previous research: Questionnaire must be relevant with variables (S. Rahi & M. A. Ghani, 2018a; Zikmund, 2000). Thus, a detailed literature review was conducted Moreover, the research items were linked with proposed constructs. Lastly, questionnaire items were adapted in internet banking context in order to get relevant response.
3. Compare Questionnaire Design: The design of the questionnaire was also compared with previous research work by Martins, Oliveira, and Popovič (2014) and (Ho & Lin, 2010). The main objective of this comparison was to detect the easiness in questionnaire formatting to ascertain the correct vocabulary and respondent point of view towards internet banking adoption.
4. Use of multiple items:In order to achieve maximum perception of the respondents towards question, multiple item measures should be used (Churchill & Iacobucci, 2006). Thus, in this study each construct has used three or more than three items. According to Churchill and Iacobucci (2006), multiple item measures must be used because a single item cannot provide a perfect representation of the concept.
5. Expert Comments: Questionnaire should be reviewed by experts those belongs to same research domain (F. M. Alnaser et al., 2018; S. Rahi & M. Ghani, 2018; Zikmund, 2000). Thus, in order to fulfill this requirement, research questionnaire was reviewed by one academic professor belongs to e-commerce domain and two bank managers.
6. Pre-test of the questionnaire: Pre-test and pilot-test must conduct before actual data collection in order to validate the instrument and ensure that the questionnaire is free from errors and ambiguities (Rahi, 2015; Zikmund, 2000). Thus, in this study pre-test was conducted in order to check the comprehensibility of the questionnaire.
7. Pilot-testing: Pilot test should be incorporated in order to assess the psychometric properties of the measures (Rahi, 2016a, 2016b; Zikmund, 2000). By following above argument a pilot study was also conducted in order to measure the reliability and validity of the questionnaire.

Authors like Pinsonneault and Kraemer (1993) have stated, there are three main objectives for conducting research with survey questionnaire at first when data of the research is based on quantitative methods; second, instruments are used in research must be pre-defined and lastly research work that requires to analyze finding of a sample to whole population. In this study, researcher made utmost effort to keep the questionnaire simple, easy to read and unambiguous. The question items and response categories were designed in such a way so that it motivates the respondents to participate in this study. According to K. Malhotra (1999) and Rowley (2014) questionnaire should be designed in a way to try to obtain accurate and complete information about the research problem. Thus, questionnaire development process was considered respondent to understand the questions easily, kept their interest alive and reducing chances of misunderstanding (S. Rahi & M. Ghani, 2016; S. Rahi & M. A. Ghani, 2016). In this study, the researcher has developed a questionnaire in order to meet the aims and objective of the study. Pre-define instruments derived from previous theories and construct were used for data collection. By following convenience sampling a data set of internet banking users was drawn from the population. The survey questionnaire is comprised in two parts. In the first part respondents were asked to provide demographic information such as age, gender, education, employment and know how about internet usage. In the second part, scale items of different constructs linked with research framework were drafted.

1.1. Questionnaire Content

In line with the objectives i.e. intention to adopt internet banking, this study collects the data from respondents based on their opinions and beliefs. Therefore, the questionnaire contents were kept simple and easy to understand. The good questionnaire development process is

incorporated principle of design, brief contents and positive questions (F. Alnaser, M. Ghani, S. Rahi, M. Mansour, & H. Abed, 2017; D. Cooper & Schindler, 2001; Ghani, Rahi, Yasin, & Alnaser, 2017). The questionnaire should be understandable for all respondents so that they would not feel any difficulty to complete the questionnaire (Rahi, Ghani, & Muhamad, 2017; Rowley, 2014).

1.2. Questionnaire Wording

The questionnaire wording was kept simple, easy and understandable. The questionnaire wording principles was used as suggested by D. Cooper and Schindler (2001). Researcher has strictly followed the standard wording process during the whole design of questionnaire. The wording as well as technical impression of the questions was kept easy and supported by literature. The simple formatting and wording of the questionnaire was helped to minimize the respondent's biases and measurement error (F. M. I. Alnaser, M. A. Ghani, S. Rahi, M. Mansour, & H. Abed, 2017; D. Cooper & Schindler, 2001; Rahi, Ghani, & Alnaser, 2017).

1.3. Questionnaire Language

The questionnaire was developed in English language for the sake of easy understanding. The reason for doing this is the respondent language. In Pakistan English is the 2nd largest known language. Furthermore, banking websitesare also in English language. According to Rahi and Abd. Ghani (2018b) most of the communication of banks such as broachers, billboards, and the websites has been introduced in English language.

1.4. Response Formatting

The researcher has incorporated close ended question in order to obtain individual perception about internet banking adoption in Pakistan. The close ended questionnaire help to eliminate researcher's bias. In addition to that, this format reduce the amount of thinking and effort required by respondent in answering the question (Joseph F Hair, 2010; R. Samar, Norjaya, & Feras, 2017). According to Lorelle Frazer and Lawley (2000) close-ended questions in the survey questionnaire keep the context of the question same for all respondents. Thus, the researcher used the close-ended responses to avoid response bias that associate with the way respondent respond to question (F Alnaser, Ghani, & Rahi, 2018; Alreck & Settle, 1994). Moreover, questions were grouped by constructs and placed in logical sequence by using funnel approach as suggested by (Lorelle Frazer & Lawley, 2000).

2. RESEARCH PARADIGMS

The term 'paradigm' described as essential collection of beliefs shared by scientists, a set of agreements about how problems are to be understood, how we view the world and thus go about conducting research (FMI Alnaser, Ghani, & Rahi, 2017; Creswell, 2003). Thus, these paradigms contains a basic set of beliefs or assumptions that guide our inquiries for a particular research (Guba & Lincoln, 2005; Rahi, Ghani, Alnaser, & Ngah, 2018). In views of this, author like Myers and Avison (2002) have stated that for defining a valid research the most recommended method is to follow the research paradigm. This is essential because by selecting a specific paradigm researcher does not dwell in his own philosophical know-how and get a better stance chosen in relation to other alternatives. There are mainly four paradigms that have been widely used in information system research include Positivism, Interpretive, Advocacy and Pragmatism (S. Samar, Ghani, & Alnaser, 2017; Willcocks & Mingers, 2004). Positivist, Interpretive and Advocacy paradigm are discussed below as Pragmatism is the combination of Interpretive and Positivism. Table 1 depicts key functionalities of all paradigms posited by (Creswell, 2003; Rahi, Ghani, & Ngah, 2018).

Research Paradigm/Knowledge Claim Positions	
Positivist	**Constructivism**
• Determination • Reductionism • Empirical Observation and measurement • Theory Verification	• Understanding • Multiple participant meanings • Social and historical construction • Theory Generation
Advocacy/Participatory	**Pragmatism**
• Political • Empowerment issue-oriented • Collaborative • Change-oriented	• Consequences of actions • Problem-centered • Pluralistic • Real-world practice oriented

Table 1: Research Paradigm/Knowledge Claim Positions

2.1. The Positivist Paradigm

The supporters of this paradigm believe that true knowledge can be obtained through observation and experiment (Guba & Lincoln, 2005). So Positivists normally select scientific method to produce knowledge. Positivism is also called Scientific Method, Empirical Science, Post Positivism and Quantitative Research (Guba & Lincoln, 2005). Levine, Sober, and Wright (1987) discussed that in positivism reality remains stable and can be observed or described through an objective. A strong debate is available on the issue of using positivist paradigm that whether it is appropriate for social sciences or not (Hirschheim, 1985).

2.2. The Interpretive Paradigm

The supporter of interpretive paradigm believes on the deep understanding of a concept and explores the understanding of the world in which they live. They develop subjective meanings of their experiences or towards certain objects or things. This paradigm is also called Constructivism, Social Constructivism or Qualitative Research paradigm (Guba & Lincoln, 1994). Interpretive believe that true knowledge can only be obtained by deep interpretation of subject.

2.3. The Advocacy/Participatory Paradigm

The supporters of advocacy paradigm claim knowledge through an advocacy paradigm. This paradigm is also known as critical paradigm. A debate started during the 1980s and 1990s from individuals who felt that positivist paradigm does not adequately address on social and political issues (Creswell, 2003). In views of this, authors like (Fay, 1987; Kemmis & Wilkinson, 1998) have arose the importance of advocacy paradigm in their studies. These researchers believe that inquiry needs to be entangled with political and social issues. In accession of this research should contain the agenda of reform that ultimately address the issues of empowerment, inequality, oppression, domination, suppression, and alienation (Creswell, 2003).

2.4. The Pragmatism Paradigm

The aim of this paradigm is to find the weaknesses in the study and to strengthen it by using mix method approach (Johnson & Onwuegbuzie, 2004). The supporter of this paradigm believes that true knowledge can be obtained by mix method approach. Instead of method being important, the problem is most important and researchers should use all approaches to understand the problem statement (Tashakkori & Teddlie, 1998). Pragmatism is not affiliated to any system or philosophy. The researchers are free to use both quantitative and qualitative approaches; the essential is to find the best techniques and procedure of research that solve problem statement (Creswell, 2003).

3. PHILOSOPHICAL ASSUMPTIONS

There are seven different philosophical assumptions comprise Ontology, Epistemology, Axiology, Rhetoric, Methodology, Strategies of Inquiry and Methods that follows all four paradigms. Ontology deals with the nature of reality about the concept of knowledge whereas Epistemology deals with the connection between the researcher and that being researched (Creswell & Clark, 2007; Rahi & Abd. Ghani, 2018a).

3.1. Levels of Theory

Theory is a standardized principle on which basis we can explain the relationship between two or more concepts and variables (Creswell & Clark, 2007). There are two levels of theory first abstract level that follows inductive theory approach and second is empirical level that follows deductive theory approach.

3.2. Inductive Level

Collis and Hussey (2013) defined inductive approach this approach elaborate a process where theory is developed by observation that what researcher has observed during his research more over it may called a process where you induce or inferences your thought about a specific object or variable. In accession to this Collis and Hussey (2013) have explained the induction process in which a relationship between meanings and actions of human subjects are used to be observed and investigated.

3.3. Deductive Level

According to (Collis et al., 2003(R. Samar & Mazuri, 2019a)) deductive approach where you don't get theory from observation theory already existed and proved by researchers moreover you can explain a research that based on empirical observation and theory generated on conceptual and theoretical structure. Generally researcher intends to test a theory by collecting the fresh data from respondents and observe the findings by applying various statistical tests. This method is generally recommended for specific studies in which researcher work on particular concept by creating assumptions and then verifying those assumptions(Collis & Hussey, 2013; R. Samar & Mazuri, 2019b).

4. RESEARCH METHODS

Despite the existence of many research method classification quantitative and qualitative methods are the most dominating methods (Johnson & Onwuegbuzie, 2004). Detailed descriptions of these two methods are stated below.

4.1. Qualitative Method

Qualitative method is used to collect the in-depth details on a particular topic. This approach assumes a single person represents the group feelings and emotions of a person are equally important to interpret which are ignored by the quantitative method. This approach is usually used by the interpretive. Authors like Tashakkori and Creswell (2007) have explained that this approach is used when researcher wants to observe or interpret an environment with the intention to develop a theory.

4.2. Quantitative Method

Quantitative method is a scientific method and its grounds can be identified in positivist paradigm (Grinnell Jr & Unrau, 2010). This method focuses on fresh data collection in accordance to the problem from large population and analysis of the data but ignore an individual's emotions and feelings or environmental context (Creswell & Clark, 2007). Similar to this (Tashakkori & Creswell, 2007) have discussed that the quantitative strategy works on

objective and measure it through the actions and opinions which helps researcher to describe the data rather to interpret the data.

4.3. Research Objectives and Classification

There are three basic forms of research objectives that includes exploratory research, descriptive research, explanatory research (Creswell & Clark, 2007). The purpose of exploratory research is to seek new insights and find out what is happening. There is an attempt to ask questions and asses phenomena in a new light. This type of research is usually adopted in early stages of research where the concepts are not clear enough to develop an operational definition (Tashakkori & Creswell, 2007). A more qualitative approach often underpins this sort of inquiry and the focus is on obtaining new insights into current situations and issues (Myers & Avison, 2002). Descriptive method of research refers to the type of research that aimed at obtaining information on current state of phenomena. This type of research sets out to provide an accurate profile of situations, people or events (Creswell, 2003). Similar to this accession author like Polit, Beck, and Hungler (2001) have stated that descriptive research seeks to observe and document an occurring phenomenon which cannot be ascribed an objective value. Cohen, Manion, and Morrison (2013) have posited that explanatory research helps this type of study for instance explanatory research helps to find out the reasons behind the occurrence of a particular phenomenon. Explanatory research explains a situation or problem usually in the form of casual relationships. This type of research helps one to get fresh insight into a situation in order to build, elaborate, extend or test a theory (Creswell & Clark, 2007). The prime objective of explanatory research is to identify issues and key variable in a given research problem. This approach is much relevant to quantitative.

4.4. Research Strategy

Research Strategy defines it is a process of collecting and interpreting of data with a clear objectives. Easterby-Smith, Thorpe, and Jackson (2012) have stated that, research strategy is a general plan like how to answer the research question that has been set by researcher. Yin (1994) has posited that, based on three conditions-research question, control on behavioral events, focus on contemporary events there are five key research strategies in social sciences. These are: experiment, surveys, archival analysis, histories and case studies.

4.4.1. Experiments

The experimental method involves the process of variable testing where the impact of one variable can be seen with other variables. Similar to this accession N. K. Malhotra, Agarwal, and Peterson (1996) have opined that this strategy is used when researcher examine cause and effect relationships among variables.

4.4.2. Survey

The survey strategy is popular in social sciences and associated with deductive research approach (Mark, Philip, & Adrian, 2009). In this research strategy information is collected by interviews or pre-designed questionnaire (Yin, 1994).

4.4.3. Archival Analysis

The archival strategy reports the incidence and prevalence relates to a specific phenomenon (Mark et al., 2009). However it is difficult to use this strategy when it comes in research area (Mark et al., 2009).

4.4.4. History

This research strategy is used to explore past issues. This strategy is adopted especially when no relevant person is alive to give answer or to report about particular issue (Mark et al., 2009).

4.4.5. Case Study

The case study strategy is a written description of a problem or a situation. It presents small group problems or focus on a particular issue. Case study preferred when researcher has little control on events (Mark et al., 2009).

5. POPULATION AND SAMPLING

Population can be defined as all people or items that one wishes to understand while sampling is the process of selecting segment of the population for investigation (Creswell, 2003). It is a process of selecting a sample of units from a data set in order to measure the characteristics, beliefs and attitudes of the people (J.F. Hair, 2003). Sampling survey involves structured questionnaire to evaluate people beliefs and attitudes. Collected data via structured questionnaire can be enumeration of a selected population or subgroup. Authors like N. K. Malhotra and Birks (2007) have explained that a smaller group of population has ability to make an inference about a larger group of population. This type of selection is also beneficial to reduce the work burden and cost that would have been involved in studying the whole target population. Similar to this D. R. Cooper, Schindler, and Sun (2003) have posited, there are several reasons for sampling including: better speed of data collection, results accuracy and cost efficiency. Selection of sampling method depends on the nature of the research study. It may include theoretical and practical issues. There are broadly two types of sampling methods, probability sampling and non-probability sampling (J.F. Hair, 2003). The following describes the main sampling techniques and sampling method usually used in business studies.

5.1. Probability Sampling

Probability sampling is a sampling approach in which each unit has an equal chance of probability to be selected (Creswell, 2003). Probability sampling is further divided into four categories including: simple random sampling, systematic random sampling, stratified random sampling, cluster sampling and Multi-stage Sampling.

5.1.1. Simple Random Sampling

In line with the definition of randomization, it is a sampling process in which each unit of the population has an equal probability of inclusion in the sample (Creswell, 2003). It can be calculated with sampling fraction that is n/N where n stands for sample size and N for the population size. In this method researcher develop a numeric list of all sample size and by using computer program generate random numbers.

5.1.2. Systematic Random Sampling

Probability sampling technique where initial sampling point is selected at random and then the cases are selected at regular intervals (Creswell, 2003). For instance in this method researcher systematically choose the first number that is 5 and then the other cases will select at regular interval- 25, 35,45,55 so forth.

5.1.3. Stratified Random Sampling

It is a process of sampling in which each subgroup called strata is given equal chance to be selected randomly. It gives equal proportionate representation to each stratum (Creswell, 2003).

5.1.4. Cluster Sampling
Sampling technique where researcher derive sample out of aggregations of population that are geographically dispersed and possibly unable to access at the same time (Creswell, 2003). It could be 10 banks in cluster from all around the world.

5.1.5. Multi-stage Sampling
Multi-stage sampling or Multi stage cluster sampling involves a sequence of stages (Joseph F Hair, 2007). First stage is to select the random sample of the entire region in cluster. The second stage is to select a specific region and at final stage to select relevant objects for sample size.

5.2. Non-Probability Sampling
Non-probability sampling is the sampling approach in which the chance or probability of each unit to be selected is not known or confirmed (Joseph F Hair, 2007).

5.2.1. Convenience Sampling
Convenience sampling defines a process of data collection from population that is close at hand and easily accessible to researcher. Convenience sampling allows researcher to complete interviews or get responses in a cost effective way however they may criticized from selection bias because of the difference of the target population (J.F. Hair, 2003).

5.2.2. Snowball Sampling
In snowball sampling technique the researcher makes initial contract with a small group of people who are relevant to the research topic and then uses them as referrals to contact with others (Creswell, 2003).

5.2.3. Quota Sampling
It defines the strata of the population and to set a quota for sample element from each stratum. The findings from this type of sampling technique cannot be generalized because the elements is not selected by using a probability sampling method (J.F. Hair, 2003).

5.2.4. Judgment Sampling
Defines a process where researcher use own judgment to select a group of people who knows about the problem. Judgmental sampling is also called purposive sampling because it involves a particular purpose. This type of sampling technique is convenience and cost effective (J.F. Hair, 2003).

5.3. Sampling Frame
Sampling frame defines a frame where a sample of target population can be drawn (Joseph F Hair, 2007). Similar to this accession authors like (Creswell & Clark, 2007) have stated that, a sample frame can be defined as a list of all units in the population from which research sample will be selected.

5.4 Determine Sample Size
There is an extensive discussion existed in academic literature on sample size. Selection of a correct sample size is still a big challenge for researchers (Joseph F Hair, 2007). Sample size needs to be carefully considered as statistical techniques are strongly affected by it (Joseph F Hair, 2007). Similar to this accession authors like Collis and Hussey (2013) have posited, sample size which is based on analysis method for instance structural equation modeling that further analyze confirmatory factor analysis, casual modeling with latent variables, structural path analysis and multiple regression analysis must be treated carefully.

In light with these arguments, sample size for this study was selected by following most important rule of thumb quoted in academic literature. Authors like Krejcie and Morgan (1970) have stated that if the given population was 1000000 then the required sample size would have to be 384. Further, If this rule is applied in abc study which deals a population of 1800000 units then, the sample size would have to be 384.

$$s = X^2 NP(1-P) \div d^2(N-1) + X^2 P(1-P).$$

s = denote required sample size.
X2 = denote the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).
N = denote population size.
P = denote population proportion (assumed to be .50 since this would provide the maximum sample size).
d = denote the degree of accuracy expressed as a proportion (.05).

$$S = \frac{3.841\ (1800000\ \times\ 0.50)\ (1-\ 0.50)}{0.50(1800000-1)\ +\ 3.841\ \times\ 0.50\ (1-\ 0.50)}$$

$$S = \frac{1728450}{4500} = 384$$

Authors like Cochran (1977) proposed a sampling formula. Stated that of the population is larger an ideal sample size would have to be 267. Following is the detail description of mathematical formula proposed by (Cochran, 1977).

$$n_0 = \frac{z^2\ \times p(1-p)}{e^2}$$

Where
n_0 = is the sample size
Z= is the two tailed area under the normal curve where α = 0.05 and the z value is 1.96
e = is the acceptable sampling error
p= is the population of a proportion with a desired attribute (assumed to be 0.5 which maximizes the sample size to be determined)
Given these values and an acceptable sampling error of 6.5%, the sample size is determined as: This gives the acceptable sample size to be approximately 267.

In case of analysis method research where structural equation modeling applied following recommendation should be in account. According to Schikorski and Stevens (1997) 15 cases per construct are ample when multiple regression analysis is required. If this formula applies in this study, 10 constructs multiplied by 15, equals to 150 sample size. Whereas Bollen (1989) stated that ration of five sample per variable. Jöreskog and Sörbom (1996)Stated that sample size must be 10 observation per parameter to perform CFA. Another study by Tabachnick and Fidell (2007) suggested that sample size should be 300 valid responses for factor analysis study. According to Joseph F Hair (2007) and Rahi (2018a) stated, research that required factor analysis procedure in order to determine the dimensionality for the employed items, the sample size that should be obtained is five times greater (minimum) or ten times greater (maximum) than the items that want to be analyzed.

Similar to this Joseph F Hair (2010) posited that a minimum sample size of 200 is required for structural equation modeling. In light of this simple random sampling approach was used and data collected via online survey. Finally, Comrey and Lee (1992) stated that sample size of 50 is very poor, while 100 is poor, 200 is reasonable, 300 is good, 500 is very good and 1000 is brilliant for structural equation modeling.

6. CONCLUSION

This study accomplishes a systematic review on research paradigms, questionnaire development and sampling issues. A set of beliefs of different researchers on paradigms was weighed up in detail. Meanwhile, the research methods were also explored with different supporting arguments. For quantitative study, levels of theory are the most important factors so in this regards researcher has enlightened inductive and deductive approaches of a theory. Sampling is the critical issue in every study that has been conducted with primary data so to overcome on this, following study proposed two formulas to determine sample size. Furthermore, opinions of different authors have been quoted regarding selection of sample size.

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THE ASSESMENT OF IMPACT OF COMPETITIVENESS TO ECONOMIC DEVELOPMENT

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ABSTRACT

Competition plays key driving force for economic development in the efficient market economy. To achieve competitive advantage at the international level, each country needs to improve competitiveness on different economic indicators at the national level. The Global Competitiveness Report 2018 of World Economic Forum calculated the competitiveness index of countries under 98 sub-indexes. The goal of the research is econometric assessment of the impact of competitiveness to economic development in the oil rich countries, such as Azerbaijan. For the purposes of this research, the global rating of Azerbaijan was determined through calculating the volume of GDP, as well as, oil and non-oil GDP. The research was conducted by applying systematic and statistical analysis and running Excell and Eviews8 calculations. As a result, the impact of competitiveness index to the GDP (oil and non-oil GDP) at the oil rich countries, such as Azerbaijan was calculated and following outcomes were achieved:

- *The semi-elasticity coefficient is above 1 on the volume of non-oil GDP on the competitiveness index. That means, if the competitiveness of Azerbaijan increases on the global rating then the next year non-oil GDP increases more than 1%. The improvement of the competitiveness indicators in the current year in Azerbaijan increases non-oil sector the following year. It takes time to attract investments to a country, so this outcome is expected.*
- *The semi-elasticity coefficient of the GDP volume on the competitiveness index is smaller than the semi-elasticity coefficient of the non-oil GDP at the oil rich countries.*

The practical importance of the research: this study can motivate other scholars to conduct reseach on the area. The innovativeness and uniqueness of the research: the impact of the competitiveness indicators on the economic growth has been assesed in Azerbaijan.

Keywords: *Competition, Competitiveness Index, Economic Growth, Econometric Assessment, Oil Rich Countries*

1. INTRODUCTION

Under the condition of increasing of globalization and liberalization, raising the competitiveness of the countries' economy is the most important problem. In high globalized and competitive world markets, states has great role in increasing the competitiveness of products. It is no coincidence that, the protection of competition - implementation of anti-monopoly policies is one of the main economic functions of the government (Brue, McConnell, and Flynn. 1996, pp. 88-94). Education-science-technology and innovation-oriented competitive strategy enhance the global competition force of countries and enable them to achieve sustainable development. The goal of the research is econometric assesment of the impact of competitiveness on GDP, including oil and non-oil GDP which are the main indicators of economic growth for oil-rich countries, including Azerbaijan. It has been found that countries with science-technology-innovation oriented competitive strategies have sustainable competitiveness and long-term development. Competition is one of the driving forces of economic development. It is the main principle of markets' activity and is involved in innovation, productivity and economic growth, at the same time reducing of poverty. However, markets do not always work well and economic growth is not a lasting one in unfavorable markets. Relationships between economic development indicators and competition have been investigated by a number of researchers. (Gellhorn, Ernest, and William E. Kovacic,1994. Sutton, J.,1991). Economic development, macroeconomic stability and the role of factors influencing its indices (inflation, unemployment, etc.) including competition were conducted in a number of studies (Almas Lal K., Hajiyev Nazim, 2014. Muradov A and Hajiyev N. (2014). p. 5-20., Hajiyev N., pp..97-117, Imanov G., Hasanli Y., Murtuzaeva M. pp. 223-229, Sadik-Zada Elkhan, Loewenstein Wilhelm, Hasanli Y p.21. Hasanli Y., Ismayilova S. 2017. pp. 11-15). However, the impact of the Global Competitiveness Index on economic growth has not been estimated by using econometric models.

2. DATA SET OF RESEARCH AND ITS PROCESSING

World Economic Forum annually publishes a report on Global Competitiveness Index (GCI). The Global Competitiveness Index has been calculated using 12 Pillar and 98 indicators from World Economic Forum's report for 2018 and the countries' rating has been determined (Klaus Schwab, World Economic Forum, The Global Competitiveness Report, 2018 http://www3. weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E 2%80%93201 8.pdf.). It should be noted that, the indicators used in calculating this index are constantly improving. The place of Azerbaijan on that index was 69 among 140 countries in 2018. It should be noted that, Azerbaijan was ranked 35th among 137 countries in 2017. The reason for the decline of Azerbaijan was changes that took place in the methodology of calculation of the GCI as mentioned above. Because of the fact that in the 2018 report, some indicators were excluded from the GCI indicator system. The dynamics of Azerbaijan's Global Competitiveness Index score as well as the volume of GDP (oil and non-oil) are given on the table 1.

Table following on the next page

Table 1: Azerbaijan's Global Competitiveness Index score, its place in Global Competitiveness Index ranking and the dynamics of the volume of GDP (oil and non-oil) (Statistical Year Book of Azerbaijan, 2018, p.37-43; (Klaus Schwab, World Economic Forum, The Global Competitiveness Report, 2018, p.83-85)

Years	*GDP, million manat*	*Non-oil sector in GDP, million manat*	*Oil sector in GDP, million manat*	*Global Competitiveness Index in Azerbaijan rank*	*Global Competitiveness Index in Azerbaijan score*
abbreviation	*GDP*	*Non oil_GDP*	*Oil_GDP*	*GCIAR*	*GCIAS*
2003	*7,146.5*	*4,447.6*	*2,698.9*		
2004	*8,530.2*	*5,242.5*	*3,287.7*		
2005	*12,522.5*	*6,055.1*	*6,467.4*		
2006	*18,746.2*	*7,630.0*	*11,116.2*	*64*	*4.06*
2007	*28,360.5*	*10,576.1*	*17,784.4*	*62*	*4.02*
2008	*40,137.2*	*15,197.3*	*24,939.9*	*69*	*4.10*
2009	*35,601.5*	*16,726.0*	*18,875.5*	*51*	*4.30*
2010	*42,465.0*	*21,363.8*	*21,101.2*	*57*	*4.29*
2011	*52,082.0*	*25,431.5*	*26,650.5*	*55*	*4.3*
2012	*54,743.7*	*29,262.0*	*25,481.7*	*46*	*4.4*
2013	*58,182.0*	*33,213.6*	*24,968.4*	*39*	*4.5*
2014	*59,014.1*	*36,189.2*	*22,824.9*	*38*	*4.5*
2015	*54,380.1*	*37,920.5*	*16,459.6*	*40*	*4.5*
2016	*60,425.2*	*39,975.8*	*20,449.4*	*37*	*4.6*
2017	*70,135.1*	*44,061.9*	*26,073.2*	*35*	*4.7*
2018				*69*	*3.8*

As can be seen from the table, the place of Azerbaijan in the GCI ranking in 2017 was the highest - the 35th.

3. ECONOMETRIC MODELING

3.1. Econometric evaluation of the impact of Global Competitiveness Index score of Azerbaijan on its place in the ranking among the countries

The following econometric model was obtained from evaluating the regression equation in the Eveiws application package (Eviews, http://www.eviews.com/EViews10/ev10main.html) to identify the relationship between Azerbaijan's place in Global Competitiveness Index ranking and Global Competitiveness Index score of Azerbaijan.

$$GCIAR = 254.955591646 - 47.2549918297 * GCIAS \quad (1)$$

Here, GCIAR – shows Azerbaijan's place in Global Competitiveness Index ranking and GCIAS- Global Competitiveness Index score of Azerbaijan. The main statistical characteristics of the model (1) are given on the table 2.

Table 2: The main statistical characteristics of the model (1)

Dependent Variable: GCIAR				
Method: Least Squares				
Sample: 2006 2018				
Included observations: 13				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*254.9556*	*19.74042*	*12.91541*	*0.0000*
GCIAS	*-47.25499*	*4.564718*	*-10.35222*	*0.0000*
R-squared	*0.906913*	*Mean dependent var*		*50.92308*
Adjusted R-squared	*0.898450*	*S.D. dependent var*		*12.58611*
S.E. of regression	*4.010803*	*Akaike info criterion*		*5.756498*
Sum squared resid	*176.9519*	*Schwarz criterion*		*5.843413*
Log likelihood	*-35.41724*	*Hannan-Quinn criter.*		*5.738633*
F-statistic	*107.1686*	*Durbin-Watson stat*		*1.592587*
Prob(F-statistic)	*0.000001*			

Statistical indicators given on the table 2 and relevant tests show that the model (1) is adequate (Marno Verbeek, p.29-87). The model (1) shows that the growth of the Global Competitiveness Index of Azerbaijan by 0.1 units can contribute to the advancement of its place in the ranking among countries by about 5 steps.

3.2. Econometric evaluation of the impact of Azerbaijan's place among the world countries on competitiveness index on the country's GDP, including the oil and non-oil GDP

To assess the impact of changes in the place of Azerbaijan among world countries on the competitiveness index on country's GDP (including oil and non-oil GDP), the following econometric model was obtained on the basis of data from Table 1:

$$LOG(GDP) = 18.5331453239 - 0.0167762907672 * GCIAR \quad (2)$$

Here, GDP – shows the volume of GDP of Azerbaijan. GCIAR – shows the place of Azerbaijan in Global Competitiveness Index ranking

The main statistical characteristics of the model (2) and the adequacy tests are given on the table 3.

Table following on the next page

Table 3: The main statistical characteristics of the model (2) and the tests

Dependent Variable: LOG(GDP)				
Method: Least Squares				
Date: 11/23/18 Time: 01:43				
Sample (adjusted): 2008 2017				
Included observations: 10 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.53315	0.180485	102.6853	0.0000
GCIAR	-0.016776	0.003771	-4.449152	0.0021
R-squared	0.712178	Mean dependent var		17.74969
Adjusted R-squared	0.706200	S.D. dependent var		0.219984
S.E. of regression	0.125178	Akaike info criterion		-1.141298
Sum squared resid	0.125357	Schwarz criterion		-1.080781
Log likelihood	7.706491	Hannan-Quinn criter.		-1.207685
F-statistic	19.79496	Durbin-Watson stat		1.989715
Prob(F-statistic)	0.002142			
Heteroskedasticity Test: Breusch-Pagan-Godfrey				
F-statistic	0.238989	Prob. F(1,8)		0.6381
Obs*R-squared	0.290071	Prob. Chi-Square(1)		0.5902
Scaled explained SS	0.350088	Prob. Chi-Square(1)		0.5541

As can be seen from table 3, the change in the explanatory variable GCIAR can explain the change in the explained variable LOG(GDP) by 71% (because of R-squared=0.712178). Estimates of the t-Statistic (4.449152) and Prob (F-statistic) tests show that the value of the determination coefficient is qualitative and significant. The fact that the adjusted coefficient of determination (Adjusted R-squared=0.706200) is close to the coefficient of determination and values of t-Statistic (4.449152), Prob(F-statistic) given in table 3 (t-Statistic=4.449152, Prob.=0.0021; F-statistic=19.79496, Prob(F-statistic)= 0.002142) show that the value of the coefficient of determination is qualitative and significant (Damodar N. Gujarati. 2003. pp.212, 217,2 58, 267). The actual, fitted derived from the model (2) and residual dynamics of GDP of Azerbaijan are given on Figure 1.

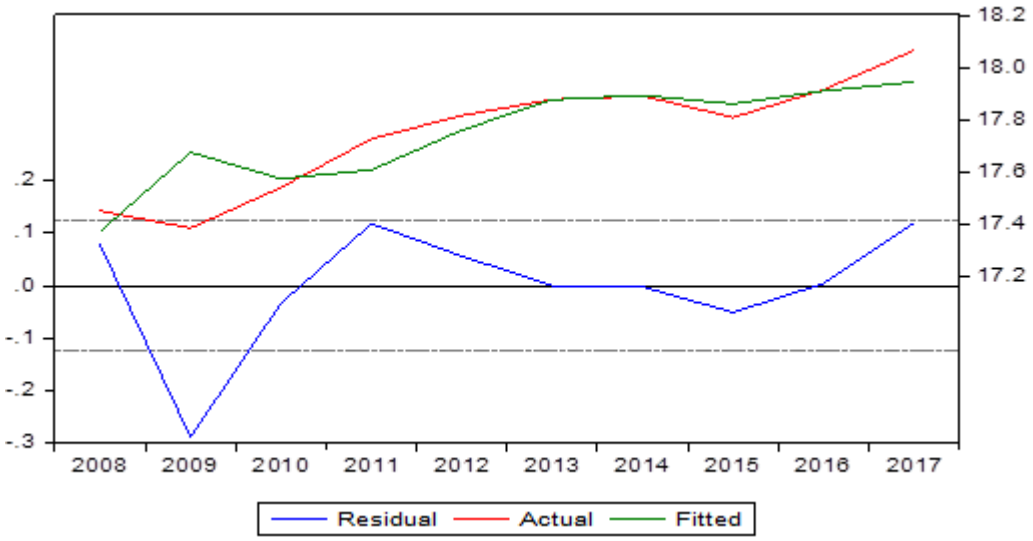


Figure 1: The actual, fitted derived from the model (2) and residual dynamics of GDP of Azerbaijan

As we can see from the Figure 1 actual and fitted GDP values are very close (with the exception of 2009). The difference of Actual and Fitted Values of GDP derived from model (2) of Azerbaijan in 2009 can be explained by world the financial crisis.

Logarithmic linear model (2) shows that, the semi-elastic coefficient of GDP in Azerbaijan in relation to GCIAR equals to 0.0167762907672. In other words, the growth of the Global Competitiveness Index of Azerbaijan by 1 step increases GDP by 1.7 %. To assess the impact of changes in the position of Azerbaijan among world countries on the competitiveness index on non-oil GDP, the following econometric model was obtained on the basis of data from Table 1:

$$LOG(Non\text{-}oil_GDP) = 11.616918448 - 0.0270612179539 * GCIAR \quad (3)$$

Here, Non-oil_GDP – shows the volume of the non-oil GDP of Azerbaijan.
The main statistical characteristics of the model (3) and the adequacy tests are given on the table 4.

Table 4: The main statistical characteristics of the model (3) and tests

Dependent Variable: LOG(Non-oil_GDP)				
Method: Least Squares				
Date: 11/23/18 Time: 01:14				
Sample (adjusted): 2009 2017				
Included observations: 9 after adjustments				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*11.61692*	*0.207370*	*56.02032*	*0.0000*
GCIAR	*-0.027061*	*0.004225*	*-6.405757*	*0.0004*
R-squared	*0.854269*	*Mean dependent var*		*10.31798*
Adjusted R-squared	*0.833450*	*S.D. dependent var*		*0.319056*
S.E. of regression	*0.130208*	*Akaike info criterion*		*-1.046233*
Sum squared resid	*0.118679*	*Schwarz criterion*		*-1.002405*
Log likelihood	*6.708047*	*Hannan-Quinn criter.*		*-1.140813*
F-statistic	*41.03373*	*Durbin-Watson stat*		*1.819891*
Prob(F-statistic)	*0.000365*			
Heteroskedasticity Test: Breusch-Pagan-Godfrey				
F-statistic	*0.141131*	*Prob. F(1,7)*		*0.7183*
*Obs*R-squared*	*0.177868*	*Prob. Chi-Square(1)*		*0.6732*
Scaled explained SS	*0.145295*	*Prob. Chi-Square(1)*		*0.7031*

As can be seen from table 4, the change in the explanatory variable GCIAR can explain the change in the explained variable LOG (GDP) in the studied years by 85.4% (R-squared=0.854269). Estimates of the t-Statistic (4.449152) and Prob (F-statistic) tests show that the value of the determination coefficient is qualitative and significant. The actual, fitted derived from the model (3) and residual dynamics of GDP of Azerbaijan are given on Figure 2.

Figure following on the next page

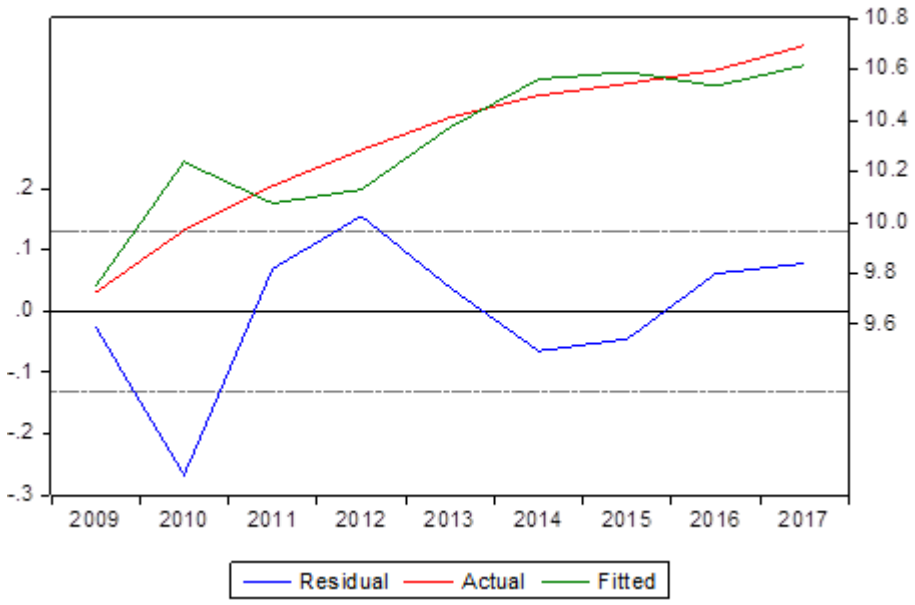


Figure 2: The actual, fitted derived from the model (3) and residual dynamics of GDP of Azerbaijan

As we can see from the Figure 2 actual and fitted GDP values are very close (with the exception of 2009-2010). The difference of Actual and Fitted Values of GDP derived from model (3) of Azerbaijan in 2009-2010 years can be explained by the fact that the financial crisis of 2008 beginning with the falling of oil prices negatively affected the non-oil sector in Azerbaijan in 2009-2010 years. Logarithmic linear model (3) shows that, the semi-elastic coefficient of non-oil GDP in Azerbaijan in relation to GCIAR equals to 0.0270612179539. In other words, the growth of the Global Competitiveness Index of Azerbaijan by 1 step increases Non-oil_GDP by 2.7 %.

4. CONSLUSION

The results of implemented econometric models shows that the growth of the Global Competitiveness Index of Azerbaijan by 0.1 units can contribute to the advancement of its position by about 5 steps. Growth of the Global Competitiveness Index of Azerbaijan by 1 step increases GDP by 1.7% and Non-oil_GDP by 2.7 %. That is, the effect of the GCIAR change by 1 step on Non-oil_GDP is more than n GDP. We should note, that effect of the change in position of GCIAR on oil GDP turned out to be insignificant during econometric estimation. More precisely, the model did not work out adequate. We can explain such result by the fact that the production and export of oil is made on the basis of long-term contracts (for exaple, The Contract of the Century) is not closely related to GCIAR. This can also be seen on the example of other oil rich countries. Since, despite the fact that the positions of Nigeria (Klaus, Schwab, 2018, pp.435-437), Saudi Arabia (Klaus, Schwab, 2018, pp.*491-493)*, Russia (Klaus, Schwab, 2018, pp. *483-485)*, Iran (Moghsoudi N., Hasanli Y. 2011. pp.399-409) and others on the Global Competitiveness Index are not high, the GDP of the oil sector of these countries in recent years continued to grow.

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EXAMINING THE ROLE OF CREDIT VOLUME ON ECONOMIC GROWTH: THE CASE OF AZERBAIJAN

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ABSTRACT

Economic growth in the economy,can be measured by an increase in the amount of production and in national income for goods and services over time. Economic development can be defined as a process of structural change in economic, social, cultural and political areas as well as increase in the production and income in a country. However, it is clearthat, the approaches which increase the quality of life of goods and services only enhance the quality of life. For this reason, examining the economic growth from environmental, social and economic point of view is vital in order to ensure the sustainability of development but this also requires the development of the concept of social and cultural aspects. In this study, the relationship between the domestic credit volume and the gross domestic product in the public and deposit banks were analyzed by using the quarterly data covering the periods of 2006-2017 for Azerbaijan. The reason for selection of 2006-2017 period is to release process of the New Azerbaijani Manat in the Republic of Azerbaijan in 2006. As a result of the analysis, it was concluded that each of them was first-order stationary series and there was no long-run relationship between them. Eventually, the result of Granger causality test which is applied for credit volume and economic growth, has a bidirectional causality relationship between two series.

Keywords: *Structural Break, Financial Development, Economic Growth, Causality*

1. INTRODUCTION

Economists have different views on the importance of the financial system for economic growth. The first view related to given topic is the supply predecessor which argues that financial development has a positive effect on economic growth. Joseph Schumpeter alleges that the well-functioning banking system encourages technological innovation by financing entrepreneurs who can successfully implement innovative product and production processes, and provides economic growth (Levine, 1997: cited in: Tuna and Bektash, 2013: 140). The existence and direction of the relationship between financial development and economic growth has been gained importance by economists. Financial development is expressed as the expansion of financial services and the growth of financial institutions (Ahmed and Ansari, 1998). Financial development enables the transfer of savings to investment by providing the transfer of funds to the productive units in need of the surplus in the financial system and economic growth. In addition, economic growth provides financial development by increasing demand for financial services (Robinson, 1952). In the literature, the studies on this subject are based on Joseph Schumpeter and there are different opinions about the direction of the mentioned relationship. These views were led by Schumpeter, Robinson and Lucas. While Joseph Schumpeter (1912) stated that the direction of the relationship was from financial development to economic growth, Joan Robinson (1952) suggested that it was from economic

growth to financial development (Levine, 1997). Lucas (1988) stated that there is no causal relationship between financial development and economic growth. According to another opinion there is a two-way causality relationship between the two variables (Tuna and Bektaş, 2013. p.140). In this article, the relationship between credit volume and economic growth in the Republic of Azerbaijan will be analyzed by applying tests that take into account the impact on the data sets that examine structural breaks. In the scope of the study, studies on similar topics will be discussed. In the research part, the research method, the data sets which have been used and the findings will be included. In the conclusion part, the findings of the analysis will be interpreted.

2. LITERATURE REVIEW

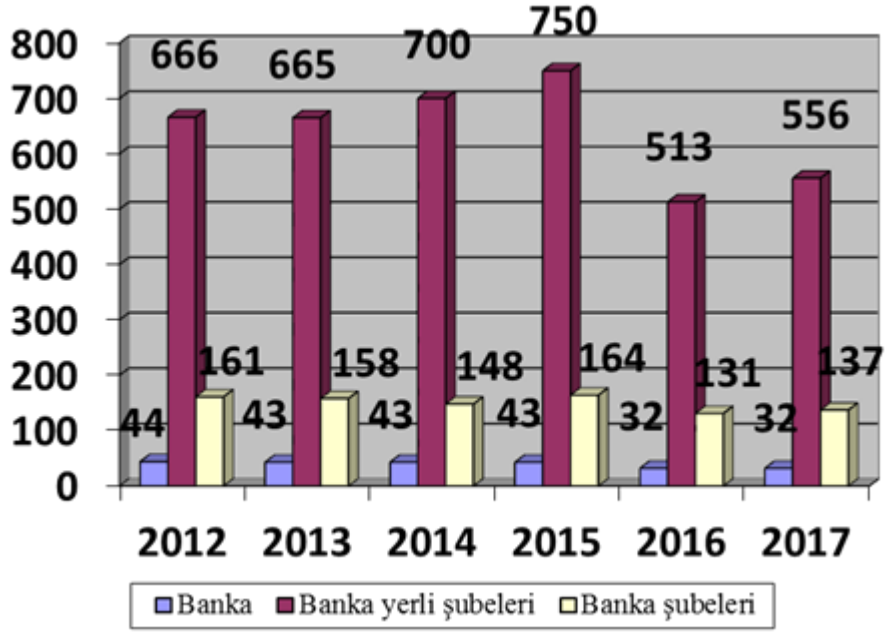
Tuna and Bektas (2013) study, for the period 1998-2012 with Turkey by using quarterly data bank deposits of domestic credit volume was analyzed the relationship between gross domestic product. It was determined that there was no causal relationship between the two series after Granger causality test. In the analysis by Demetriades and Hussein, different outcomes came into stage for 16 countries. The causal relationship between financial development and economic growth was found for three countries - Honduras, Spain, and Sri Lanka. King and Levine (1993) used different bank development measures for many countries. It has been determined that the development of the banking sector can promote economic growth in long term. When Jayratne and Strahan (1996) loosened interstate branch restrictions in individual states in the US, the lending quality of the bank increased significantly, leading to higher growth. Acemoğlu and Zilibotti (1997) have evolved a theory of financial development that develops endogenously in the growth process. Levine (2002) emphasizes the critical importance of the banking system in economic growth and the fact that banks know the conditions in which they can actively promote innovation and future growth and finance productive investments. There are different opinions and analyzes about causality relation. For me there are a great deal of variations in different opinions.. An alternative explanation for the causal relationship between financial intermediation and growth is attempted by researchers. Fundamentally, financial means can be regarded as a causal factor for economic growth. According to a study by Bayoumi and Melander (2008), a 2.5% decrease in total loans leads to a 1.5% decrease in GDP. This is usually the case when the level of development in the economy is responsible for promoting the growth of the financial system. In 2003, Favara survey showed the percentage of the GNP and the economic growth rate after checking the effect of domestic loans and other financial inflation on banks. On the other hand school, the openness to GNP, black market premium and the variables of legal origin also affect the strong relationship between them. The sample consisted of 85 countries for the period of 1960-1998. Beck and Levine (2004) built a panel that was averaged at five-year intervals. This study shows that both financial markets and banks have a significant positive effect, and even if control variables are added, they play an important role in economic growth.

3. STRUCTURE OF AZERBAIJAN BANKING SYSTEM

Having gained its independence in 1991, Azerbaijan has targeted the transition from a central planned economy to a free market economy and has started work in this field. The new legal arrangements have been accelerated as the transition from the communist system to the economic transition process is not possible. Regulations on banking and central banking system, which constituted as one of the most important steps towards transition to free market economy, were put into effect without delay. Thus, the central bank in the first section and the commercial banks in the second section were composed of two-part banking system. The structure of the newly formed Azerbaijani banking system consists of the Central Bank of the Republic of Azerbaijan (ACMB), the Interbank Foreign Exchange Market, State and Private

Banks (Mukhtarov, a.g.e., p.10). As a result of the studies carried out in the field of development of the banking system between 2013-2015, the banks had been continue attracting foreign capital. By 2016, there were 43 foreign banks with a total of 43 banks. In 2015, the opening of new regional centers and branches of banks continued. The number of district centers reached 750 and the number of branches reached 164. As a result of the restructuring in 2016, the license of 11 banks was canceled and the number of banks decreased from 43 to 32, from regional centers 164 to 131 and branches from 750 to 513; centers rose from 131 to 137 and their branches increased from 513 to 556 (See Chart 1).

Figure 1: Structural Network of Banks, by number



Source: ACMB, Annual Report 2013, p.26., ACMB, Annual Report. Annual Report 2018/09.

4. LOANS ACCOUNTED BY AZERBAIJAN BANKS

The sectoral breakdown of loans granted in Azerbaijan is given in Table 1. The total loans given were 15422,9 in 2013, 18542,6 in 2014, 21730,4 in 2015, 16444,6 in 2016 and 13682 manat in 2017/6.

Table following on the next page

Table 1: Sectoral Breakdown of Loans (Real Sector)

	01.01.2013		01.01.2014		01.01.2015		01.01.2016		01.06.2017	
	Milyon AZN	**%**	**Milyon AZN**	**%**	**Milyon AZN**	**%**	**Milyon AZN**	**%**	**Milyon AZN**	**%**
Trade and Service	2219,9	14,4	2680,7	14,5	3158,0	14,5	2467,0	15,0	2177,4	15,7
Electrical appliances	6214,7	40,3	7731,8	44,0	8383,6	38,6	5858,7	35,6	5092,7	36,7
Agriculture and Processing industry	733,3	4,8	847,3	4,6	508,1	2,3	441,3	2,7	433,9	3,1
Construction and Real Estate	2362,6	15,3	2555,1	13,6	3063,2	14,1	1908,6	11,6	891,9	6,4
Industry and Production	1516,4	9,6	2027,8	10,9	1948,3	9,0	1265,6	7,7	1043,5	7,5
Transportation and Communication	506,0	3,3	736,0	4,0	1465,6	6,7	1271,1	7,7	1022,8	7,4
Social Institutions	6,1	0,0	3,9	0,0	14,6	0,1	25,6	0,2	22,6	0,2
Public Institutions (Management)	1,2	0,0	0,9	0,0	0,5	0,0	0,9	0,0	3,6	0,0
Commercial letters	492,5	3,2	464,2	2,6	934,6	4,3	837,3	5,1	594,0	4,3
Guarantees	39,8	0,3	61,5	0,3	134,8	0,6	82,3	0,5	28,8	0,2
Factoring Transaction	3,1	0,0	2,2	0,0	5,5	0,0	7,0	0,0	9,5	0,1
Overdraft	12,8	0,1	27,8	0,2	29,1	0,1	12,3	0,1	7,8	0,1
Finance	247,2		274,6		383,3		493,8		230,8	
Other	233,7	1,6	231,2	1,2	259,4	1,2	198,1	1,1	193,9	1,4
TOTAL	**15422, 9**	**100**	**18542,6**	**100**	**21730,4**	**100**	**16444,6**	**100**	**13682**	**100**

5. EMPIRICAL DATA AND ANALYSIS

In this paper the relationship between credit volume and economic growth has been taken into account and three months time series data has been used which covers the period between 2006 and 2017 . The credit volume granted by banks (LNKREDI) and economic growth (LNGSYIH) data of the Central Bank of the Republic of Azerbaijan - Electronic Data Distribution System (https://esasodi.cbar.az:9804/obiee/) and the Statistics Committee of the Republic of Azerbaijan n. Logarithm of all variables was used in the analysis. In the literature, Engle and Granger (1987) and Johansen (1988,1991) cointegration tests are frequently used to determine the long-term relationship between the two series. In order to investigate the cointegration relationship between the two series, the studied series must be in the same stationary . In this study, it was found that both series ln are stable with change values as seen in Table 2 and Table 3.

Table 2: LNGSYIH Augmented Dickey-Fuller test statistic

Null Hypothesis: LNGSYIH has a unit root Exogenous: Constant Lag Length: 5 (Automatic - based on SIC, maxlag=9)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-4.777408	0.0004
Test critical values:	1% level		-3.596616	
	5% level		-2.933158	
	10% level		-2.604867	

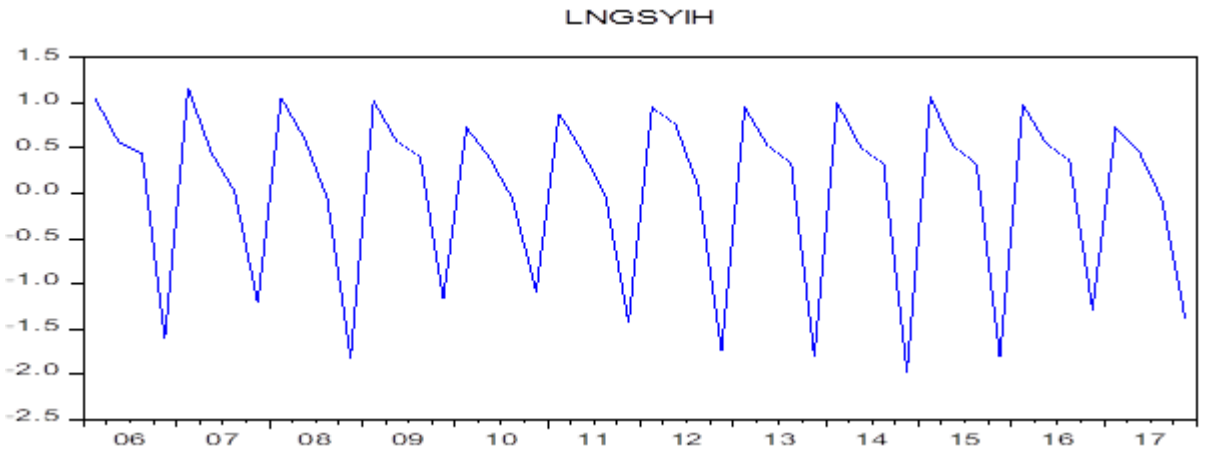


Figure 2: LNGSYIH

Table 3: LNKRED Augmented Dickey-Fuller test statistic

Null Hypothesis: LNKREDI has a unit root Exogenous: Constant Lag Length: 0 (Automatic - based on SIC, maxlag=9)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-5.300214	0.0001
Test critical values:	1% level		-3.577723	
	5% level		-2.925169	
	10% level		-2.600658	

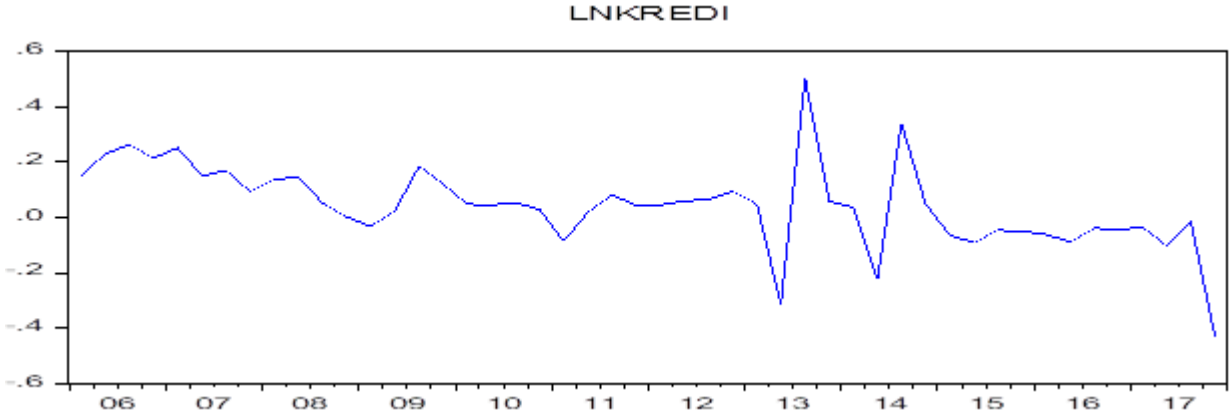


Figure 3: LNKRED

Table 4: VAR Granger Causality/Block Exogeneity Wald Tests (2006Q1 2017Q4)

The direction of the relationship	Df	Chi-sq	Prob.
LNGSYİH□LNKREDI	2	12.59967	0.0018
LNGSYİH□LNKREDI	2	13.43234	0.0012

Consequently,the results of the tests conducted in the study, determined that there is a long-term relationship between LNGSYİH which represents economic growth and LNKREDI series representing financial development, and also there is a causal relationship between these series. In other words, in Table 4, the null hypothesis of anlam Granger cause of Change in Credit Volume hip is the Granger cause of "Change in Loan Volume ir and GS Change in Loan Volume' is accepted as 5%. That is, credit volume and GDP affect each other. Therefore, Loan Volume → GDP and GDP → Loan Volume Change was found as a bidirectional relationship.

6. CONCLUSION

According to this study, it has been concluded that the data examined are first-order stable and have a long-term relationship between them. However, as a result of the Granger causality test, the causality relationship between these two series was not found as bidirectional. Within the framework of the strong strategic way map of the national economic sector in the Republic of Azerbaijan, the steps taken towards the development of non-oil sector and the programs implemented in practice are indisputable. In this study, it can be concluded that commercial loans given by banks are used for the right purpose and as a result, they also have a positive effect on GDP.

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PUBLIC-PRIVATE PARTNERSHIP: OPPORTUNITIES AND PROSPECTS OF BANKING FINANCING

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ABSTRACT

The devaluation shock experienced by the economy of Azerbaijan in 2015 actually put an end to the socio-economic model that has been cultivated since the start of the implementation of large oil projects. The new model, the parameters of which are announced, should lead the country and society to a qualitatively new level of development. New instruments of social and economic policy are required, in particular, for investment incentives for the development of non-oil sectors of the economy. Such a tool could potentially be a public-private partnership (PPP). PPP should become not just a set of various projects, but become a powerful factor in the development of public relations and institutions. The issue of financial support of such a partnership is one of the most difficult. The level of investment potential and the effectiveness of PPP as a national movement depends not only on how this issue is resolved. This also determines the possibilities for developing the potential of domestic banks, increasing their contribution to the industrialization of the country, expanding the banking business instruments, increasing banking influence on capital markets, approving the practice of targeted pooling of banks' efforts and resources, for example, in the form of banking consortia. The development of bank financing of PPP can help solve the problem of increasing the level of capitalization of local banks, the lack of reliable points of application for bank capital, the expansion of the range of banking products, and the permanent improvement of banking technologies.

Keywords: *public-private partnership, financial support for PPP, bank financing of PPP*

1. INTRODUCTION

The modern state has a wide range of instruments of influence on the economy. One of them is a public-private partnership. In his monograph Sazonov V.E. notes that in a number of countries around the world "the history of public-private partnership projects ... has several centuries" (Sazonov, 2012) and cites as an argument confirming this thesis by French author Xavier Besançon, author of the book "2000 years of public-private partnership for the construction of systems and public facilities "(Bezançon, 2004). But we will not go into history. We are interested in modernity. With the integration of the national economy of the post-Soviet republics, structural changes are gaining new momentum, reaching a qualitatively new level. In particular, due to closer interaction of the state and the private sector. Already in a number of countries, by combining the resources and capabilities of public and private, serious social and economic problems can be effectively solved. World leaders in the field of PPP are the highly developed countries of the West - the United States, United Kingdom, France and Germany. In the UK alone over the past 20 years, more than 600 major projects have been implemented. The practice of PPP is also successfully developing in Japan, Italy, Ireland and Israel.

The latest World Bank study, covering 135 countries, revealed a direct correlation between the level of a country's income and the quality of regulation and provision of the main stages of launching and managing public-private partnership projects. In this study, it is noted that for a group of high-income countries, the average value for such criteria as pre-project preparation, selection of a private partner, management of PPP agreements and a private initiative mechanism was 8 points higher than for a group of countries with incomes above average, 14 points - compared with lower-income countries, and 19 points compared with low-income countries (Procuring Infrastructure PPPs, 2018).

2. WHO AND HOW DETERMINES PPP?

As supporters of a pragmatic approach to the question of the relationship between law and economics, we do not give an unequivocal priority to one or another. But we believe that in order to form the most unambiguous understanding of the essence of this or that phenomenon, it is advisable to refer to its legal and economic characteristics. From a legal point of view, PPP is a form of medium- and long-term relationships of the state in the face of a certain public law education and business in the face of specific private (legal and physical) persons to solve socially important tasks on mutually beneficial terms. The PPP is based either on a concession agreement or on a public-private partnership agreement concluded between the participants. Usually, PPP assumes that it is not the state that is connected to business projects, but, on the contrary, the state invites business to take part in the implementation of socially significant projects. A broad public interpretation implies constructive interaction between government and business in all areas of social development: not only in economics, but also in politics, ideology, culture, science, art, sports, ecology, etc. (Delmon, 2010) As supporters of just such an interpretation, let us take the opportunity to emphasize that there is not and cannot be unequivocally primary, and unequivocally secondary areas of the development of society. It is doubtful that success in the economy will be fundamental without adequate progress in non-economic areas, and vice versa. A number of foreign studies define PPPs as relations between the state and an individual based on the implementation of the project, executed in accordance with the law (Bult-Spiering, Dewulf, 2006). The position of international institutions is formed as follows.

- The IMF defines public-private partnerships as a combination of private and public capital resources to improve public property management and the provision of public goods, which offers a more complex and cost-effective approach to risk management, in contrast to the traditionally used public procurement (PPPartnerships, IMF, 2016).
- The World Bank defines a public-private partnership as a long-term contract between a private and public partner on the provision of public goods, in which the private party assumes significant risks and is rewarded depending on the success of the contract (PPPartnerships, World bank, 2016).
- In the Guidelines on Public-Private Partnership for Infrastructure Development ”of the UN Economic Commission for Europe, PPP is defined as “a form of cooperation between government authorities and business, whose main goal is to provide financing, construction, reconstruction, management and maintenance of infrastructure facilities” (Guidelines UN/ECE, 2000).

3. POSSIBLE EFFECTS OF PPP AND PRECONDITIONS FOR THEIR IMPLEMENTATION

What are the positive effects of the implementation of ppp, based on the experience of the world? This, in particular, the strengthening of innovative characteristics and improvement of the institutional support of economic development, due to:

- positive transformation of property relations;

- implementation of more advanced and effective management methods;
- expanding the quantitative and qualitative characteristics of private capital participation in the country's economy;
- tangible for consumers to improve the quality of goods and services;
- strengthening the competitiveness of not only the economy as a whole, but also the domestic business;
- introduction of new efficient models and financing mechanisms.

It is important to emphasize the important fact that the very possibility of implementing the idea of PPP in a particular society depends crucially on the presence of a minimally adequate institutional environment in the society. Effective implementation of PPP as an institutional and organizational alliance of state power and private business is possible if there are appropriate prerequisites. The prerequisites for successful implementation of a PPP program are defined as follows (Yescombe, 2015):

- political will.
- relevant regulatory framework.
- facilities with significant initial investment and long-term maintenance requirements throughout the life cycle.
- similar in size projects for comparing costs with the costs of organizing public procurement.
- permanent guaranteed appearance of projects that can interest private companies to create technological, investment and financial opportunities.
- institutional capacity to manage both the entire PPP program and individual projects.

4. SIGNS AND FORMS OF PPP

Among the basic features of public-private partnerships in the narrow (economic) interpretation, the following are distinguished (Green Paper, 2004; Amunz, 2005):

- PPP participants are the state and private business;
- interaction of participants is fixed on the official, legal basis;
- The interaction of the participants is long-term. This is explained by the fact that PPP is usually embodied in projects in the infrastructure sector. And here the payback period of projects is much higher than similar projects in the commercial sphere;
- The interaction of participants is of equal nature. At the same time, the participants are guided by their own interests when concluding an agreement. But the common denominator is that participants have a joint task;
- PPP has a clearly defined public, social orientation. The need to solve them in favor of the society should relate to the responsibilities of the public partner - otherwise his participation loses meaning;
- it follows from the above that in the process of implementing projects on the basis of PPP, the resources and contributions of the participants are consolidated;
- one of the key attributes of a PPP is the possibility of risk sharing. But not only the risks, but also the costs, as well as the results achieved, are distributed among the participants in predetermined proportions.

The main forms of PPP in the economy can be attributed (Amunz, 2005; PPP EU, 2006; Closing the Infrastructure Gap, 2006; Varnavsky, 2010):

- any mutually beneficial forms of interaction between the state and business
- management and lease contracts
- projects involving new construction

- financial lease (leasing)
- public-private enterprises
- partial privatization of assets
- production sharing agreements
- concession.

There is no ideal scheme that best takes into account the conditions of all countries, industries, projects, the content of each specific problem being solved (Delmon, 2009).

5. PPP IN AZERBAIJAN

In Azerbaijan, there are a number of systemic problems that prevent us from realizing the potential of PPP. Immediately it should be noted that there is no profile legislation on public-private partnership in Azerbaijan. For example, in the Russian Federation there is a Federal Law "On Public-Private Partnership, Municipal-Private Partnership in the Russian Federation and Amendments to Certain Legislative Acts of the Russian Federation". In Kazakhstan, in 2015, the Law "On Public-Private Partnership" was adopted. The same in the Belarus. In the Kyrgyz Republic, a similar Law was adopted in 2012. However, this does not mean a complete lack of legislative conditions for the practice of PPP in Azerbaijan. Moreover, such a practice exists in the country. For example, in 1994, in the field of oil production, Azerbaijan signed the first contract of the PSA type (Production Sharing Agreement). Laws of the Republic of Azerbaijan "On investment activity", "On investment funds" and "On protection of foreign investments", "On budget system", "On special economic zones", "On subsoil", "On state assistance to small business" and a number of other regulatory acts, including the Civil Code, form the legal basis of a public-private partnership in Azerbaijan. Strategic road maps of the national economy and the main sectors of the economy of Azerbaijan have become a new stage in building up the legal basis of PPP. Nevertheless, these and other regulatory acts cannot fully compensate for the lack of a comprehensive legal framework in Azerbaijan that defines the principles and essence of the functioning of PPP. Institutional manifestation of the actual PPP in Azerbaijan can be considered the National Fund for Entrepreneurship Support, the Azerbaijan Investment Company, the Council of Entrepreneurs under the President of the Republic of Azerbaijan. All this allows the use of specific government forms of private investment support. It is known that after two devaluations of manat in 2015, the dynamics of Azerbaijan's GDP in 2016 and 2017 was negative. For the first 9 months of 2018, this figure was only 0.8%; in the non-oil sector, according to the results of the same period, the increase was 1%, that is, within the statistical error. In other words, there is practically no GDP growth in Azerbaijan. This is a particularly depressing fact against the background of more or less positive indicators of the CIS countries (stat.gov.az; cisstat.com). The central issue of economic development is diversification, all-round stimulation of the non-oil sectors of Azerbaijan, a fundamental reduction in the country's economic dynamics from commodity dependence. How to achieve this under the conditions when in the first half of 2018 the volume of investments in the non-oil sector increased by 21.5%, including investments in the non-oil industry increased by 72.8%, and for total investments in fixed capital from all financial sources figure was 14.1% less than the same period in 2017? This suggests a logical conclusion: the formation of the total volume of capital investments in Azerbaijan still falls on the oil and gas industry. Indeed, capital investments in the oil sector of Azerbaijan in 2017 amounted to 54.3% of all investments. And this fact outweighs the effect of growth in the share of the non-oil sector in the country's GDP (62.8% in 2017). Moreover, the share of non-oil exports in January-May 2018 is slightly more than 10%. In addition, in 2017, against the background of a 5% decline in value added production in the oil sector, the same indicator in the non-oil industry grew by 3.8%, and in the entire non-oil sector - by 2.7% (stat.gov.az).

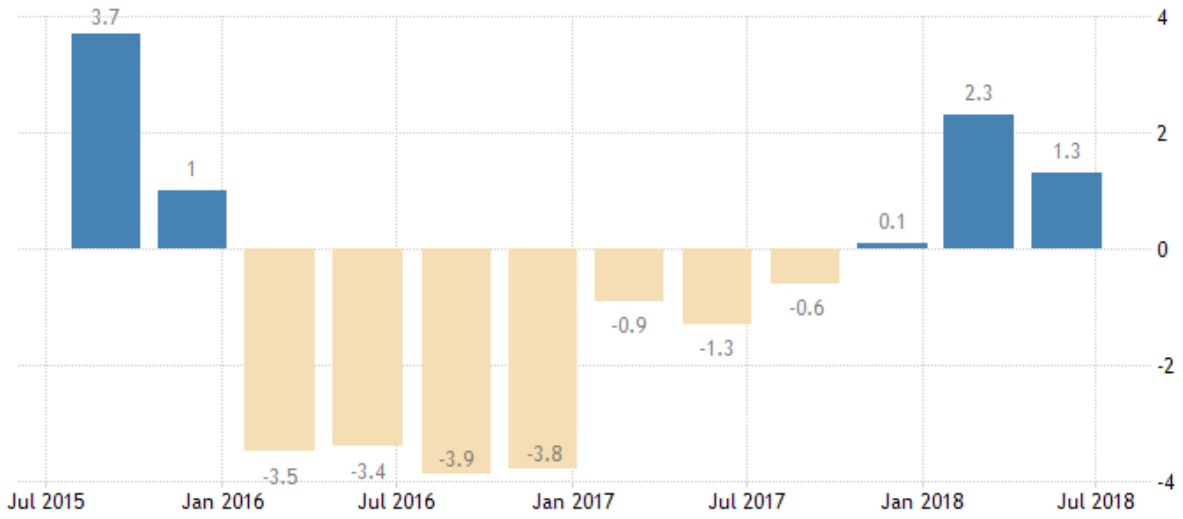


Figure 1: Dynamics of Azerbaijan's GDP (tradingeconomics.com)

According to the results of the first half of 2018, 52.8% of total investments in fixed assets were funds of enterprises and organizations, 24.4% - budget funds, 14.7% - bank loans, 6.2% - personal funds of the population, 1.3 % - funds of extra-budgetary funds, 0.6% - other funds (stat.gov.az). What can explain the current structure of investment sources? In our opinion, the reduction of investment opportunities of the state. With the exception of the oil and gas sector and infrastructure projects, the development of the rest of the economy remains the function of the private sector. There is much to invest in the framework, but there is no certainty that the costs will be effective. Which sectors of the non-oil sector in Azerbaijan are attractive for investors? We believe that there is currently no clear answer to this question. During the years of high oil prices in the world, the state in Azerbaijan managed without its private sector for its growing financial opportunities. Now the situation has changed fundamentally. In 2011, the Government of Azerbaijan announced the start of preparations for the exit from major projects, a reduction in state budget investment commitments, a transition to a system of financing major investment projects focused on international standards for such financing, including through public-private partnership projects (Ministry of Finance Azerbaijan, 2011). In 2015, the Government of Azerbaijan states that it is necessary to attract additional capital, motivating it with the limited financial capabilities of any state. It is also emphasized that the model of public-private partnership is one of the ways to solve this problem. And first of all, it is necessary to solve the problem of the lack of relevant legislation and understand the rules for implementing PPP (Azerbaijan invested, 2015). Since then, more than 3.5 years have passed and the relevant legislation on public-private partnership in Azerbaijan is still absent. The lack of an appropriate regulatory framework in the field of PPP indicates that in Azerbaijan there is no such prerequisite for the successful implementation of the PPP program as the interest of the state itself. Another question: what kind of PPP is needed in order not only to achieve high economic growth, but also to bring the country and society to a qualitatively new level of development? We believe that within the framework of the new model of development of PPP in Azerbaijan should be not just a set of various projects, but also become a powerful factor for development. For this, PPP in Azerbaijan should become a national movement, and therefore should not be limited to the public services sector and, in particular, in the social infrastructure. PPP can also cover production infrastructure. Following the example of Japan's post-war experience of building relations between the state and business, which received the world-famous name Japan Incorporated, Azerbaijan needs to develop its Azerbaijan Incorporated model, which implies the unity of the state and business in upholding national interests before the outside world by

achieving and strengthening permanent constructive dialogue, focused on finding and finding mutually acceptable solutions that take into account the positions of both parties.
At the moment, we have to state that the state in Azerbaijan is making new attempts to stimulate the exit of local business from the shadows. The concentrated expression of the new efforts of the state to improve the business climate in the country and strengthen discipline among taxpayers was the introduction of 240 changes to the Tax Code of Azerbaijan. If we add to this the fact that Azerbaijan ranked 1st among 28 countries in the latest ranking of the largest shadow economies in the world (Emerging from the shadows, 2017), this means that the existing relations in the "business-state" line in Azerbaijan are lining up ineffectively.

6. BANKING PARTICIPATION IN PPP

The economy of Azerbaijan, first of all, its non-oil sector needs large-scale investments. We are deeply convinced that advanced technologies and modern equipment should become the basis for the development of non-oil industries, the creation of new industries and enterprises. Considering the current state of the national economy, the goals and objectives of its development for the coming years, in order to achieve sustainable economic growth, we consider it expedient to use the resources of Azerbaijan's commercial banks, which means that they must be included in the PPP participants. The participation of local banks in covering the gap between the available economic entities and financial needs in specific projects in the PPP regime will strengthen the position of banks among financial intermediation institutions in Azerbaijan, and increase the efficiency of transforming financial resources into real investments. The qualitative characteristic of the desired institutional alliance of the state and the banks of Azerbaijan in the form of PPP can and should be to ensure access of small and medium-sized businesses to banking resources and services. For banks, this can provide an opportunity to direct their resources to finance investment projects and programs to diversify and modernize the economy of Azerbaijan. We believe that the stimulating contribution of the state can be:

- provision of state guarantees for loans
- loan interest subsidies
- co-financing projects

The need for off-budget financial support for the development of small and medium-sized businesses may stimulate interest in small savings and savings outside the banking sector and contribute to their fuller involvement in the economic cycle. Additional effects may be the strengthening of the resource and capital base of local banks, the acceleration of the processes of concentration and centralization of capital in the banking sector of the Azerbaijan economy.

7. CONSLUSION

We believe that the new model of development of Azerbaijan will be untenable without the full implementation of the practice of PPP. Azerbaijan has significant potential for the implementation of public-private partnership projects, but the limiting factor here is the lack of a developed body of specialized legislation and a single public policy in the sphere of PPP. The introduction of PPP practice in Azerbaijan as an integral part of the implementation of national projects and programs of social and economic development of society can have a positive effect only if the interests of the state are combined on the one hand, and the rest of society represented by local business, science, education, on the other. The institutional base of such an alliance can make banks. The current state of the banking system of Azerbaijan continues to be difficult. Forecasts of global financial institutions in the banking sector of Azerbaijan remain largely negative. Attracting banks to participate in public partnerships will create the preconditions for the qualitative improvement of their participation in the development of society.

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IMPORTANCE OF ACADEMIC STAFF ATTITUDE TOWARDS THE RANKINGS OF HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

More and more higher education institutions have started to use data from rankings for analysis, strategic planning and policy making to attract more financing for international research and enrolment of foreign students. The importance for universities in deciding which indicators are of greatest interest in accordance with their strategic priorities, and in focusing on these alone has been underlined and important is attitude of academic staff and their willingness and motivation for activities supporting higher level of their university rankings. Many methodologies of rankings testify, that various indicators can be brought together – for example, on reputation, research, teaching, resources, the international dimension of university; co-operation with employers. On great importance is management to reflect the performance and success of university including each member of academic staff. Many investigations have performed in this field and research results usually are used for management decision making on different levels: on university level, on higher education and science level and for country level. Research aim is to evaluate the significance of the attitude of the members of academic staff towards rankings and different indicators and their motivation to improve them to support management decision making of higher education institutions. Research methods used: analysis of scientific publications on university rankings aspects related to academic staff importance and attitude; expert survey on university organisation and used ranking indicators aspects supporting university rankings. Expert survey is designed with use of evaluation scale 1 – 10, where 1 – fully disagree with the statement and 10 – fully agree with the statement. For expert data analysis indicators of descriptive statistics (indicators of central tendency or location and indicators of variability) are used. Expert survey results are used in development of survey of academic staff. Main results and findings of the study: members of academic staff have big influence on university rankings have significant role in the development of university. It is important to motivate members of academic staff to work in directions important for university international rankings and foresee those motivating factors of academic staff to be included in the strategy of university – as in the scale of the world, as in the regional and national scale.

Keywords: *University rankings, performance indicators, academic staff, experts*

1. INTRODUCTION

More and more higher education institutions have started to use data from rankings for analysis, strategic planning and policy making to attract more financing for international research and enrolment of foreign students. The importance for universities in deciding which indicators are of greatest interest in accordance with their strategic priorities, and in focusing on these alone has been underlined and important is attitude of academic staff and their willingness and motivation for activities supporting higher level of their university rankings. Many methodologies of rankings testify, that various indicators can be brought together – for example, on reputation, research, teaching, resources, the international dimension of university; co-

operation with employers. On great importance is management to reflect the performance and success of university including each member of academic staff. Many investigations have performed in this field and research results usually are used for management decision making on different levels: on university level, on higher education and science level and for country level. Research aim is to evaluate the significance of the attitude of the members of academic staff towards rankings and different indicators and their motivation to improve them to support management decision making of higher education institutions. Research methods used: analysis of scientific publications on university rankings aspects related to academic staff importance and attitude; expert survey on university organisation and used ranking indicators aspects supporting university rankings. Expert survey is designed with use of evaluation scale 1 – 10, where 1 – fully disagree with the statement and 10 – fully agree with the statement. For expert data analysis indicators of descriptive statistics (indicators of central tendency or location and indicators of variability) are used. Demand of the information about the quality and efficiency of higher education institutions grows, when market of the higher education becomes more open and competitive, when number of students and state funding to the higher education decreases and in the influence of other factors. The role of measuring of the institutional quality of the higher education grows due to interaction of many factors. Affordable way is the strengthening of the research aspect of the higher education institutions: both international and state financed research, and the participation in the research with local government and industry. Up to now there are not conducted enough such research. There are many academic investigations with practically available suggestions for the facilitating of the research and for the deeper study of the specific aspect. Formation of the ratings of higher education institutions is the way how to compare organizations for their parameters of activity. The role of ratings is to offer the information about the quality of services in the form of the measurable distinctions for the sponsors, clients and policy makers. Ratings are influential. They foster the flow of doctoral students, elite scientists and money of sponsors to the top institutions in ratings. Ratings determine the reputation of the universities. They attract the interest of the society and change the behaviour of the universities and policy makers.

Objective – investigate importance of motivation system for academic staff on active involvement in international research.

Methodology:
Analysis of scientific publications;
Comparison of results of leading Baltic universities in different international higher education institution rating systems in 2017 and 2018, analysing the role of performance indicators in the formation of rating position:
1. QS World University Rankings
2. The Times Higher World University Ranking
3. Academic Ranking of World Universities
(ARWU or Shanghai Ranking).

Methodologies of ratings and used indicators of the evaluation of research of universities are compared. Expert survey results are used in development of survey of academic staff. Main results and findings of the study: members of academic staff have big influence on university rankings have significant role in the development of university. It is important to motivate members of academic staff to work in directions important for university international rankings and foresee those motivating factors of academic staff to be included in the strategy of university – as in the scale of the world, as in the regional and national scale.

2. THEORETICAL FINDINGS

Academic researchers in scientific publications disscuss different approaches of comparisons of different universities – does one size fit to all (Goglio, 2016, pp. 212-226) but such research results are important to make management decisions in practical university management, as well as development of higher education management decisions. Soo, K.T. (2013). Academic researchers are conserned on aspects - does anyone use information from university rankings (Soo, 2013: 176–190), Aspects of active instruments: on the use of university rankings in developing national systems of higher education are disscussed among the higher education researchers in many countries and practical aspects are analysed on different levels and in many counties (Lim, Øerberg, 2017: 91–108). Many countries analyse universities rankings as new marketing tool, like for ranking of Canadian universities: a new marketing tool, (Page, 2000; 59-69). Australia has a big share of higher education export in GDP and the influence of organisational features in high-ranked universities: the case of Australia are on rsearchers agenda (Uslu, 2017: 471-486). Multivariate analysis – cluster analysis are applied in analysis for multi-authoring and its impact on university rankings: a case study of CERN effect on Turkish universities (Çakır, Acartürk, Alkan, Akbulut, 2017). Demographic aspects are important for academic researchers are counting on demographic equity to transform institutional cultures at historically white South African universities (Booi, Vincent, Liccardo, 2017, pp. 498-510. Researchers disscuss on methodologies of global university rankings: metrics, performance, governance (Peters, 2017). In studues of gigher education management among the important aspects are analysed the effect of methodological variations on university rankings and associated decision-making and policy (Hosier. Kumar, Hoolash, 2019, pp. 201-214). Political decisions are extreemely important for changing higher education practice in many countries also in Malaysia where researchers are paid attention to the conundrum of incentives (Wan, et al, 2017: 2134-2152). An empirical study on credibility of China's university rankings are on great interest among researchers and policy makers in higher education (Ying, Jingao, 2009: pp. 70-80). Many international scientific conferences disscuss those aspects involving researchers from many countries world-wide.

3. EMPIRICAL FINDINGS

There are several criteria of indicators in higher education rankings. Indicators must agree to such criteria:

- connected with aims and tasks of institution
- direct (promptly describe what is being measured)
- objective (evident clear what is being measured)
- qualitative (as far as possible)
- comparable (results are similarly interpreted, when different study programmes or types of institutions are compared; institutionally, nationally, internationally etc.)
- practical (the count of indicators must be limited; data describing these indicators must be available).

3.1. QS World University Rankings (I)

(http://www.topuniversities.com/qs-world-university-rankings; 01.11.2018) Since the QS World University Rankings were first developed in 2004, they have expanded to rank more than 900 universities in 2017, with over 3,800 assessed. The top 400 universities are given individual ranking positions, and the rest are ranked in groups – starting from 401-410, up to 701+. Based on 6 performance indicators, the ranking assesses university performance across four areas: research, teaching, employability and internationalization:

- academic reputation (40%)
- employer reputation (10%)

- student-to-faculty ratio (20%)
- citations per faculty (20%)
- international faculty ratio (5%)
- international student ratio (5%).

Table 1: Performance of Baltic universities in QS ranking (November 1, 2018)

University	Rank	TOTAL	Academic reputation	Employer reputation	Student-to-faculty ratio	Citations per faculty	International faculty ratio	International student ratio
University of Tartu(EE)	**321** (2018)	32,8	20,4	21,6	82,7	18,9	22,4	20
Vilnius University (LT)	**488** (2018) **481-490**	24,1	16,9	31,8 (2018) 34.9 (2017)	60,2 (2018) 58.9 (2017)	6,1	11,7	6
Tallin University of Technology (EE)	**601-650** (2018) **601-650** (2018)	-	-	**21,3** (2018) **32.9** (2017)	**32,9** (2018) **33.2** (2017)	-	**35** (2018) **22.1** (2017)	**43,4** (2018) **26.5** (2017)
University of Latvia(LV)	**801-1000** (2018) **651-700** (2017)	-	-	-	**26,6** (2018) **36.4** (2017)	-	-	-
Riga Technical University LV)	**751-800** (2018)			**23.9** (2018)	**26,8** (2018)		**15,9** (2018)	**28,7** (2018)
Kaunas University of Technology (LT)	**751-800** (2018) **701 - 750** (2017)	-	-	21,2 (2018)	36,7 (2018) 37 (2017)	-	-	-
Vilnius Gediminas Technical university (LT)	**581-590** (2018) **701+** (2017)	-	-	36 (2018)	**42,4 (**2018) **29.7** (2017)	-		**29,9** (2018) **23.2** (2017)
Vytautas Magnus university (LT)	**801-1000** (2018) **701+** (2017)	-	-	-	-	-	**28,1** (2018) **21** (2017)	-

Table following on the next page

Table 2: QS World University Rankings (II)
Performance of Baltic universities in QS ranking (November 1, 2018)

University	Rank	TOTAL	Academic reputation	Employer reputation	Student-to-faculty ratio	Citations per faculty	International faculty ratio	International student ratio
University of Tartu(EE)	**321** (2018)	32,8	20,4	21,6	82,7	18,9	22,4	20
Vilnius University (LT)	**488** (2018) **481-490**	24,1	16,9	31,8 (2018) 34.9 (2017)	60,2 (2018) 58.9 (2017)	6,1	11,7	6
Tallin University of Technology (EE)	**601-650** (2018) **601-650** (2018)	-	-	**21,3** (2018) **32.9** (2017)	**32,9** (2018) **33.2** (2017)	-	**35** (2018) **22.1** (2017)	**43,4** (2018) **26.5** (2017)
University of Latvia(LV)	**801-1000** (2018) **651-700** (2017)	-	-	-	**26,6** (2018) **36.4** (2017)	-	-	-
Riga Technical University LV)	**751-800** (2018)			**23.9** (2018)	**26,8** (2018)		**15,9** (2018)	**28,7** (2018)
Kaunas University of Technology (LT)	**751-800** (2018) **701 - 750** (2017)	-	-	21,2 (2018)	36,7 (2018) 37 (2017)	-	-	-
Vilnius Gediminas Technical university (LT)	**581-590** (2018) **701+** (2017)	-	-	36 (2018)	**42,4 (**2018) **29.7** (2017)	-		**29,9** (2018) **23.2** (2017)
Vytautas Magnus university (LT)	**801-1000** (2018) **701+** (2017)	-	-	-	-	-	**28,1** (2018) **21** (2017)	-

3.2. The Times Higher World University Ranking (I)

(https://www.timeshighereducation.com/world-university-rankings; 01.11.2018) The Times Higher Education (THES) World University Rankings 2018 list the 1250 top universities in the world, making it the biggest international league table to date. It is global university performance table to judge world class universities across all of their core missions – teaching, research, knowledge transfer and international outlook. THES ranking uses 13 carefully calibrated performance indicators. This year's ranking, which includes institutions from 79 countries, represents 5 per cent of the world's higher education institutions.

3.3. The Times Higher World University Ranking (II)

Qualitative indicators / quantitative indicators 50:50%.

Table following on the next page

Table 3: The Times Higher World University Ranking -Performance of Baltic universities in THES ranking

Field	Indicator	Ratio (%)
1. Teaching (the learning environment)		**30**
	Reputation survey	15
	Staff-to-student ratio	4.5
	Doctorate-to-bachelor's ratio	2.25
	Doctorates-awarded- to-academic-staff ratio	6
	Institutional income	2.25
2. Research (volume, income and reputation)		**30**
	Reputation survey	18
	Research income	6
	Research productivity	6
3. Citations (research influence)		**30**
4. International outlook (staff, students and research		**7.5**
	International-to-domestic-student ratio	2.5
	International-to-domestic-staff ratio	2.5
	International collaboration	2.5
5. Industry income (knowledge transfer)		**2.5**
	Total	**100**

Table 4: Academic Ranking of World Universities ARWU or Shanghai Ranking; (http://www.shanghairanking.com; 01.11.2018)

European rank	World rank	University	Country
=147	301-350	University of Tartu	Estonia
=291	601-800	Tallin University of Technology	Estonia
=291	601-800	Vilnius University	Lithuania
=354	801+	Kaunas University of Technology	Lithuania
=354	801+	Riga Technical University	Latvia
=354	801+	University of Latvia	Latvia

The Academic Ranking of World Universities (ARWU) was first published in 2003 by the Center for World-Class Universities of Shanghai Jiao Tong University, China, and updated on an annual basis. ARWU uses 6 objective indicators to rank world universities, including the number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited researchers selected by Thomson Reuters, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index, and per capita performance of a university. More than 1200 universities are actually ranked by ARWU every year and the best 500 are published. Academic Ranking of World Universities -ARWU or Shanghai Ranking; http://www.shanghairanking.com; 01.11.2018). Indicators and weights for ARWU

Table following on the next page

Table 5: Academic Ranking of World Universities -ARWU or Shanghai Ranking; (http://www.shanghairanking.com; 01.11.2018)

Criteria	Indicator	Code	Weight (%)
Quality of Education	Alumni of an institution winning Nobel Prizes and Fields Medals	Alumni	10
Quality of Faculty	Staff of an institution winning Nobel Prizes and Fields Medals	Award	20
	Highly cited researchers in 21 broad subject categories	HiCi	20
Research Output	Papers published in Nature and Science	N&S	20
	Papers indexed in Science Citation Index-expanded and Social Science Citation Index	SCI	20
Per Capita Performance	Per capita academic performance of an institution	Size	10
Total			100

Table 6: Performance of Baltic universities in ARWU ranking (http://www.shanghairanking.com; 01.11.2018)

Criteria	Indicator	Code	Weight (%)
Quality of Education	Alumni of an institution winning Nobel Prizes and Fields Medals	Alumni	10
Quality of Faculty	Staff of an institution winning Nobel Prizes and Fields Medals	Award	20
	Highly cited researchers in 21 broad subject categories	HiCi	20
Research Output	Papers published in Nature and Science	N&S	20
	Papers indexed in Science Citation Index-expanded and Social Science Citation Index	SCI	20
Per Capita Performance	Per capita academic performance of an institution	Size	10
Total			100

University rankings more and more have influence on choice of policy making at universities, administrations of higher education in countries.

4. CONSLUSION

- None of world popular approaches and methodologies of the evaluation and comparing of higher education institutions are absolutely objective;
- Different methodologies are used in the international rankings, however the evaluation of the research activity has significant proportion in all of them;
- Different indicators of research activity are used, but more significant are:
  - number of publications in respectable journals / per academic staff / in citation data bases
  - index of citation
  - number of highly cited researchers
  - international research awards
  - number of doctoral degrees conferred
  - income from research
  - productivity of research

- income from industry (transfer of knowledge and technology) etc.

- Acquired findings indicate, that the results of research activity of universities have important role in the international ratings of higher education institutions and the improvement of these results facilitates the place of higher education institution in the ratings, thus fortifying, to which aspects of the strengthening of research activity must be drawn special role and attention in the missions and strategies of higher education institutions
- The research indicated that historical habits of respective university have some influence but also material/
- Moral motivators are on great importance with moral or emotional factor significant importance (such as involvement, moral recognition by university management – praised in academic staff meetings, published joint photo with rector at respective university webpage, even symbolic material premiums, support for participation in international conferences etc.).

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ECONOMETRIC ASSESSMENT OF THE DEPENDENCE OF REVENUES ON VALUE ADDED TAX ON INCOME TAX AND PROFIT TAX REVENUES IN REPUBLIC OF AZERBAIJAN AND IN RUSSIAN FEDERATION

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ABSTRACT
In this research, the dependence of VAT revenues on the factors affecting it in the Republic of Azerbaijan and the Russian Federation was studied. For this purpose, information on the volume of revenues from value-added tax, income tax and profit tax was collected and analyzed. To determine the dependence of VAT revenues on income tax and profit tax revenues, as well as on the difference between the amount of debt and overpaid taxes and the dependence of VAT revenues on the profit tax rate for Azerbaijan and to determine the dependence of VAT revenue on income tax and profit tax revenues for Russian Federation, statistical indicators for 2006–2017 were collected and analyzed, and regression equations were constructed and an econometric evaluation was carried out using the "EViews" application software and the results were analyzed.
Keywords: *value added tax, income tax, profit tax, direct and indirect taxes, econometrics*

1. INTRODUCTION

As it is known, taxes are divided into two parts according to the mechanism of formation: direct taxes and indirect taxes. Direct taxes are taxes that cover the income of taxpayers derived from the use of the main factors of production. As an example of direct taxes, profit tax, income tax, property tax, etc. can be mentioned. Direct taxes are paid by taxpayers who directly have the objects of taxation of these taxes. Indirect taxes are taxes that are included in the prices of goods and services. As an example of indirect taxes, value added tax (hereinafter referred to as VAT), excise can be mentioned. Despite the fact that indirect tax payers are persons providing goods and services, in fact, these taxes are added to the prices of the same goods and services, are collected from buyers and paid to the budget. As well as direct and indirect taxes differ in the formation mechanism, they also perform different functions. Since direct taxes play an important role in the formation of budget revenues, mainly performing a fiscal function. And the main function of indirect taxes is to control the economy. For example, VAT participates in all stages of production by way of calculation and reimbursement, and at the end is withdrawn from the final consumer and paid to the state budget. Such a mechanism makes it possible to control the economy at all stages of production. Given the differences between direct and indirect taxes, it is especially important to determine the relationship between them. The research has carried out an econometric assessment of the dependence of VAT revenues on income tax and profit tax revenues, as well as explaining the results obtained. The research was carried out taking into account the economic indicators of the Republic of Azerbaijan and the

Russian Federation, due to the fact that both of them are post-Soviet states rich in hydrocarbon resources and passed through similar stages of economic development.

2. THE RELEVANCE OF RESEARCH

As it is known, there are four main factors of production: land, capital, labor and entrepreneurial ability. Each of these factors involved in the production process has its share in the value of the goods produced. Since in the value of the produced goods, land participates in the form of rent, capital in the form of interest, labor in the form of wages, and entrepreneurial ability in the form of profit. So, the value added created in the economy can be expressed by the factors of production involved in the production process, in the following form:

$$VA=P+W+I+R+NTP \quad (1)$$

Here: VA- is value added, P-profit, W-wages, I-interest, R-rent, NTP-net taxes on production.

In terms of taxation, it should be noted that despite the fact that each of the main factors of production is subject to direct taxes (In particular, the land is subject to land tax, interest and wages are subject to income tax, and profit is subject to profit tax.), the cost of the final product is subject to value added tax, which is an indirect tax. In both countries, in Azerbaijan and in Russia from indirect taxes, VAT, and from direct taxes, income tax and profit tax have a superior position in state budget revenues. From this point of view, the study and comparative analysis of the existing relationship between these taxes is one of the important tasks.

3. ECONOMETRIC ASSESSMENT OF THE DEPENDENCE OF REVENUES FROM VAT ON INCOME TAX AND PROFIT TAX IN REPUBLIC OF AZERBAIJAN

First, let us try to determine the dependence of VAT revenues on income tax and on the volume of debts and overpaid taxes. For this, the following specification of the regression equation was considered:

$$LOG(VAT_AZ) = C(1) + C(2)*LOG(ITAX_AZ) + C(3)*(DEBT_AZ-OVER_PAYMET_AZ) \quad (2)$$

Here: VAT_AZ-: is the volume of VAT revenues, ITAX_AZ- is the volume of income tax revenues, DEBT_AZ-OVER_PAYMET_AZ – is the difference between the volume of all tax debts and overpaid taxes.

The result of the econometric evaluation of the regression equation (2) in the EViews application package was as follows:

$$LOG(VAT_AZ) = -13.0583708808 + 1.99511842046*LOG(ITAX_AZ) + 1.34645128028e-07*(DEBT_AZ-OVER_PAYMET_AZ) \quad (3)$$

Statistical characteristics of the model (3) are shown in table (1).

Table following on the next page

Table 1: The main statistical characteristics of the model (3)

Dependent Variable: LOG(VAT_AZ)				
Method: Least Squares				
Date: 01/02/19 Time: 04:35				
Sample: 2006 2017				
Included observations: 12				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-13.05837	2.100239	-6.217566	0.0002
LOG(ITAX_AZ)	1.995118	0.153650	12.98482	0.0000
DEBT_AZ-OVER_PAYMET_AZ	1.35E-07	2.79E-08	4.826293	0.0009
R-squared	0.952944	Mean dependent var		14.09623
Adjusted R-squared	0.942487	S.D. dependent var		0.524688
S.E. of regression	0.125830	Akaike info criterion		-1.095459
Sum squared resid	0.142498	Schwarz criterion		-0.974233
Log likelihood	9.572755	Hannan-Quinn criter.		-1.140342
F-statistic	91.13106	Durbin-Watson stat		2.445460
Prob(F-statistic)	0.000001			

Statistical indicators and tests show that the model (3) is adequate.

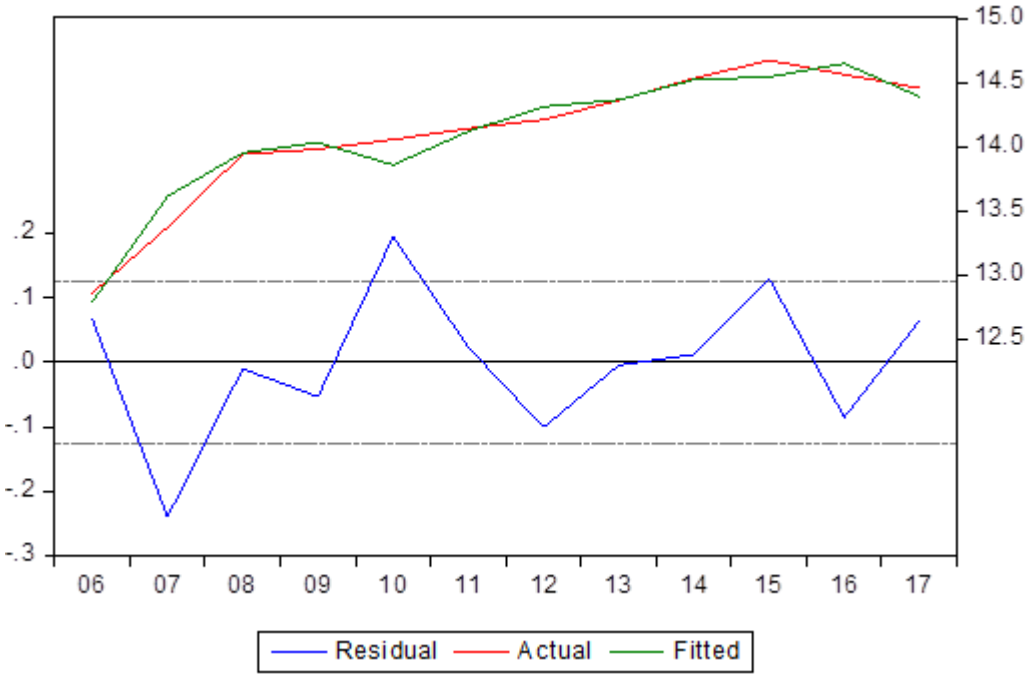


Figure 1: The actual, fitted and residual dynamics of VAT revenues in Azerbaijan according to the model (3)

From model (3), it can be seen that the coefficient of elasticity of VAT revenues relative to income tax receipts is approximately 1.99. This means that the increase in income tax revenue by 1 % contributes to an increase in the volume of revenues on VAT by 1.99 % while all other conditions are stable. Also from model (3) it turns out that the coefficient of semi-elasticity of VAT revenues relative to the difference between the volume of debts and overpaid taxes equals to 0.013 %. This result shows that the increase in the positive difference between the volume of debts and overpaid taxes by 1 manat contributes to an increase in the volume of revenues on VAT by 0.013 percent. Even if at first glance it looks paradoxical that growth in difference between the volume of debts and overpaid taxes leads to an increase in VAT revenues, this fact can be explained. Since the growth of the positive difference between the volume of debts and overpaid taxes shows the appearance of an additional tax liability and this in turn leads to an

increase in VAT revenues through control measures and tax administration. And now let us try to determine the dependence of VAT revenues on profit tax revenues. For this purpose, the following specification of the regression equation was considered:

$$LOG(VAT_AZ) = C(1) + C(2)*LOG(PROFTAX_AZ) + [AR(1)=C(3),AR(2)=C(4),UNCOND] \quad (4)$$

Here: PROFTAX_AZ – is the volume of profit tax revenues.

The result of the econometric evaluation of the regression equation (4) was as follows:

$$LOG(VAT_AZ) = 9.29446582474 + 0.313150183664*LOG(PROFTAX_AZ) + [AR(1)=1.71162179229,AR(2)=-0.846894887053,UNCOND] \quad (5)$$

Statistical characteristics of the model (5) are shown in table (2).

Table 2: The main statistical characteristics of the model (5)

Dependent Variable: LOG(VAT_AZ)				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Date: 01/03/19 Time: 02:43				
Sample: 2006 2017				
Included observations: 12				
Convergence achieved after 20 iterations				
Coefficient covariance computed using outer product of gradients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.294466	1.459548	6.368042	0.0004
LOG(PROFTAX_AZ)	0.313150	0.100275	3.122913	0.0168
AR(1)	1.711622	0.179889	9.514860	0.0000
AR(2)	-0.846895	0.164923	-5.135081	0.0013
R-squared	0.935731	Mean dependent var		14.09623
Adjusted R-squared	0.899006	S.D. dependent var		0.524688
S.E. of regression	0.166744	Akaike info criterion		-0.076684
Sum squared resid	0.194624	Schwarz criterion		0.125361
Log likelihood	5.460101	Hannan-Quinn criter.		-0.151488
F-statistic	25.47925	Durbin-Watson stat		1.499119
Prob(F-statistic)	0.000288			
Inverted AR Roots	.86-.34i	.86+.34i		

As can be seen from table (2), the statistical characteristics of model (5) and tests show that the resulting model is adequate. According to the model (5) the elasticity coefficient of VAT revenues relativlely to profit tax revenues is approximately 0.31. This means that the increase in profit tax revenue by 1 % contributes to an increase in the volume of revenues on VAT by 0.31 % while all other conditions are stable. And now we will look at the problem of optimality of VAT revenues in relation to profit tax revenues. For this purpose, the following specification of the regression equation was considered:

$$VAT_AZ = C(1) + C(2)*LOG(PROFTAX_AZ) + C(3)*LOG(PROFTAX_AZ)^2 + [AR(4)=C(4),UNCOND,ESTSMPL="2008\ 2017"] \quad (6)$$

Here: PROFTAX_AZ- is the volume of profit tax revenues.

The result of the econometric evaluation of the regression equation (6) turned out in the following form:

$$VAT_AZ = -1261755740.22 + 174886109.117*LOG(PROFTAX_AZ) - 6050519.60489*LOG(PROFTAX_AZ)^2 + [AR(4)=-0.929549695501,UNCOND,ESTSMPL="2008\ 2017"] \quad (7)$$

Statistical characteristics of the model (7) are shown in table (3).

Table 3: The main statistical characteristics of the model (7)

Dependent Variable: VAT_AZ				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Date: 01/03/19 Time: 21:18				
Sample: 2008 2017				
Included observations: 10				
Convergence achieved after 7 iterations				
Coefficient covariance computed using outer product of gradients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.26E+09	2.08E+08	-6.075818	0.0017
LOG(PROFTAX_AZ)	1.75E+08	28547364	6.126174	0.0017
LOG(PROFTAX_AZ)^2	-6050520.	981110.3	-6.167013	0.0016
AR(4)	-0.929550	0.092016	-10.10204	0.0002
SIGMASQ	1.28E+10	1.15E+10	1.106583	0.3189
R-squared	0.922958	Mean dependent var		1659200.
Adjusted R-squared	0.861324	S.D. dependent var		429253.3
S.E. of regression	159850.5	Akaike info criterion		27.90694
Sum squared resid	1.28E+11	Schwarz criterion		28.05824
Log likelihood	-134.5347	Hannan-Quinn criter.		27.74098
F-statistic	14.97489	Durbin-Watson stat		1.592024
Prob(F-statistic)	0.005449			
Inverted AR Roots	.69+.69i	.69+.69i	-.69-.69i	-.69-.69i

The statistical characteristics of the model (7) shown in table (3) and the relevant tests give us reason to say that the model turned out to be adequate. From model (7), it is clear that the coefficient of the parameter with a square power is negative. This shows that the graph of the model obtained from the econometric evaluation is a parabola with the branches pointing down. And this means that the function has a maximum point, in other words, at a certain level of profit tax revenue, VAT revenues reach their maximum. To find this point, one should find the point where the derivative of this function turns into zero. This point is a point of extremum. After carrying out the relevant calculations, it was revealed that the amount of profit tax revenue, at which revenues from VAT reach their maximum, is equal to 1908001.54 thousand manats.

As an economic explanation of the result obtained, it can be shown that with the stability of all other conditions, after the profit tax revenue reaches the level of 1908001.54 thousand manat, the VAT revenue starts to decrease. The reason for this phenomenon is the fact that taxpayers in the case when they cannot evade profit tax, they tend to evade taxes on wages. One of the interesting approaches in studying the dependence of VAT revenues on profit taxes is to determine the profit tax rate at which revenues from VAT reach their maximum. Since the regression equations given above made it possible to determine the amount of profit tax at which revenues from the VAT reach their maximum. And the presence of such a fact made it important to directly determine the optimal rate of profit tax, which contributes to the revenues of VAT to reach their maximum. For this, an econometric estimation of the following regression equation should be made:

$$LOG(VAT_AZ) = C(1)*PROF_TAX_RATE + C(2)*PROF_TAX_RATE^2 \quad (8)$$

Here: VAT_AZ- is the valume of VAT revenues, PROF_TAX_RATE-is the rate of profit tax.

The result of the econometric evaluation of the regression equation (8) was as follows:

$$LOG(VAT_AZ) = 1.75060631423*PROF_TAX_RATE - 0.0515957099025*PROF_TAX_RATE^2 \quad (9)$$

Statistical characteristics of the model (9) are shown in table (4).

Table 4: The main statistical characteristics of the model (9)

Dependent Variable: LOG(VAT_AZ)				
Method: Least Squares				
Date: 01/03/19 Time: 21:22				
Sample: 2006 2017				
Included observations: 12				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PROF_TAX_RATE	1.750606	0.102689	17.04770	0.0000
PROF_TAX_RATE^2	-0.051596	0.004943	-10.43911	0.0000
R-squared	0.610779	Mean dependent var		14.09623
Adjusted R-squared	0.571857	S.D. dependent var		0.524688
S.E. of regression	0.343317	Akaike info criterion		0.850686
Sum squared resid	1.178665	Schwarz criterion		0.931504
Log likelihood	-3.104119	Hannan-Quinn criter.		0.820765
Durbin-Watson stat	1.075457			

The statistical characteristics of the model (9) shown in table (4) and the relevant tests give us reason to say that the model turned out to be adequate. From model (9) it was found that the optimal rate of profit tax maximizing VAT revenues, with the stability of all other factors, equals to 16.96 percent. It should be noted that currently the profit tax rate is 20 percent. The obtained result of an optimal rate of profit tax from the model equal to 16.96 percent can be explained by the fact that a decrease in the profit tax rate leads to an increase in revenues for

this tax in accordance with Laffer's theory, and this in turn contributes to an increase in VAT revenues.

4. ECONOMETRIC ASSESSMENT OF THE DEPENDENCE OF REVENUES FROM VAT ON INCOME TAX AND PROFIT TAX IN RUSSIAN FEDERATION

We now turn to the question of determining the dependence of VAT receipts on the factors affecting it for the Russian Federation. For this purpose, we will evaluate the following regression equation:

$$LOG(VAT_RUS) = C(1) + C(2)*LOG(ITAX_RUS) + C(3)*LOG(PROFTAX_RUS) + C(4)*DUMMY2008 \quad (10)$$

Here: VAT_RUS – is the valume of VAT revenues in Russian Federation, ITAX_RUS – is the valume of income tax revenues, PROFTAX_RUS – is the valume of profit tax revenues. Note that, taking into account the financial crisis in 2008, a dummy variable (DUMMY2008) was included in the model to increase the adequacy.

$$LOG(VAT_RUS) = -1.17725496269 + 0.708739278105*LOG(ITAX_RUS) + 0.496429327574*LOG(PROFTAX_RUS) - 0.302219332938*DUMMY2008 \quad (11)$$

Statistical characteristics of the model (11) are shown in table (5).

Table 5: The main statistical characteristics of the model (11)

Dependent Variable: LOG(VAT_RUS)				
Method: Least Squares				
Date: 01/03/19 Time: 20:24				
Sample: 2006 2017				
Included observations: 12				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.177255	0.242634	-4.851970	0.0013
LOG(ITAX_RUS)	0.708739	0.029832	23.75800	0.0000
LOG(PROFTAX_RUS)	0.496429	0.044207	11.22957	0.0000
DUMMY2008	-0.302219	0.029736	-10.16342	0.0000
R-squared	0.996518	Mean dependent var		8.015783
Adjusted R-squared	0.995212	S.D. dependent var		0.377150
S.E. of regression	0.026098	Akaike info criterion		-4.192747
Sum squared resid	0.005449	Schwarz criterion		-4.031111
Log likelihood	29.15648	Hannan-Quinn criter.		-4.252590
F-statistic	763.1042	Durbin-Watson stat		1.719525
Prob(F-statistic)	0.000000			

The statistical characteristics of the model (11) shown in table (5) and the relevant tests give us reason to say that the model turned out to be adequate.

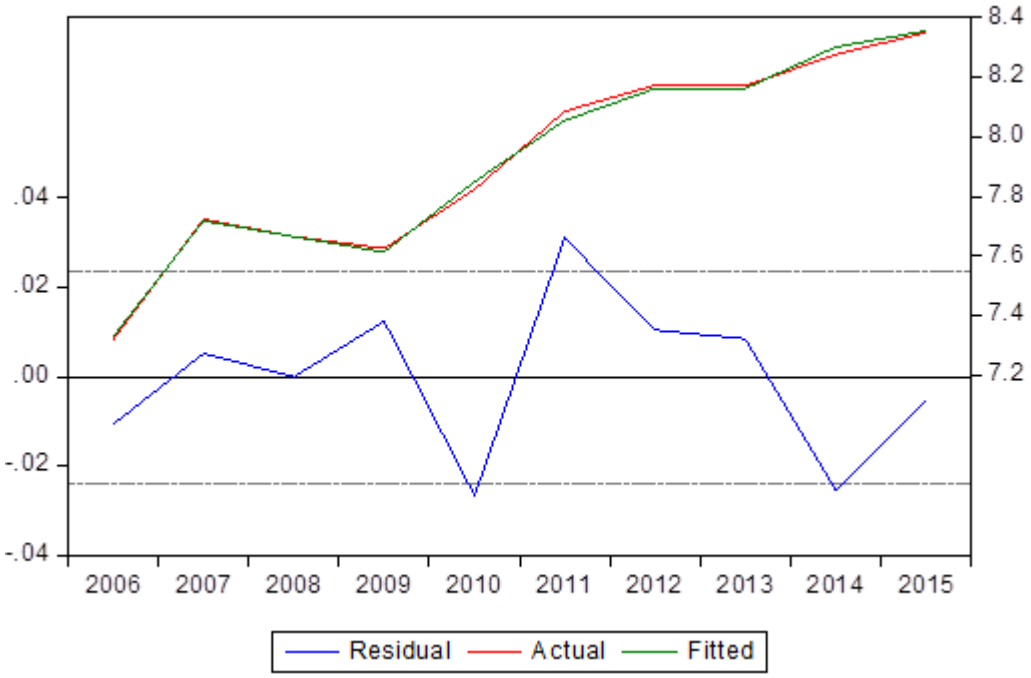


Figure 2: The actual, fitted and residual dynamics of VAT revenues in Russian Federation according to the model (11)

From model (11), it was determined that in Russian Federation the coefficient of elasticity of VAT revenues relativly to revenues from income tax and profit tax is 0.71 and 0.50, respectively. As can be seen, the growth of income tax and profit tax revenues has a positive effect on VAT revenues. Since the increase in income tax revenues by 1% leads to an increase in VAT revenues by 0.71%, and the increase in profit tax revenues by 1% leads to an increase in VAT revenues by 0.5%.

5. CONCLUSIONS

- The increase in income tax revenue by 1 % contributes to an increase in the volume of revenues on VAT by 1.99 % in the Republic of Azerbaijan.
- The increase in profit tax revenue by 1 % contributes to an increase in the volume of revenues on VAT by 0.31 % in the Republic of Azerbaijan.
- The amount of profit tax revenue, at which revenues from VAT reach their maximum, in the Republic of Azerbaijan, is equal to 1908001.54 thousand manats.
- Tthe optimal rate of profit tax maximizing VAT revenues, in the Republic of Azerbaijan, with the stability of all other factors, equals to 16.96 percent
- In Russian Federation the coefficient of elasticity of VAT revenues relativly to revenues from income tax and profit tax is 0.71 and 0.50, respectively.

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ASSESSMENT OF THE INTEGRATION RELATIONSHIPS BETWEEN SCIENCE AND EDUCATION AT THE DOCTORAL

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ABSTRACT

In this article the integration between science and education has been studied. The number of indexed scientific articles in Azerbaijan is accepted as a explained variable, which is pulled up from SCOPUS scientific bibliographic base and its dependence on the number of admitted PhD students has been assesed running the econometric model. In addition, the dependence of explained variable on the GDP value, education and science has been calculated by running the econometric models. As a result, the ratio of Doctor of Science to Doctor of Philosophy has been calculated.

Keywords: *science, education, integration, PhD, econometrics*

1. INTRODUCTION

It takes time to create and develop a university. The development stages of universities and their mission are categorized as following: a) educational universities (1.0); b) research universities (2.0); c) entrepreneur universities (3.0) (Kaprov, 2017, p.58). Educational universities were the first to be created and they were teaching the religion. In addition, Latin, Greek and other languages were taught at the universities. Bologna Univeristy was created in Italy in 1088, Paris University was created in France in 1150, Oxford University was created in England in 1167 and Istanbul University was created in Ottoman Empire in 1453. These universities are categorized under 1.0. The mission of these universities were education. The universities categorized on (2.0) add research to their core values in addition to teaching. These universities consider research key element to teaching that improves the quality of the education.

The universities categorized on (3.0) add the practical application of research results to the teaching and research elements of education. Therefore their mission statement have three key categories. To feed their mission these universities have created and developed scientific-research labs, business incubation centers and technology transfer centers. The creation of the (3.0) category universities have been established by the establishment of tech parks which first has been created at Stanford University in the United States. The reason for establishing the enterpreneur universities is to create innovation centers that supports research and education. Furthermore, the innovation centers help with the career replacement of students. As a result of establishing Stanford University tech park the Silicon Valley has been formulated as a physical space that companies produce tech products. It worth mentioning that the adoption of Bayh-Dole act in 1980 in the United States institutionalized the establishment of enterpreneur universities model in America (Karpov, 2017, p.58). After the adoption of the act. Before the adoption of the act the universities in the United States would register 250 patent, this number was 1,500 in 1982 and in 2010 there were 4,500 patent registered. The universities in the United States made $82 million revenues from the sales of licence during 1989-1990 period, while they made $1.5 billion just in 2009. The abovementioned facts demonstrate the improtance of Bayh-Dole act on the establishment of the third category universities. The trends on the educational field have positive impact to Azerbaijan too. Some universities in Azerbaijan, including Azerbaijan State University of Economics (UNEC) have been taking relevant steps to contribute to the development of education too (Muradov A.J. (2017), p.12). In order to increase the number of PhD students the universities and the Academy of Science of Azerbaijan Republic has developed the PhD programs. The Doctor of Philisophy program is about 3 years for full-time candidates, while being 4 to 5 years for part-time candidates. If it takes 5-6 years to defend the dissertation instead of 3-4 years that means, the publication of the dissertation delays for 1-2 years. We have got the results in accordance with these delays. It should be noted that it took 5 or 6 years for PhD candidates to continue their program. During this period the number PhD candidates who finished the program was less than 50%. Usually, this process continued for 6 years for fundamental sciences and technical sciences (3 years for doctoral studies and 3 years after graduating from doctorate) and 5 years in humanitarian and social sciences (respectively 3 years and 2 years) (Bednyy, 2006, p.34). If it took 5-6 years for PhD candidates to defend the dissertation. 59% of the 586 admitted PhD students on economy in 2002 finished their program by 2010 in the United States. While, 37% of them dropped out of the program and 4% were still continuing the program. The result of this study shows that the number of PhD candidates who defended their dissertation were increased by median value from 5.0 to 5.6 during 1996-2000 period (Stock, 2011, p.14). Science and education play key role on the development of the domestic economy in a given country. Therefore, there is a need to develop these fields and to increase the allocated funds for that. The share of science and education is high in developed countries. For instance, this indicator is 1.92% for OECD countries, while being 1.1% for Russia and 0.68% for Kazakhstan (Science &Engineering Indicators 2014. Tabl.4.4. p.4 etc.; Bulatov, 2017, p.266). In 2011the average share of GDP on the educational expenses was 6.1% in OECD countries, 5.1% in Japan, 7.6% in South Korea, 7.3% in Israel, 4.6% in Russia and 7.3% in Azerbaijan (OECD Education at a Glance. OECD Indicators 2014. Tabl.A1.2a, p.43 etc.; Bulatov, 2017, p.268). In addition, in 2014 the average share of higher education in GDP was 1.6% in OECD countries, 2.8% in Canada, 2.7% in the United States, 2.6% in South Korea, 1.9% in Finland, 1.3% in Germany, 1.4% in Russia. This indicator was 0.85% in Azerbaijan in 2017 (Explanation on the draft law of the Republic of Azerbaijan "On the 2017 State Budget of the Republic of Azerbaijan" (2017), p.20). The Azerbaijani economy has been developed 6.47 times during 1996-2017 period (see Table 1, column 10), which have had a positive impact over the general development of science and education.

One of the key indicators of development science and education in a specific country are the number of indexed scientific articles on the international databases. Another important factor is the average number of citations to an article. The number of international patents are the indicators of innovation. The number of admitted students to the Doctor of Philosophy and Doctor of Science programs and the expenses spent on education have an impact over the development of the science and education in Azerbaijan. There are different indicators that characterize the development of science and education: these include, the number of scientific articles on SCOPUS per 10,000 persons, the number of citations to those articles, the number of students in the higher education, the number of PhD students studying Doctor of Philosophy and Doctor of Science, etc. (https://www.scimagojr.com/countrysearch.php?country=az). Therefore, this study focuses on the number of indexed scientific articles on SCOPUS database for Azerbaijan, the number of admitted students to Doctor of Science and Doctor of Philosophy programs in Azerbaijan, the expenses spent on science and education and real GDP value and the econometric asessment of values among these variables. It should be noted that we could not find any scientific articles written on the relationship between the number of PhD students in a specific country and the indexed scientific articles on international databases. Therefore, this study is going to be the first articles in its nature in Azerbaijan.

2. THE DATA SET OF THE STUDY AND THE PROCESSING

There are some econometric models that have been run to assess the indexed scietific articles on international databases during 1996-2007. The number of students studying Doctor of Philosophy and Doctor of Science are accepted as explanatory variables, while the number of indexed scientific articles on SCOPUS are labeled as explained variables. In addition, the expenses on GDP, science and education are labeled as explanatory variables, while the number of indexed scientific articles on SCOPUS database is accepted as explained variables. We also included the number of Doctor of Science and Doctor of Philosophy candidates in order to demonstrate the potential of people who are in the science. The databases are the State Statistics Committee of Azerbaijan Republic and SCImagorjr.com scientific portal database. (see Table 1). The explanation for reductions on Table 1 is shown on the Appendices section. Table 1 shows that the number of admitted students to PhD programs have been declined dramatically, it is almost terminated. This was due to the adoption of the new bill on “Science”.

Figure following on the next page

Table 1: DATA SET. [1996=100]

(1) Year	*(2) FDq*	*(3) EDq*	*(4) SCOPUS_Doc*	*(5) ED*	*(6) FD*	*(7) UDMReal (million manat)*	*(8) ElmXercReal (million manat)*	*(9) TehsilXercReal (million manat)*	*(10) RealUDM Faizle, [1996=100]*
1996	*386*	*19*	*244*	*717*	*3490*	*2732.60*	*4.80*	*101.8*	*100.00*
1997	*303*	*19*	*233*	*726*	*3457*	*2892.22*	*6.59*	*103.3*	*105.84*
1998	*253*	*23*	*204*	*700*	*3398*	*3179.35*	*5.82*	*107.5*	*116.35*
1999	*151*	*10*	*196*	*693*	*3374*	*3413.35*	*7.14*	*143.8*	*124.91*
2000	*367*	*9*	*190*	*678*	*3343*	*3802.13*	*12.83*	*146.5*	*139.14*
2001	*292*	*17*	*191*	*676*	*3328*	*4179.15*	*7.39*	*146.4*	*152.94*
2002	*303*	*18*	*298*	*643*	*3211*	*4623.06*	*8.69*	*145.8*	*169.18*
2003	*398*	*14*	*348*	*633*	*3209*	*5112.27*	*11.87*	*168.0*	*187.08*
2004	*470*	*14*	*442*	*656*	*3283*	*5629.24*	*13.20*	*194.1*	*206.00*
2005	*503*	*18*	*436*	*668*	*3328*	*7117.87*	*16.61*	*211.7*	*260.48*
2006	*550*	*17*	*380*	*705*	*3306*	*9573.63*	*16.34*	*244.7*	*350.35*
2007	*452*	*19*	*507*	*707*	*3242*	*11969.94*	*18.53*	*305.1*	*438.04*
2008	*455*	*22*	*592*	*746*	*3346*	*13267.85*	*21.68*	*342.0*	*485.54*
2009	***51***	*20*	*779*	*771*	*3302*	*15306.09*	*35.81*	*493.5*	*560.13*
2010	***5***	***13***	*809*	*838*	*3531*	*15734.23*	*35.36*	*446.9*	*575.80*
2011	*677*	*168*	*942*	*929*	*3703*	*16090.48*	*32.78*	*391.9*	*588.83*
2012	*814*	*219*	*1010*	***1276***	***5312***	*16436.15*	*36.11*	*436.3*	*601.48*
2013	*625*	*134*	*768*	*1352*	*5343*	*17538.62*	*37.98*	*433.4*	*641.83*
2014	*629*	*129*	*695*	*1539*	*6467*	*18023.76*	*39.29*	*474.6*	*659.58*
2015	*558*	*94*	*772*	*1519*	*6428*	*18231.00*	*41.31*	*538.1*	*667.17*
2016	*420*	*101*	*993*	*1476*	*6269*	*17652.19*	*37.79*	*512.8*	*645.99*
2017	*455*	*129*	*1095*	*1413*	*6180*	*17671.98*	*33.35*	*439.1*	*646.71*

Source: (Education, Science and Culture in Azerbaijan.Statistical Yearbook. (2018, 2017, 2016, 2015),; https://www.stat.gov.az/source/education/; https://www.scimagojr.com/countrysearch.php?country=az the personal calculations of the authors.

It should be noted that, during that time the National Parlimant of Azerbaijan adopted a bill on "about the Science" (http://science.gov.az/uploads/PDF/Elm_haqqinda Azerbaycan Respublika-sinin_Qanunu.pdf) and the phrase of "Doctor of Philosophy" was adopted.

3. THE SPECIFICATION OF ECONOMETRIC MODELS AND THEIR REALIZATION

The number of indexed scientific articles on SCOPUS for Azerbaijan and the number of admitted students for Doctor of Philosophy program and other indicators that participating on the econometric modelling is studied by applying the unit root (Asteriou, 2016, pp.348-353).
The revenues of the state budget, the expenses spent on science and eduation are the indicators that impact the integration of science and education in the higher education. Therefore, we will assess the impact of those indicators to the number of indexed scientific articles on SCOPUS database. Below is the spesification of the econometric model for the educational expenses and its impact on the number of indexed scientific articles on SCOPUS database (Həsənli, 2008, p.29).

$$LOG(SCOPUS_DOC) = C(1) + C(2)*LOG(TEHSILXERCREAL) + u \qquad (1)$$

The results of (1) regression equation is calculated on the Eviews software which is shown below:

Table 2: The maın statıstıcal characterıstıcs of the econometrıc model for the number of artıcles on scopus to the real educatıonal expenses ın Azerbaıjan durıng 2002-2017 perıod.

Dependent Variable: LOG(SCOPUS_DOC)				
Method: Least Squares				
Sample: 2002 2017				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*1.343755*	*0.615195*	*2.184274*	*0.0464*
LOG(TEHSILXERCREAL)	*0.877837*	*0.105586*	*8.313968*	*0.0000*
R-squared	*0.831573*	*Mean dependent var*		*6.445368*
Adjusted R-squared	*0.819543*	*S.D. dependent var*		*0.414362*
F-statistic	*69.12207*	*Durbin-Watson stat*		*1.011476*
Prob(F-statistic)	*0.000001*			

The main statistical characteristics of the Model (1) on Table (2) shows that our model applied is adequate. Although the value of Durbin-Watson statistics is not satisfactory (the autoregression of the residues is partly available), but it is important for the analysis of the model. It should be noted that the availability of the autoregression of the residues makes the insignificant forecast of the econometric model. Below is the econometric modelling specification of the expenses on science to the number of indexed scientific articles on the SCOPUS database for Azerbaijan:

$$LOG(SCOPUS_DOC) = C(1) + C(2)*LOG(ELMXERCREAL) + u \qquad (2)$$

Here: LOG(ELMXERCREAL) – the natural logarifm of real expenses spend on science,
C(1)– fixed threshold, C(2)- elasticity coefficient.
(2) regression equation has been calcualted on the Eviews measurement tool and the results are below:

Table 3: The main statistical characterics of econometric modelling on the dependence between the number of scientific articles on scopus database and the real expenses in Azerbaijan

Dependent Variable: LOG(SCOPUS_DOC)				
Method: Least Squares				
Sample: 1996 2017				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*3.893831*	*0.201078*	*19.36477*	*0.0000*
LOG(ELMXERCREAL)	*0.786557*	*0.068200*	*11.53316*	*0.0000*
R-squared	*0.869293*	*Mean dependent var*		*6.144074*
Adjusted R-squared	*0.862757*	*S.D. dependent var*		*0.615620*
F-statistic	*133.0138*	*Durbin-Watson stat*		*1.066467*
Prob(F-statistic)	*0.000000*			

The main statistical characteristics of the Model (2) on the Table 3 shows that the model we applied is adequate. Below is the impact of the GDP value to the indexed number of scientific artilces on SCOPUS.

$$LOG(SCOPUS_DOC) = C(1)+ C(2)*LOG(UDMREAL) +u \qquad (3)$$

Here LOG(UDMREAL) – the natural logarifm of the real GDP value.
The regression (3) equation is calculated on the Eviews measurement tool (Table 4):

Table 4: The characteristics of the econometric modelling on the number of dependent articles on the scopus database to the real value of GDP

Dependent Variable: LOG(SCOPUS_DOC)				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Sample: 1996 2017				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*-1.447742*	*0.325467*	*-4.448203*	*0.0004*
LOG(UDMREAL)	*0.838829*	*0.035635*	*23.53948*	*0.0000*
AR(1)	*0.360016*	*0.161328*	*2.231580*	*0.0394*
AR(3)	*-0.639666*	*0.164801*	*-3.881451*	*0.0012*
SIGMASQ	*0.013851*	*0.006454*	*2.146302*	*0.0466*
R-squared	*0.961711*	*Mean dependent var*		*6.144074*
Adjusted R-squared	*0.952702*	*S.D. dependent var*		*0.615620*
F-statistic	*106.7479*	*Durbin-Watson stat*		*2.050845*
Prob(F-statistic)	*0.000000*			
Inverted AR Roots	*.56-.73i*	*.56+.73i*	*-.76*	

It worth meantioning that in order to achieve the relevance of the econometric model (3) regression equation is added the AR (1) and AR (3) avtoregression factors from the 1st and 3rd compiles. In econometric modelling the stabilization of the residues is important. This is being applied by unit root test. Since there is no unit root ($\sqrt{0.56^2 + 0.73^2} = 0.92 < 1$), we can accept the residuals as stationary. So, the main statistical characterists of Model (3) show that the model applied is adequate.

What is the relationship between the number of Doctor of Science and Doctor of Philosophy students in Azerbaijan? Table 1 shows that the ratio between the variables is gets the value of 4-5 during the years. Is there an optimal ratio between the variables? We can accept the maximum number of indexed scientific articles on SCOPUS database as an optimum criteria. In order to calculate the optimum criteria the regressions equation gets specification (5) and its results is shown on Table 5 below:

*ED = C(1) + C(2)*FD + C(3)*(FD)^2* *(5)*

Table 5: The calculation of optimal ratio between ED and FD

Dependent Variable: ED				
Method: Least Squares				
Date: 01/09/19 Time: 19:01				
Sample: 2006 2017				
Included observations: 12				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*-838.7940*	*283.0743*	*-2.963159*	*0.0159*
FD	*0.601611*	*0.126967*	*4.738338*	*0.0011*
(FD)^2	*-3.70E-05*	*1.32E-05*	*-2.803357*	*0.0206*
R-squared	*0.991024*	*Mean dependent var*		*1105.917*
Adjusted R-squared	*0.989029*	*S.D. dependent var*		*349.4935*
S.E. of regression	*36.60618*	*Akaike info criterion*		*10.25063*
F-statistic	*496.8396*	*Durbin-Watson stat*		*1.564682*
Prob(F-statistic)	*0.000000*			

The (5) equation shows that as an explained variable ED is the parabola of FD. The ED gets the maximum value from the ratio of FD/ED=5.051537. This means, if the ratio between the number of people with Doctor of Science and the Doctor of Philosophy degree is 1:5, then this ratio would be maximum. In order to calculate the maximum number of scientific articles on SCOPUS, we should eccept it as an explained variable and formluate the econometric model.

We are going to label the indexed articles on SCOPUS as explained variables to calculate its maximum value and the number of PhD candidates as explanatory variables in order to run the model. The specification of econometric model is following:

*LOG(TOTAL_DOC_SCOPUS) = C(1)*LOG(EDQ) + C(2)*(LOG(EDQ))^2 (6)*

The results of Model (6) are on the Table 6.

Table 6: The calculation of optimal grade of doctor of science students and the maximum number of scientific articles on scopus for Azerbaijan

Dependent Variable: LOG(TOTAL_DOC_SCOPUS)				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Sample: 1996 2017				
Included observations: 22				
Convergence achieved after 9 iterations				
Coefficient covariance computed using outer product of gradients				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
LOG(EDQ)	*3.030821*	*0.097711*	*31.01831*	*0.0000*
(LOG(EDQ))^2	*-0.334764*	*0.023584*	*-14.19469*	*0.0000*
AR(12)	*-0.552315*	*0.241900*	*-2.283235*	*0.0348*
SIGMASQ	*0.127901*	*0.075740*	*1.688693*	*0.1085*
R-squared	*0.646450*	*Mean dependent var*		*6.144074*
Adjusted R-squared	*0.587525*	*S.D. dependent var*		*0.615620*
S.E. of regression	*0.395377*	*Akaike info criterion*		*1.343514*
Durbin-Watson stat	*1.204392*			
Inverted AR Roots	*.92+.25i*	*.92-.25i*	*.67-.67i*	*.67+.67i*
	.25-.92i	*.25+.92i*	*-.25-.92i*	*-.25+.92i*
	-.67-.67i	*-.67-.67i*	*-.92+.25i*	*-.92-.25i*

The caracteristics of Model (6) is satisfactory. The equation shows that EDQ=92,46244, which means, the maximum number of admitted Doctor of Science students is 92. In this case, the number of indexed scientific articles on SCOPUS is maximum, in other words it is: 3144,254.

4. THE RESULTS OF ECONOMETRIC MODELS

- The results of Model (1) show that 1% increase on real education expenses increases the number of articles from Azerbaijan on SCOPUS by 0.877% during 2002-2017 period.
- The results of Model (2) show that 1% increase of the expenses on science on current year increases the number of articles from Azerbaijan on SCOPUS by 0.786%.
- The results of Model (3) show that 1% increase of the real value of GDP increases the number of articles from Azerbaijan on SCOPUS by 0.838%.
- The results of Model (4) show that there ratio between the number of students of Doctor of Science against the students of Doctor of Philosophy should be 1:5 in order to acheive the maximum number of articles from Azerbaijan on SCOPUS database.
- The results of Model (5) show that the optimal level of ratio between the number of Doctor of Philosophy students who defended the dissertation and the number of Doctor of Science students who defended dissertation is 5.051537. This means, if the ratio between the people with Doctor of Science degree and people with Doctor of Philosophy degree is 1:5, then the number of articles from Azerbaijan on SCOPUS would be maximum.
- The results of Model (6) show that the number of articles from Azerbaijan would be maximum if the number of admitted Doctor of Science students would be 92. Table 1 shows that the number of admitted Doctor of Science students were 129 in 2017.

5. CONCLUSION

The result of the econometric modelling shows that there is a optimal ratio between the admitted students to Doctor of Philosophy and Doctor of Science and the number of students who defended their dissertation on Doctor of Science and Doctor of Philosophy, which impacts the maximum number of indexed scientific articles on SCOPUS database for Azerbaijan. Such as, the optimal ratio of Doctor of Philosophy students against the Doctor of Science students is 5:1. If the number of admitted Doctor of Science students would be 92, then the number of indexed articles would be maximum on SCOPUS. The real value of GDP, the expenses on education and science was assessed against the number of indexed articles on SCOPUS. Therefore, the ratio of the expenses on science and education to GDP and the increase on the GDP value positively impacts the number of PhD candidates in Azerbaijan. This results in the increased number of indexed scientific articles on SCOPUS database for Azerbaijan.

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APPENDIX

The definition of variables:

- FDq: PhD Admission in current year;
- EDq: DSc Admission in current year;
- SCOPUS_Doc: Total SCOPUS Document for contry in current year;
- ED: Number of DrS in country with diploma;
- FD: Number of PhD in country with diploma;
- ÜDMReal: Value of real GDP in Azerbaijan for the current year; 1996 is the base year;
- ElmXercReal: Scientific expenditures calculated by real prices for the current year;
- TehsilXercReal: educational expenditures calculated by real prices for the current year;
- RealUDMfaizle: GDP index of the current year againt the previous year excluding the inflation, 1996 year is the base year.

WHAT AGRICULTURAL PRODUCTS CAN INCREASE THE COUNTRY'S EXPORT POTENTIAL

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ABSTRACT

The aim of this paper to analyze an agricultural potential of Azerbaijan in the case of its olive production. Due to widespread of olive products in the Mediterranean countries, people often associate manufacturing of olive oil and preserved olives with such countries as Spain, Portugal, Greece, Turkey, Italy, Cyprus, Malta, France, Slovenia, and others. The goal of this paper to reveal the agricultural potential of the domestic market, provide a SWOT analysis of effective functioning of the olive sector in Azerbaijan, learn the world and domestic trends of olive oil production and consumption. Research shows that sales of olive oil non-producing countries have been growing and olive oil production is under the regulation of the common agricultural policy of the European Union. Because of distinctive flavor and healthy characteristics, olive products occupy a premium position in the mind of consumers. Mathematical analysis of future trends of olive oil system also is reviewed in this study. The held research gives strong recommendations small and medium entrepreneurs for the growing and improving olive oil industry in Azerbaijan, as well as carries out general policy, maintain the general economic sustainability of national agriculture. Azerbaijani farmers should learn and analyze best practice of olive oil producers and using David Ricardo comparative advantage theory develop a common agricultural policy for the country as a whole and along with export of energy resources diversify an export basket by manufacturing consumer superior goods accordance with global market demand, make a new brand "Made in Azerbaijan" prestigious and easily recognizable among different countries in long-term perspective. Marketing strategies for entering international markets also suggested and can draw the attention of local manufactures.

Keywords: *common agricultural policy, brand, marketing strategy, olive oil production, SWOT analysis*

1. INTRODUCTION

One of the major challenges of the 21-st century is an eradication of hunger in the world. This problem is reflected as a number one in the United Nations Millennium Declaration. Agriculture should play a significant role in solving this globally recognized problem. Many different reasons prevent to solve the problem once and for all: for example population growth, global warming, reduction in arable land per capita, lack of water for irrigation, constantly rising prices for raw materials and equipment, shortage of qualified specialists in agriculture and low labor productivity and etc. Unfortunately, agriculture can't provide an instant positive effect, because investors' attention today is more focused toward the extractive industry than wasteful agriculture. After the collapse of the USSR, Azerbaijan slowly, but surely discovered its own way and has built a new strategy for integration into the world economy. The first way was focused on the oil industry. For quick recovery, it was the only way to go. In 2012 a new concept of development "AZERBAIJAN 2020: LOOK INTO THE FUTURE" was adopted. This concept defines the country's economic policy, main vectors of economic diversification, high growth rates of the non-oil sector, regardless of the level of oil revenues and maintaining its export capabilities in near future. Based on the export-oriented economic model, the concept envisages an increase in non-oil exports through improving the competitiveness of the economy and improving the structure of the economy and by increasing the per capita non-oil export to

$ 1,000 by 2020. After an economic slump of oil prices in 2016, the Azerbaijani government launched eleven strategic roadmaps (SRM) supporting the national economy and its main economic sectors. Among them three roadmaps focused on production and processing of agricultural products, manufacturing consumer goods by small and medium entrepreneurs, improving supply-chain and expanding the international trade geography. The rest about the prospects of the national economy, development of heavy industry and machinery; tourism sector; housing provision at a reasonable price; vocational education and training; financial services communication and information technologies utilities (electricity and thermal energy, water and gas supply). This fact says that Azerbaijan is building a new economic model based not only on crude oil and gas, but stresses focus on the diversification of its entire economy. National agriculture should play a leading role in this direction. However, the official statistics of 2017 indicates that the portion of the non-oil sector in export is very small - 11%. This situation necessitates the expansion of export and diversification through the development of competitive products in the non-oil sector. This paper draws more attention to the optimal production of olive oil, preserved olives, and olive jam. Olive stones are used for house heating in Italy and in some other developed countries. In developed countries, the industrial processing of olives gives marketers the cellulose. Azerbaijani cuisine prepares from green olives a jam for lovers of delicious dessert. In the frame of diversification of the economy and development of small and medium businesses in Azerbaijan, olive products can take a worthy place in the export basket of the country.

2. THE GENERAL VIEW OF OLIVE PRODUCTION IN AZERBAIJAN

The first mentions of olives in Azerbaijan have been known since the 8-10 centuries. As a result of frequent inroads of the Mongolian Golden Horde to Azerbaijan, many olive groves were destroyed. The age of a very old olive tree is about 200 years in Azerbaijan. The first specialized olive state farm (in the past was called sovkhoz) was organized in the settlement Zigh in 1949 (Nabiyeva, 1966, pp. 128). The first and only plant on olive processing was constructed in Baku, near the settlement Mashtaga of Absheron Peninsula. Until the 1980s, the olive industry was one of the leading sectors in the agro-industrial sector of Azerbaijan. Cultivation and processing of olives were carried out in the Krasnodar, Dagestan, Armenia, Georgia and the Crimea. But, in accordance with decisions from Moscow, the mass production of olives in the USSR was recognized as "inexpedient". Over the last 40 years, olive areas have been reduced by more than five times. In spite of all difficulties of the transitional period, Azerbaijan could maintain on a small scale the processing facilities.

2.1. Optimal functioning of olive production flow chart

Optimization of economic activity, improvement of agro-technical services, reduction of cost of production of olives, increasing of economic efficiency of the olive complex is a long process designed for the future and determined by economic conditions and opportunities, as well as the level of development of the region's productive forces. The optimal functioning of the olive complex is inseparably linked with the rational organization and purposeful use of the economic mechanism. The economic mechanism of the olive complex is understood as a combination of methods of planning, economic incentives, organization, and management. For the purpose of investigating the possibilities and interaction of separate elements of the economic mechanism, it is necessary to systematize and classify all elements and parts, and on basis of developing a scheme of the economic mechanism for local use.

Figure following on the next page

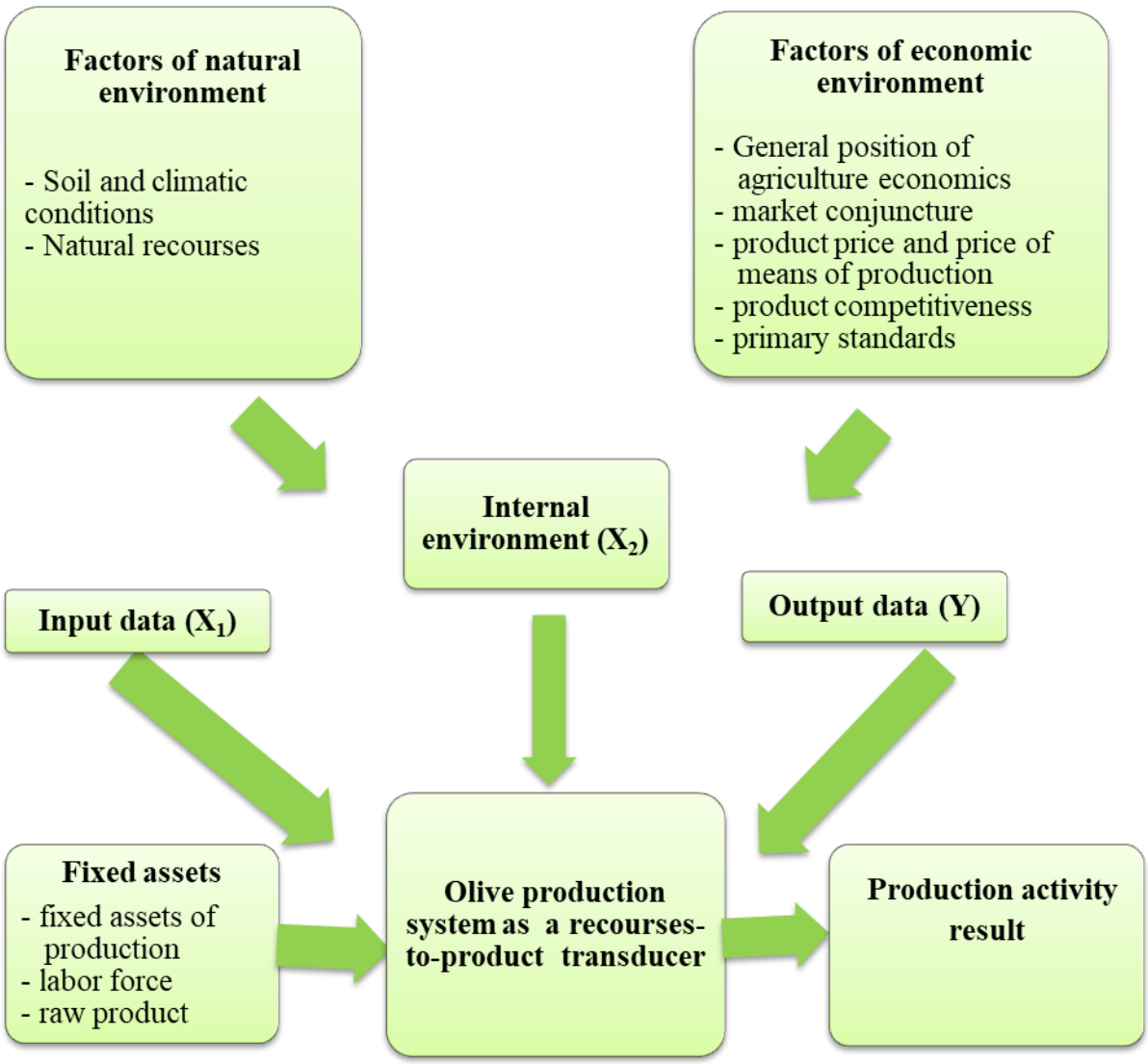


Figure 1: Optimal functioning of olive production flow chart

$$Y=F(X_1,X_2)$$

The present scale of development of olive production specifies the use of an integrated approach and the creation of appropriate conditions for their functioning. In this context, the role of such scientific methods as system analysis, systems approach and factorial method, factor approach, program-target method are increasing. A program-target method is a tool of the deepening system approach and complex analysis and development of economic, scientific and technical, territorial production programs of the olive oil production. Olive system is a complex of interrelated and dynamically interacting components aimed at achieving a common goal. The olive system covers a whole package of economic relations from olives growing to final consumer goods. Olive system quite a complex system with plenty of internal and external interconnections, number of hierarchy levels, decision-making layers, a period of the system's action. (Menesku, 1986, pp. 15-25, Hajizalov, 1995, pp. 53-57). The flow-chart of the optimal functioning of the production, processing, storage, and sale of the product plays a big role in the process of olive production analysis. The chart is the mechanism by which the system behavior is realized, in other words, the inputs are converted into outputs, independent variables into dependent ones.

The flow chart of optimal functioning of olive production is given at flow chart 1. As can be seen, the olive production system is affected by such external factors as the soil and climatic conditions of suburban farms, the availability of skilled labor force, the level of prices for raw materials, the fixed assets of production and etc. In turn, the system has an impact on the environment, changing it, consuming labor force, fixed assets, natural resources, and others. The environment has an influence on the concerned system through the relevant elements, which are called system inputs, and factors of the external environment that implement these effects are called input data. The system of "olive production" in turn affects the environment through specific elements that form the output of the system. The environmental factors of a system are defined as output data. Input data as external influence is called impulse, while output data as a result of an effect is called reactions to relevant impulse. When the model reproduces the interaction between the system and the environment, the system behavior is described through the instrumentality of some number of input and output data, that is, a system of characteristics (input Xi, output Yi). These characteristics may change over time and should be considered as system variables. Factors of natural environment represent independent variables (X), but system response – function (Y). Formalized model of the system's input and output makes it possible mathematically define the process of its action considering output values as functions of input.

$$Y=F(X)$$

The system is influenced by an infinite variety of external factors and accordingly can respond to them in different ways. In real terms the consideration of all forces is impossible. The research task is to consider a specific phenomenon with a limited number of variables. Conducting the research of the olive production system, the most important factors are the area of olive plantations and the yield per hectare. (Musayev, 1973, pp. 39-45, Andreozzi, 1998, pp. 2357-2364). Based on the use of economic and mathematical methods and computer technology the present flow chart provides a better understanding of the problem of optimizing the functioning of the olive system.

2.2. THE CURRENT STATE OF PRODUCTION OF OLIVES IN AZERBAIJAN

The available data for 2017 indicate that total area of olive orchards in Azerbaijan account about 3351,4 ha. They are concentrated in Baku city (46,8%), Absheron peninsula (42,8%), Ganja-Gazakh economic region (0,06 %), Guba-Khachmazeconomic region (4 %), Aran economic region (6,2%), Daghlig Shirvan economic region (0,006 %) and Yukhari Garabagh economic region (0,006 %). Regarding Yukhari Garabagh economic region provided factual information refer only to Jebrayil district because since 1994 most of the Yukhari Garabagh region with the support of Armenian Republic is occupied by the unrecognized Nagorno-Karabakh Republic. Azerbaijan controls only the extreme eastern parts of the Agdam, Terter, and Khojavend districts, as well as most of the Fizuli district too. That's why the full statistics can't be provided. As seen, prevalent part olive orchards are located in the capital – Baku city and two economic zones of Azerbaijan - Absheron peninsula (42,8%), Ganja-Gazakh, because these regions have a temperate climate and suitable soil for their growth. Within the total area of olive orchards (3351,4 ha) olive trees at fruit-bearing age account 2 777,1 ha or 82,7 %.

Figure following on the next page

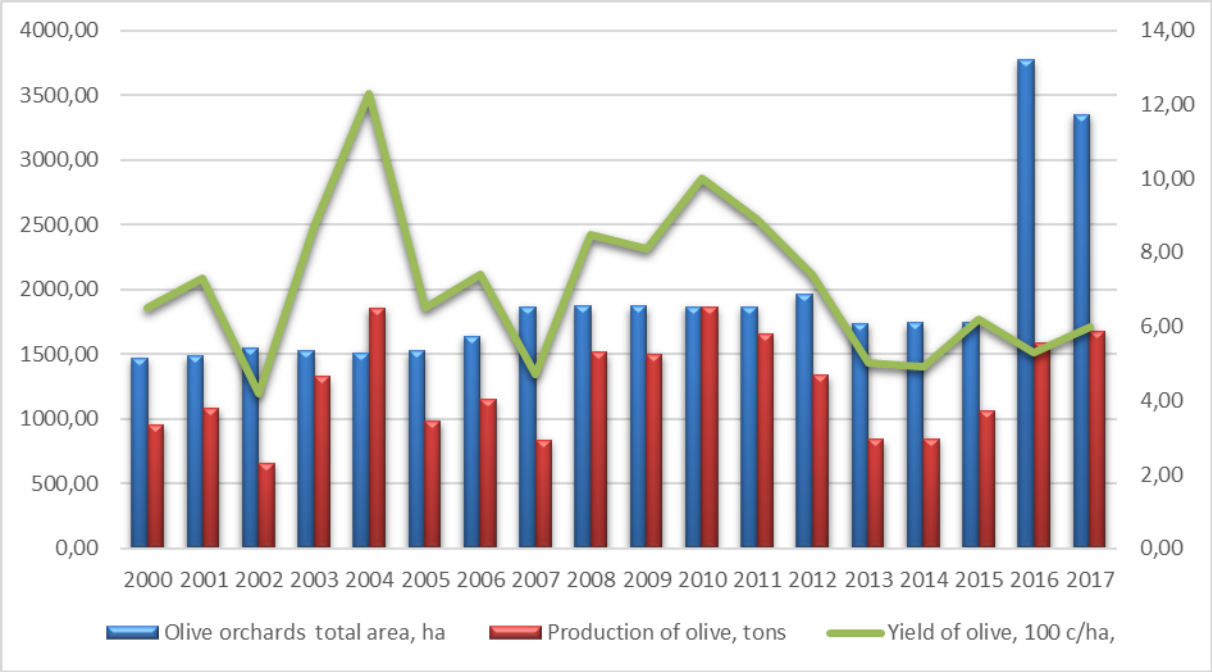


Figure 2: Olive statistics in Azerbaijan (self compiled on the base of Statistical Committee of the Republic of Azerbaijan)

As shown in Figure 2, in the period from 2000 to 2017 the total area of olive orchards had been increased from 1468 ha to 3351,4 ha, total production had been increased from 952 to 1679,5 tons. However, the yield of olives has been reduced. The following reasons influenced on olive statistics in Azerbaijan over the 17 years:

- occupation of Yukhari Garabagh economic region by Armenian army;
- transition difficulties after the collapse of USSR;
- lack of state support to agriculture;
- lack of agro-industrial complex;
- due to the high prices and lack of knowledge on consumer properties of olive oil weak consumer preferences;
- the financial insecurity of local farmers;
- the arbitrariness of local authorities and buyers;
- lack of Futures Contracts and a system of crediting and others.

In the Soviet times Azerbaijan had good skills for manufacturing preserved olives. Baku grocery stores sold table olives in small jars and even three-liter cans. But manufacturing of olive oil wasn't demanded. People preferred cheapest sunflower oil. After opening a new plant new equipment for pressing oil was purchased from Greece. Consumers began to understand the beneficial properties of olive oil. Unfortunately, olive oil became scarce and was sold to veterans of the Great Patriotic War 1941-1945 and people suffering from diseases of the gastrointestinal tract. In the context of a command economy, Azerbaijan didn't have a possibility to use the D. Ricardos' principle of comparative advantage. This principle is suitable for free trade, and now Azerbaijan may use this theory and sell preserved olives and olive oil to Russian and Iran markets instead of there for example fish and medicaments and other traditional products. The agent will produce more of and consume less of a good for which they have a comparative advantage. Comparative advantages studies show that the geography of Azerbaijan's non-oil exports through the EU (EU) countries can be substantially expanded and its scope can also be substantially increased.

It is known that the political and economic relations between the Russian Federation and the EU have been aggravated by the problem of "Eastern Ukraine", as well as mutual economic and commercial embargoes. All this, namely the ability to replace Russian products in EU markets, can be regarded as a chance to diversify Azerbaijani exports both geographically and commercially. The significant part of Azerbaijan's exports to the European Union belongs to the oil sector. To be able to reduce the dependence of the domestic economy from oil and gas it is necessary to produce non-oil products with comparative advantage and adapt them requirements of EU.

3. THE PERSPECTIVES OF THE OIL MARKET OF AZERBAIJAN

Olives are called “zeytun” in Azerbaijan and due to the suitable soil, the main of orchards are to be found on the Absheron Peninsula. The olive trees are most demanding of water and sun. Olive trees successfully have been cultivated in Azerbaijan for a very long period of time. They can be grown almost at every turn in Baku city. Olives were planted in the metropolitan areas, schoolyards, at roadsides since Soviet times. They are really unpretentious and evergreen plants. And it is no mere chance that during USSR first and the only plant on olive processing was built in Baku, in settlement Mashtaga of Absheron Peninsula. In the 1980s the plant supplied oil and canned olives not only to all former Soviet republics but to Libya and Czechoslovakia too. The plant was most profitable in this period. 2,500 tons of olives tons were processed annually. Unfortunately, the total area of olive groves significantly smaller, than in the Soviet period. And as a consequence reduction of olive production. Apart from this plant, there is only one more state plant in settlement Hovsan, Absheron. Now, this plant belongs to Gilan Holding. According to the official statistics for the last five years on an average Gilan Holding exported 500-ton olive oil to international markets annually. In other words, 50 % of the total amount was sold to Georgia, 20 % Kazakhstan, 15 % Irag, and the rest to EU. Of course, import exceeds export and makes up 1100 ton annually. It means that foreign olive products lead in the domestic market. For a newly developing country this is quite understandable because in a market economy every consumer has the right to free choice. Whereas the maximum price of 0,5 liters olive oil of Spain and Italian producers varies between 20-24 AZN (Azerbaijani manat), the price of local producers ranges around 12-14 AZN and it is more normal. Today Azerbaijan oil market mostly is represented by sunflower-seed oil, corn oil, and olive oil. They are imported mainly from Russia, Turkey, Italy, Spain, Greece, and Arabian countries. Rising consumer health problems concentrate people towards olive oil consumption. Providing a domestic market with locally produced olive oil with the support of imports in principle is possible. Well-informed consumers try to use fats and some other oils (such as palm oil) as little as possible. Olive orchards do not require irrigation like many other fruit trees. But the yield of olive must be mechanized and even robotized. Production costs in modern olive orchards are lower than in mountain areas. The mechanization and marketing planning of operations promote time management between harvesting and pressing of the olives, which has a positive impact on the quality in the final analysis. Local manufactures consider that Azerbaijan can increase further production of olives can gain a great profit and make a brand “Made in Azerbaijan” more recognizable. Agronomists have calculated that one ha of olive grove can yield from 2 to 2,5 tons of olives, or 30 kg from one tree. In accordance with international standards, local brands as Gilan Zeytun uses the modern Italian equipment and produce an extra virgin “Jalə” olive oil and “Azərbaycan Zeytunu” canned olives. The minerals and heavy metals in the oil and preserved olives are not allowed. Annually the plant takes about 300 tons of olives from olive groves on the Absheron Peninsula. 100 tons are canned and the rest portion goes for oil extraction. Black olives pressed for oil, green for canning. In case of careful SWOT analysis, Azerbaijan can be specialized on olive oil production in the region.

Figure 3: SWOT-analysis of olive sector of Azerbaijan (self-compiled)

Strength	Weakness
• A suitable geo-economic situation of the country • sustainable growing economy and agriculture • good skills for cultivation and processing health-giving qualities • suitable temperate climate, suitable soil, dry atmosphere • good skills for canning table olives from Soviet times • turn away from animal fats in favor of vegetable alternatives	• Due to the occupation of 20 % Azerbaijani territory weak investment attractiveness from foreign investors • purchasing of pressing oil equipment from abroad • lack of equipment for collecting olives • hand picking olives and as result crop shortage • high prices for olive oil in comparison with sunflower and corn oil and as consequence low consumer preference at the domestic market • limited numbers of olive production plants
Opportunity	**Threat**
• A suitable geographical market and expanding of export to Georgia, Kazakhstan, EU, Russian Federation, Iran • manufacturing of olive cosmetics (soap, creams, masks and etc.) • implementing of state oil policy • improving supply-chain • expanding the international trade geography • strong agricultural policy • development of oleoturism • to be able to increase domestic consumption conducting of advertising campaigns • conducting workshops for local farmers	• A growing market of Georgia • domination of direct investments in the oil and gas industry • strong positioning of sunflower and corn oil in the consumer's mind • low motivation of local farmers to conduct olive business and lack of interest to cultivate olives • inability to compete with foreign brands and weak competition among local producers

4. CONCLUSION

Olives are a new culture, it is important to popularize it since it is very much in demand in almost all countries The government is trying to build the new oil policy in the country. In 1995 the EU decided to wage a generic pan-European campaign with the aim to promote the use of olive oil. (Brassington, Pettitt, 2005, pp.55-56). It is necessary to learn the best practice of EU in Azerbaijan too. Such policy will encourage producers to create own-label products, compete with foreign suppliers and thus undercut branded prices, make consumers more knowledgeable about healthy features and cooking possibilities of olive oil. In other words the olive industry needs firstly a state support and it can be achieved within the context of third and fourth Strategic Roadmaps (Strategic Road Map for the manufacture and processing of agricultural products in the Republic of Azerbaijan; Strategic Road Map for the manufacture of small and medium entrepreneurship-level consumer goods in the Republic of Azerbaijan) endorsed by the President of Azerbaijan Republic. Domestic entrepreneurs should develop a marketing plan on how to attract customers' attention and gain their preferences. So, equitable competition should be guaranteed. All parts of promotional mix – strong advertising, publicity, and public relations should be activated. Using these tools local manufactures of the private sector may identify new demographic or geographic markets and successfully use market development strategy. In this context, supply chain mechanism should be strongly activated. And the last thing, what I want to say… It is well known that the olive branch is a symbol of peace. Azerbaijan holds this branch to all neighbors, who want to benefit from economic collaboration.

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INTERNATIONAL EXPERIENCE IN ENSURING THE STABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES AND THEIR ROLE IN THEAZERBAIJANI ECONOMY

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ABSTRACT
The main purpose of the research is to establish the structure of small and medium-sized enterprises, to ensure the current financial sustainability, to make assessments in line with the results of that analysis and to develop proposals on it. The research was carried out on the basis of research methods such as scientific abstraction and systematic analysis, logical summarization, and statistical analysis. As a result of the research, it has been determined through research and analysis that one of the most important priorities of economic policy in the country is to ensure sustainable development in enterprises. Large-scale and multifaceted measures are being taken to ensure sustainable development in Azerbaijan. A number of proposals have been made, taking advantage of international experience in addressing the issues raised in this area and ensuring durability. The practical significance of the research is that, as a result of the research, the role of the enterprise's financial sustainability has been identified, its role in the economy has been disclosed. The results and recommendations formed as a result of the research can be used to manage businesses. Scientific novelty and originality of the research: the current state of financial sustainability management in small and medium-sized enterprises was analyzed; proposals were made on the basis of results; assessment of financial sustainability of small and medium-sized enterprises was conducted, proposals on results were submitted; Directions for improving financial sustainability of small and medium-sized enterprises have been identified, proposals have been put forward.
Keywords: *entrepreneurship, small and medium enterprises, strategic road map, sustainability*

1. INTRODUCTION

The development of small and medium-sized entrepreneurship in Azerbaijan is of particular importance in terms of diversifying the economy, raising competitiveness, ensuring employment, replenishing demand for consumer goods through local resources and ensuring economic development. Thus, in the developed countries, when considering the share of small and medium-sized entrepreneurship in GDP and employment, it can be concluded that transformation of the small and medium-sized entrepreneurship to the main driving factor in sustainable economic development in Azerbaijan is one of the main challenges ahead. As its name implies, small and medium-sized enterprises small and medium-sized entrepreneurship are more important than large-scale businesses in the economy. In particular, small and medium-sized entrepreneurship have indispensable opportunities in matters of Gross Domestic Product (GDP), increased employment, and also the budget's tax needs.

2. THE ESSENCE OF MANAGING FINANCIAL SUSTAINABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES

The strength and durability of the economy in each country is due to the development of small and medium businesses in that country. As a small and medium-sized business type of business, it is now very widespread in the world and is growing steadily. The widespread use of this type of activity is related to its many advantages. Thus, one of the most important roles of small and medium entrepreneurship in the economy is to create and strengthen competition.

These businesses help increase employment or create new jobs in the economy. In addition, small and medium-sized enterprises are more responsive to the needs of the population and can respond more quickly to market conjuncture changes. High development of small and medium enterprises also contributes to the distribution of production facilities among more subjects. It is no coincidence that state-funded funds are created to support the development of small and medium-sized businesses in each of the developed countries. The biggest role of small and medium-sized businesses in the economy is the protection of competition. It is possible to strengthen the competitive environment in the country by developing this sector. Another important contribution to this sector of the economy is the creation of new jobs. The power of the country's economy depends on the level of development of its fields, and even the power of each economic entity, enterprise and organization. The more dynamic and sustainable development of each venture, the stronger the field. If all spheres develop strongly, the country's economy will be stronger. Successful outcome of any enterprise depends on many factors. One of them is the enterprise's sustainable and sustainable management. Sustainable development is one of the most important conditions in the market. If the enterprise has no sustainable development, it can not continue to collapse in competition and market. If the enterprise is competitive and wants to work for perspective plans, that should ensure sustained development. To do this, you need to develop enough initial capital and turnover capital, sufficient professional staff potential, strategic plans, trends and perspectives in that area, and choose the right tactics, strategies.Implementation of these records constitutes the basis of the organization's sustainability and management as it is an integral element of the entity's existence. The importance of ensuring sustainability for businesses is crucial to its high level of management and maintenance. To ensure the sustainable development of small and medium businesses:

- The financial opportunities of entrepreneurs should be expanded. In other words, entrepreneurs working in this sector should have access to financial resources not only from the state, but also from private institutions. Entrepreneurs should be able to benefit from preferential loans at the expense of commercial banks.
- In order to support commercial banks' real sector, banks that support small and medium-sized businesses should be encouraged. That is, certain discounts can be made to banks that give more money to the real sector.
- It is possible to support this area not only with financial support, but also with special programs. For example, gender balance in the small and medium-sized businesses should be supported. This experience in world countries can be brought to our country. For example, small and medium-sized businesses, which are the head of women, can be stimulated by tax incentives.
- Small and medium-sized enterprises with export opportunities may be granted subsidies for export volumes. Thus, the more enterprises export the product, the more countries are allowed to enter the currency. Therefore, SMEs with high export capacities should be encouraged.

Small enterprises play an important role in filling the domestic market with commodities and services, the liquidation of monopoly and expansion of competition in all spheres, as well as the emergence of entrepreneurial creativity, the attraction of existing labor and aterial resources, and the comprehensive provision of the population's needs. At the same time, small enterprises have to go through the republic's market relations, improve market mechanisms, create direct economic relations between producers and consumers, and involve more labor force in the economic reform and technological restructuring, and finally increase the incomes and purchasing power of the population. are important. According to the macroeconomic parameters of the financial sustainability of enterprises, the criteria for classification of

enterprises in our country were approved by Decree 556 of 21 December 2018 of the Cabinet of Ministers of the Republic of Azerbaijan. Let's analyze those indicators in accordance with the goals and objectives of the research.

Table 1: Distribution of micro, small, medium and large entrepreneurship subjects

Types of Entrepreneurship Subjects	Average number of employees (person)	Annual income (ig) (thousand AZN)
Micro entrepreneur	1 – 10	ig ≤ 200
Small entrepreneur	11 – 50	200 < ig ≤ 3 000
Medium entrepreneurship	51 – 250	3 000 < ig ≤ 30 000
Big businessman	251 and above	30 000 < ig

Source: The table was prepared by the author on the basis of www.economy.gov.az

According to the criteria, 1 percent of legal and physical entities registered in 2017 are large, 2 percent are medium and 97% are small entrepreneurs. It should be noted that small and medium-sized enterprises in the European Union are divided into 3 groups: micro, small and medium-sized companies. The number of employees is smaller than 10, annual turnover of 2 million euros, smaller companies with less than 50 employees, annual turnover of 10 million euros, medium size companies with less than 250 employees and annual business turnover of up to 50 million euros. Please be informed that providing financial support, cash repayment, tax breaks, etc. to make small and medium-sized enterprises more effective in the world. various types of incentive tools are used. Development of small and medium-sized enterprises in Azerbaijan is a serious issue. For this reason, from the macroeconomic policy, there is a need to take measures that address a number of issues, including clear objectives, from the perspective of the citizens of Azerbaijan, particularly entrepreneurs and related government officials. Therefore, the implementation of institutional changes that support the development of the small and medium-sized enterprises and the creation of favorable conditions for their development are of strategic importance. Under the Decree of the President of the Republic of Azerbaijan dated December 28, 2017, the Small and Medium Entrepreneurship Development Agency under the Ministry of Economy was established. In accordance with the socio-economic development strategy led by the President of the Republic of Azerbaijan, the measures to expand entrepreneurship and enhance its role in the economy, further improve the business and investment environment in our country systematically and consistently. The new economic conditions are being implemented in support of the private sector, the protection of entrepreneurs' rights and interests, and the development of this field is based on international experience, taking into account modern challenges. As a result of government support measures over the past period, the number of entrepreneurship entities has increased 4.3 times over the past 15 years, while the share of private sector in gross domestic product is 80 percent, while employment share is 75 percent. While preparing proposals in this area, progressive management practices in international practice in entrepreneurship development and regulation have been investigated. Thus, in a number of developed countries the implementation of investments, modern technologies, advanced management practices and state regulation mechanisms for the development of entrepreneurship, especially Small and Medium Entrepreneurship stimulation of production of high quality, competitive and exportable products, information, legal and economic consulting services to entrepreneurship subjects and establishing appropriate institutions to assist in the establishment of effective cooperation with their governmental organizations, local and foreign partners. Establishment of the Small and Medium Entrepreneurship Development Agency, which will play a special role in the development of the private sector in Azerbaijan, is another manifestation of the constant attention and care of

the head of state to the development of the private sector, especially small and medium enterprises. The state program for small and medium entrepreneurship, covering the years 2016-2020, should be developed and implemented; entrepreneurship subjects in the legislation should be classified based on their size, and the concept of micro-enterprises should be included in the legislation. At the same time, it is proposed to establish private credit bureaus. There is also a need to establish specialized banks with close involvement of the state. In addition, it is emphasized that the loans granted to small and medium-sized enterprises and the guarantee fund are created. It also says that there is a need to improve the legislative framework to develop the securities market and stimulate small and medium-sized enterprises access. Along with this, it is proposed to establish a normative legal framework regulating the trading of local securities in foreign stock markets and to apply the relevant trading system to ensure the access of the small and medium-sized enterprises to foreign financial markets. Finally, the Government emphasizes the importance of developing a system of privileges and normative acts to support small businesses, including the implementation of microfinance programs, franchising, factoring, leasing.

3. FACTORS AFFECTING THE FINANCIAL SUSTAINABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES AND THEIR ANALYSIS

Strategic vision for the development of small and medium-sized enterprises in Azerbaijan by 2020 is to further improve the business environment, facilitate the access of SMEs to financial resources and sales markets, and to increase competitiveness and increase their role in economic development through increased knowledge and skills. As a result of the successful implementation of the envisaged measures, the main objective is to achieve the share of small and medium-sized enterprises in GDP and employment by 15 and 20 per cent respectively, while the share of non-oil exports in the country is 10 per cent. The long-term view of Azerbaijan for the period up to 2025 is to further increase the competitiveness of the small and medium-sized enterprises, to ensure the daily supply of consumer goods mainly through small and medium-sized enterprises, and to significantly increase the share of small and medium-sized enterprises in GDP and employment.

Table 2: The amount of investment required by the measures to be taken on the strategic road map and the expected results

№	The name of the priority	Impact on Real GDP (million AZN) 2020	The employment (full-time employees 2020)	The investment (million AZN) 2020
1.	Establishment of centralized small and medium entrepreneurship agency	200	240	10
2.	Creation of special industrial zones and clusters for small and medium-sized enterprises	475	23330	630
3.	Termination of the activity in the field of settlement of bankruptcy issues	450	900	-
4.	Expansion of financial services for international trade operations of small and medium-sized businesses and direct foreign investment promotion	55	9800	3
5.	Creation of foreign associations on separate sectors	45	-	-
6.	Development of business incubators and startup projects, creation of model businesses	35	-	50

- Note 1. This table outlines priorities that only allow for more than 10 million manat or more than 100 jobs in real GDP in 2020. Other priorities have a supporting role in achieving the intended outcomes.
- Note 2. These figures have been given to create a clear idea of the impacts of priorities. During the implementation of the measures, it is necessary to conduct comprehensive analyzes and clarify the figures for each priority.

The business environment in Azerbaijan has been further improved and the country has achieved a high score on some indicators of the World Bank's Doing Business 2017 (eg business start, property registration). With the creation of e-government portal in line with international experience, public services have been expanded. Innovation framework for small and medium-sized enterprises has been improved through both infrastructure (eg industrial parks, technology parks and business incubators) and financial support (creation of a special fund for information and communication technology (ICT) sector). Development of small and medium enterprises is one of the most important modern economies. Each country, regardless of its level of economic development, wants the small and medium-sized enterprises to have an active share of the economic growth in terms of modern requirements. The main burden in this direction is undoubtedly the state and its support for the development of this area. It is known that state support is a measure that is implemented through a certain mechanism. In each country, this support mechanism has its own peculiarities and development trends. The article considers the support mechanism which is characteristic for Azerbaijan, and specific development models are put forward. The necessity of state support mechanism Formation of state support requires a certain mechanism for the development of small and medium-sized enterprises as a long-term economic program in terms of economic evaluation. The functioning of this mechanism should be systematic. In some countries, state support to small and medium-sized enterprises can not be assessed unambiguously, as the state support mechanism should be able to respond to changing market conjuncture and its impact capacities should become asymmetrical for all sectors of the country's economy. While characterizing the state support mechanism for small and medium-sized enterprises in Azerbaijan, it should be noted that the main direction is the program-targeted measures. It should be borne in mind that small and medium-sized enterprises stimulation and diversification policies, which demonstrate a weak position in the formation of key macroeconomic indicators in the national economy, are mainly covered by programmatic events. In this aspect it is necessary to emphasize that the state support in our republic is a correct choice from the point of view of strategic choice. Improving the state support mechanism for small and medium-sized enterprises, in particular, is one of the most complicated issues to consider innovative factors in this process. In our opinion, the need for state support for small and medium-sized enterprises in Azerbaijan should not be assessed by time. It is important to differentiate the main directions of state support to small and medium-sized enterprises in Azerbaijan. These include:

- Providing state support to those who want to engage in new entrepreneurship (small and medium-sized). Especially in the direction of expansion and stimulation of family business (within the framework of the ABAD Program).
- Stimulation of existing small and medium entrepreneurship subjects. Supporting areas that provide them with discounts (tax, customs, price regulation, subsidies and subsidies), and stimulating steps.
- Support for newly elected small and medium-sized enterprises in selecting their activities. Applying certain concessions on various sectors of economy (agriculture, light industry, tourism, trade, hotel-restaurant, etc.), specification of main directions in small and medium-sized enterprises activities. This will allow SMEs to evaluate their potential capacities and identify the progressive aspects of their field of activity.

- Considering the development of other sectors of the economy and their accountability for small and medium-sized enterprises. While such programs are not directly focused on the activities of small and medium-sized enterprises, it also creates conditions for their development and provides opportunities;
- Implement state support measures to support innovation activities;
- Collaboration between small and medium-sized enterprises subjects, including supportive measures for implementing measures to expand corporate co-operation between small and medium-sized enterprises, small and medium-sized enterprises and government agencies.

They have concluded that shortcomings in the taxation mechanism in the development of small and medium-sized enterprises will lead to problems. These include:

- The weakness of the taxation system for tax liabilities of small and medium-sized enterprises, which is higher than in terms of number;
- small and medium-sized enterprises faster than non-formal economy relative to large entrepreneurs;
- Increasing administration costs;
- Faster tax burden on small and medium-sized enterprises, etc.

According to the tax legislation operating in our country, the majority of small and medium-sized enterprises used a simplified tax system, and their turnover was chosen as the key criterion. However, world practice gives grounds to say that it is not a simplified tax, but rather a "presumptve" hypothetical taxation system (the main characteristic of this tax method is that the tax base is not for the taxpayer, but for the field of activity and its character). It is important to take into account the following in order to undertake a number of measures aimed at solving these problems, and to further improve the taxation mechanism. Recommended:

- Establish separate committees dealing with the economic problems of small and medium-sized enterprises, clarify the criteria arising from international practice (including tax rates, tax burden, tax administration);
- Identify small and medium-sized enterprises identification criteria; - In the course of tax policy, the stimulating function should be considered as basic and the structure of tax incurred should be analyzed;
- Establish a separate monitoring and control system to ensure the rights and protection of small and medium-sized enterprises, etc. In order to support entrepreneurship in the Tax Code in 2019

The changes are mainly based on the simplified tax rate of two per cent in the entire territory of the country, retail sales and catering, non-cash payments in the retail trade and catering areas, suspension of cash outflow from the bank account and VAT deposit account during administrative complaint. During these changes, the support for entrepreneurship in micro and small businesses is particularly important, mainly due to the fact that starting from 2019 the fixed capital depreciation rates will be applied to fixed assets of micro and small business entities; Small businesses will be subject to additional tax breaks if they carry a transparent balloon; Small and Medium Entrepreneurship cluster companies will be exempt from profits, land and property tax for a period of seven years from the date they are registered in the Small and Medium Entrepreneurship Register; Imported equipment, technological equipment and facilities for production and processing by the companies included in the Small and Medium Entrepreneurship cluster will be exempt from VAT for 7 years; The part of entrepreneurial subjects, who are members of the Small and Medium Entrepreneurship cluster, is directed to capital expenditures - 7 years will be exempt from income tax; The proposed breakthroughs for micro-entrepreneurship subjects include tax exemption of 75% of profits and profits earned on

entrepreneurial activity. Individual entrepreneurs and legal entities subject to micro-entrepreneurship are exempt from property tax. Subjects of micro and small entrepreneurship who have obtained the Startap Certificate from the date of receipt of the relevant certificate will be exempt from income tax and income tax for a period of three years.

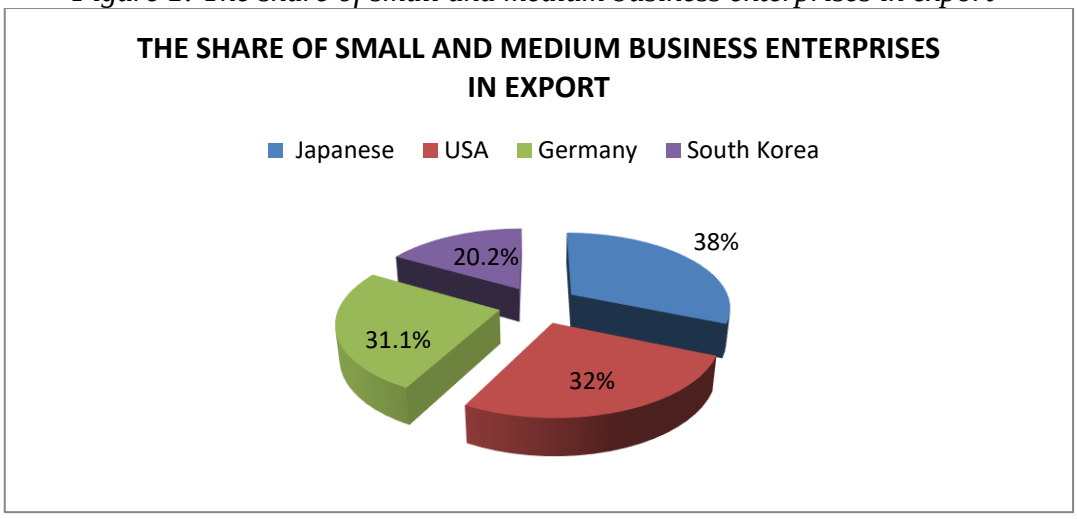
4. INTERNATIONAL EXPERIENCE IN ENSURING THE STABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES

Small and Medium Enterprise is one of the leading economies in many developed and emerging economies. There is no single practice in the world practice regarding the classification and indicators of small and medium-sized businesses in the legislation. However, the single classification within the European Union is valid. Thus, enterprises whose annual turnover does not exceed 10 million euros and employees with a number of employees are 10-49, small enterprises, whose annual turnover does not exceed 50 million euros and the number of employees is 50-249. In large countries such as the United States and China, small enterprise enterprises are enterprises with 100 or 1000 people or fewer employees. According to the classification of Turkey, the number of enterprises with annual turnover of 5 million liras and the number of employees not exceeding 50 and annual turnover of 25 million liras and the number of employees with 50-150 employees are considered as small and medium enterprises. Small and medium-sized enterprises also play an important role in the economic activity within the country. First of all, it should be noted that according to the number of Small and Medium Entrepreneurship per 1,000 people, Eastern Europe countries such as Estonia and the Czech Republic take first place. In these countries, the number of Small and Medium Entrepreneurship per thousand people is 71 and 88, respectively. The high development of small and medium enterprises in these countries is also closely linked to the privatization policy implemented during transition to a market economy. As the small-scale privatization policy carried out in these countries is mainly carried out on public catering services and small-scale enterprises, as well as the highest possible participation of the population, the number of Small and Medium Entrepreneurship is quite high Italy and Malta are ahead of the European countries due to their gross domestic product. Here, 80% and 77% of the additional value of the Small and Medium Entrepreneurship subjects. In addition, in many European countries this figure is also higher than 50% of GDP. By contrast, for Russia it is less than a quarter of GDP. This is due to the weakness of the small and medium-sized business sector. Additionally, about 50% of the Czech Republic, Estonia, Italy, Malta and Portugal are employed by such enterprises. In France, Slovakia and Finland, this figure is smaller, which is due to the fact that the number of Small and Medium Entrepreneurship enterprises is less than that of other countries.The main areas of small and medium-sized businesses are also different across countries. Thus, wholesale and retail trade services play a leading role in the EU's role in the GDP among small and medium-sized enterprises. About 22% of GDP is provided by this area of activity. Accordingly, this sector has the largest share in small and medium-sized employment. Overall, 26% of small and medium-sized enterprises are provided by businesses. Other important areas are also service areas. Construction, housing and food services as well as administrative services make up 23% and 30% of the value added and employment respectively. Interestingly, the processing industry is ranked second among the economic activities of small and medium-sized businesses. Given the dependence of this area on large scale capital investments and economy of scale, small and medium-sized businesses are likely to overcome these issues. Small and Medium Entrepreneurship in Turkey is also the key point of the economy. 99.9% of businesses, 76% of employment, 53% of total wage, 53.3% of total added value and 53.7% of total investments in material goods are provided by small and medium-sized enterprises. The most active small and medium-sized enterprise in Turkey is retail and wholesale trade, as well as Transport and Warehouse and Processing Industry.

The commercialization of commerce, both the empiricality of the manufacturing industry and the high level of technology, mean that Small and Medium Entrepreneurship contribution to employment and the ability to create high value. In addition, the share of Small and Medium Entrepreneurship in foreign economic activity is noticeably wider. Thus, 68% of Turkey's total exports in 2016 were provided by small and medium-sized businesses. 32% of imports fell to these companies. In the experience of foreign countries, many measures are being taken to promote Small and Medium Entrepreneurship activities. The most important is fiscal and financial incentives. Thus, measures to reduce the number of taxes imposed on Small and Medium Entrepreneurship and the introduction of a simplified single tax rate in some countries create favorable conditions for the activities of these entities. In addition, increasing credit opportunities, especially in European countries, providing state-guaranteed loans, expanding venture capital and creating business-angels are financially supported by Small and Medium Entrepreneurship. Providing information support to other stimulants, including the creation of business incubators and economic clusters to strengthen the relationships of small and medium-sized enterprises with large entrepreneurship, and expanding export opportunities with support for small businesses' export activities. Compared with international experience, small and medium-sized enterprises in Azerbaijan are relatively new and are not yet fully developed. Although the majority of enterprises operating in the country are small and medium-sized businesses (92%), this sector's gross domestic product (GDP) and share of employment are very limited. Thus, the share of goods and services generated by small and medium-sized enterprises in GDP is only 3%, and their share in employment is only 8%. For comparison, it should be noted that the share of small entrepreneurship in employment in Georgia is 43% and in Ukraine 58%. Most small entrepreneurship entities in the country are Baku (56.7%), the second and third largest regions of these enterprises are Aran (12.7%) and Absheron (7%) economic regions. As regards economic activities, most enterprises are engaged in trade and transport services (32%), transport and storage (10.3%), and 17.3% in the agricultural sector. Small and medium enterprises have an indispensable role in ensuring employment in the country. This sector is also one of the main anti-crisis methods of the states. Because the bankruptcy of large enterprises during the crisis deepens the crisis in the country's economy. However, such risks are even lower in small and medium-sized enterprises. Experts believe that if large companies determine the level of scientific and technical progress and production potential in the country, small and medium-sized enterprises will provide socio-economic stability and development of the country. Most of these businesses form a balance in the economy. From the aforementioned, it can be concluded that the development of small and medium-sized businesses in Azerbaijan is still not fully satisfactory compared with world practice, which shows its influence in the market. They also point to the fact that the development of small and medium-sized businesses in the country still needs to be settled and more progressive measures should be taken. Even though important steps have already been taken in this direction, it would be expedient to apply additional incentive mechanisms throughout the country, taking advantage of international experience.

Figure following on the next page

Figure 1: The share of small and medium business enterprises in export

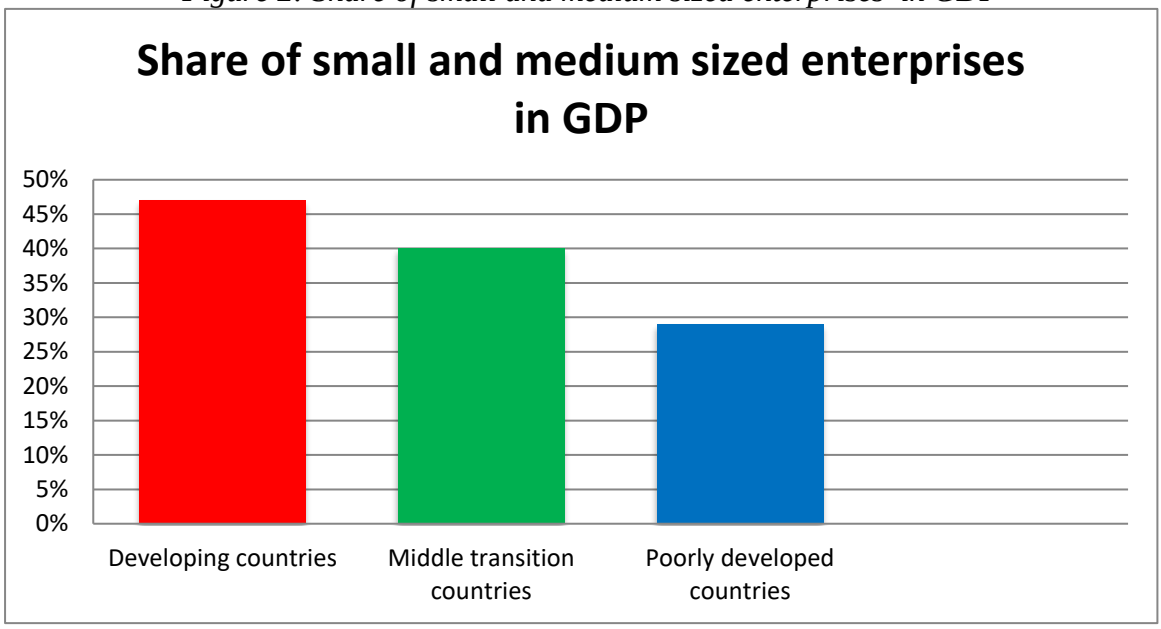


Source: The table was prepared by the author on the basis of http://www.kreditbusiness.ru

It is no coincidence that state-funded funds are created to support the development of small and medium-sized businesses in each of the developed countries. In these countries, 99% of existing enterprises are small and medium enterprises. Their share in employment is 50-70%. The share of production in the GDP is 50-60 percent. The biggest role of small and medium-sized businesses in the economy is the protection of competition. It is possible to strengthen the competitive environment in the country by developing this sector. Another important contribution to this sector of the economy is the creation of new jobs. They can produce more production and product diversity with less investment. Also, it is possible to create job opportunities with less investment costs. They can adapt to the changes and variations in demand more easily. Small and medium enterprises have an indispensable role in ensuring employment in the country. This sector is also one of the main anti-crisis methods of the states. Because the bankruptcy of large enterprises during the crisis deepens the crisis in the country's economy. However, such risks are even lower in small and medium-sized enterprises. Experts believe that if large companies determine the level of scientific and technical progress and production potential in the country, small and medium-sized enterprises will provide socio-economic stability and development of the country. Most of these businesses form a balance in the economy.

Figure following on the next page

Figure 2: Share of small and medium sized enterprises in GDP



Source: Small and Medium-Sized Business: Foreign Development Experience

5. CONCLUSION

Development of small and medium-sized businesses in our country is reflected as one of the main goals in the 2020 Development Outlook Concept. Significant steps are taken by the state in the development and support of this sector. The announcement of 2014 as the "Year of Industry" by the country's president was accompanied by the ongoing work in this area and the implementation of serious measures to open new businesses. Nevertheless, while the share of small and medium businesses in developed countries is higher than 50 percent in developed countries, the share of small and medium-sized enterprises in both exports and in Azerbaijan is relatively low. Experts link this with Azerbaijan as an oil country. Therefore, the share of oil in GDP is quite high. Given the fact that more oil companies operate in the oil sector, the share of large-scale enterprises in GDP is higher. The total amount of loans allocated to entrepreneurs by the National Entrepreneurship Support Fund is shown in the scheme below. Most banks are not interested in granting long-term loans to entrepreneurs, although they are encouraged by providing preferential loans to small and medium-sized businesses in our country. This is due to the fact that the amount of business loans is large and that they are transferred to the long-term. This is even more risky for banks than consumer loans. The percentage of business loans issued by banks is also quite high. Last year, interest rates of business loans in the country were at least 11 percent. That is why entrepreneurship subjects suffer from lack of funds and can not establish business. Owners, who receive cash, have a higher interest rate and are reluctant to repay the loan. Given the seriousness of the issue, President Ilham Aliyev called on banks to support the real sector at a meeting of the Cabinet of Ministers last year. "The advantage should be given to the real sector, not consumer loans. The main activity of the banking sector should be directed to creation of new enterprises, opening of jobs. What amount of funds are allocated by Azerbaijani banks, in which projects, in which regions or in Baku? This should be the case. I, the public, should see that the banking sector does not just pocket its own pockets, but also actively works for the development of the country ". According to the data, interest rates of business loans will be one-digit in next years. This will give impetus to the development of small and medium enterprises. There are also banks in the country aimed at stimulating small and medium entrepreneurship.

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ROLE OF THE SOCIAL PROTECTION SYSTEM OF POPULATION IN ENSURING NATIONAL ECONOMIC INTERESTS

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ABSTRACT

This work indicates that social protection is a system of social and legal measures which provides all the citizens with a certain standard of living and is aimed at supporting individual groups. The improvement of social welfare of low-income population is always in the focus of the state. Recently important steps have been taken for improving the living standard of the population that need a special social protection, and in the field of their active integration into society. Attraction people of this category to numerous social prodrams has successfully been realized. A lot of work has been done for improving social and living conditions and the social payments allocated to this category people were regularly increased from year to year.It was noted that self-employment measures have particular importance in strengthening the socially sensitive part of the population, social protection of low-income families and increasing living standards, passing from traditional "passive" policy measures to "active" employment policies.As a result of the measures envisaged in the Strategic Roadmap on the sectors of the economy, the share of informal employment in the economy will be reduced, foreign investment in the non-oil sector and exports in the non-oil sector will be increased, additional workplaces inproduction and tourism sector will be created, and small and medium-sized businesses will grow.Specifically, it encourages women and the youth for social-public programs in rural areas and businessmen to participate in entrepreneurship training programs in vocational education institutions, increases dynamics of salaries for years and expands employment opportunities in non-agricultural areas, causes the timely implementation of the Strategic Roadmap to contribute to the implementation of the targets set.

Keywords*: Labor pensions, Social assistance, Self-employment measures, Social protection, Unemployment insurance*

1. INTRODUCTION

Restructuring the current social protection system in line with the market economy environment, as well as implementing reforms in the pension system based on the international norms and experience of the developed countries has been identified as one of the strategic direction of social policy. At that time, it was decided to start the development of the pension system according to the requirements of new circumstances after the creation of the solid economic basis for the changes and selection of an appropriate demographic time. And, meanwhile, previous solidarity and public security system have to be remained in place, though this task was very challenging. Those directions that have been wisely determined by the nationwide leader of the Azerbaijani people, Heydar Aliyev, made drastic measures aimed at improvement of living conditions and pension provision of the population, accompanied with annual increase in pension and benefit payments, which led to serious changes in this field.

2. THE MAIN DIRECTIONS OF SOCIAL PROTECTION SYSTEM

Social protection is a measure system of economic, social and legal advocacy for all citizens, providing a certain standard of living and specific support for individual groups. The state social protection system of the population implements measures to ensure the access to life and the level of living, employment and normal living conditions. Social security is a system of social benefits satisfying the material needs of the individual and his family in a broader sense (Figure

1). In that sense, the social security system coincides with the actual fact and personality rights. In a narrow sense, it is the state's policy to provide social security, in a particularly difficult situation, to ensure, at least, the decent living conditions of populations that can't live without help through administrative way. Social protection is one of the important functions of the state to ensure the basic social rights of the state on the basis of international and national norms. The laws of a democratic state include the right to employment, performance-based remuneration, recreation, old-age benefits, sickness benefits, unemployment benefits, benefits for loss of breadwinner, childcare benefits, education and health benefits, social security for cultural life, right to housing. The right to social protection is based on organizational and financial-economic frameworks. The legal basis establishes socially-oriented legislation on the specific areas; organizational governance involves the existence of a social bloc at existing levels and at appropriate institutions; mobilization of financial and economic sources of social protection. Here taxes paid to the state budget and contributions to relevant social funds plays an important role. The state in this or other form implements a special initiative in the sphere of social protection: charity activities, social expenditures of enterprises, firms and individuals can be cited as an example. Social assistance systems are divided into general and category-based help systems. There are difficulties in determining the wealth of people in some countries, which comes from the inefficient taxation of those countries. There is no effort to facilitate the establishment of general social assistance systems in these countries, but rather to provide categories of social assistance to groups of persons who are unable to conceal their income. There are tendencies to follow. The basic principle is that citizens living in the country are provided with social protection systems that can benefit from social benefits irrespective of their nationality. The three main features of the social welfare system in Western Europe are: 1) the existence of an official poverty line, (2) the status of individuals with incomes below the poverty line, and (3) an attempt to eliminate the difference between the poverty line and the actual income. This system can also be called a "Secured minimum income" (SMI) system. In the former post-Soviet countries, assistance schemes vary from SMI to a number of aspects. It is not enough for the amount of revenue to be lower than the poverty line for social assistance, and other criteria should be taken as a basis. Factors such as the family's ability to earn money, the loss of family head, the disabled, and the elderly can play a key role here. Social assistance is presumed to be a temporary measure and is primarily natural. The social welfare system does not aim to fulfill the gap between the limits of poverty and the actual income.

Figure following on the next page

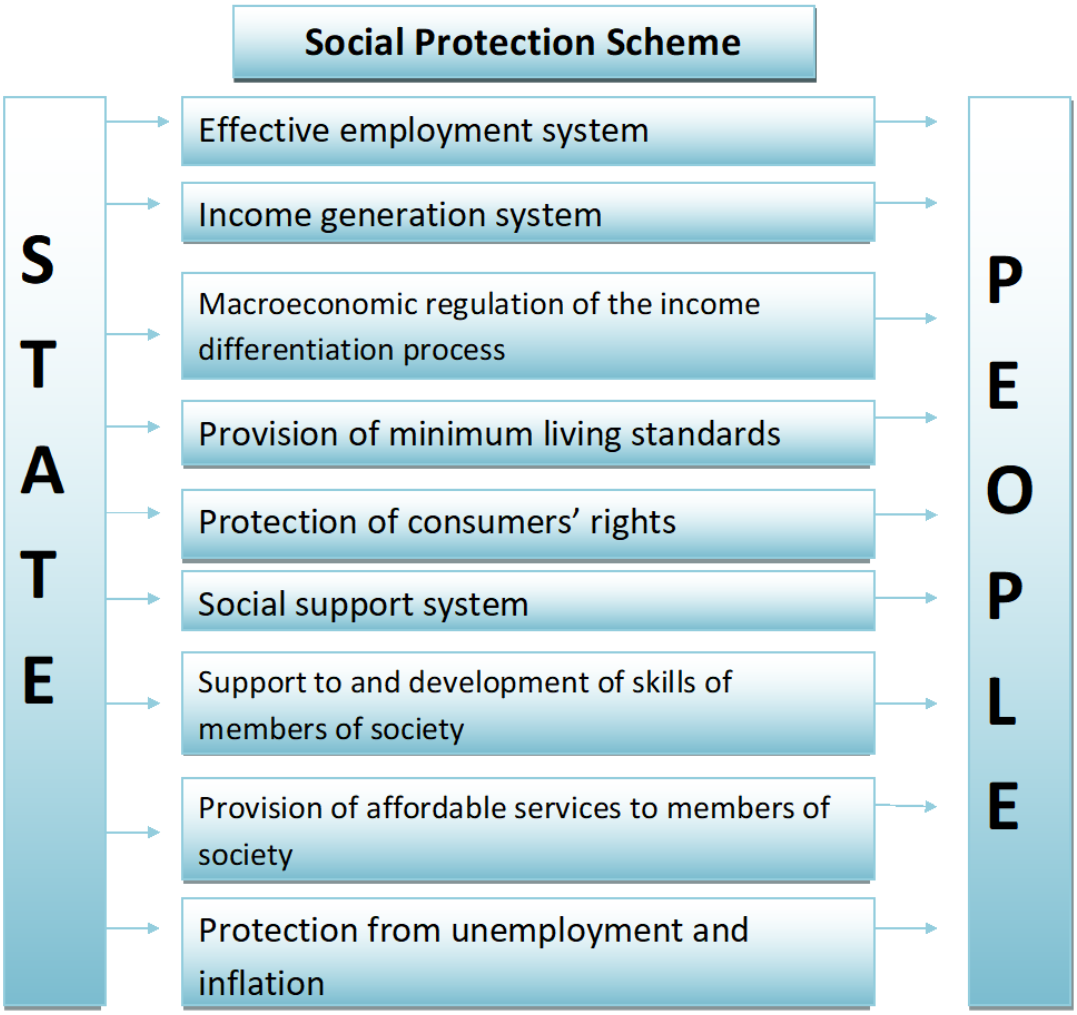


Figure 1: Great Economic Encyclopedia (Samadzada, 2012, p.537)

They used a "Revenue Amount Check" (RAC) system to get out of the situation with social assistance. None of the characteristics inherent to the SMIsystem is in the RAC system. Firstly, the actual information about the poverty line is not officially announced. Secondly, the fact that the amount of income is below the poverty line is not a sufficient condition for achieving social benefits. The third is that social assistance services do not take the necessary measures to cover the gap between the poverty line and the actual income (Mikayilova, 2006, p. 34). As we have noted, the main objective of the social assistance system is to improve the co-ordination of this assistance. It can be achieved in two ways. The first way is to switch from SMI to RAC. The second system is theoretically to ensure that the social assistance is accurate. The other way is to capture the RAC system, but in this case the address of the assistance needs to be improved. In order to reduce the number of those who are able to get social assistance, their income needs to be estimated. Social assistance should be the last tool that should be provided to those persons who are beyond the control of the social security system. For this purpose, poverty indicators such as the number of children in the family, age of the head of the family, and unemployment should be investigated and should not allow those who have important economic transfers to move.When determining the targeted referral of social assistance, the following can be avoided.

- excessive assistance, as in some cases the payments to the poor may exceed the amount required to reach the poverty line;
- entry falt. Paymants can be paid to people who are not poor, so that they do not need social assistance.

Another important issue of addressing social assistance is the degree to which the displacement pattern is found betveen the level of social assistance and earnings. Frequency of decline in social assistance in most Western European countries reaches 100 per cent. But in post-soviet countries, this problem is deepened by two factors:

- the slightest difference between the minimum wage and the poverty line that causes the person to start looking for a job does not allow to increase family income to the extent that they are less likely to fall below the 100% threshold of social assistance;
- in most countries, the payment of several types of assistance is suspended after a certain amount of revenue is obtained.

The targeted social assistance problem occurs due to error of high interest rates in the above-mentioned systems. The main issue here is identifing poors, namely the exact definition of the amount of income. This is a consequence of the fact that the majority of cash revenues are derived from illegal activities in the shadow sector, and these revenues are often hidden from taxpayers. Observations show that about 10-12 percent of the population may be 10 percent lower or lower than the guaranteed miniin revenue. Those who do not need social assistance within these individuals can also receive benefits. It is not difficult to identify the poor in typically poor population groups. In other families where poverty is superior, the situation is different. For example, it is difficult to determine who is entitled to the right to receive social assistance in rural areas composed of multi-child families. Because in most of these families the number of children is 4, 5 and more, and one of the family heads does not work. Social assistance should be given to a person who has the right to receive this assistance without being dependent on his / her family background. Only in an exceptional hall, social assistance can be viewed as a kind of assistance to families.

2.1. Pension and Social Insurance System in the Republic of Azerbaijan

At present, pensions in Azerbaijan are governed by the laws of the Republic of Azerbaijan "On Pension Provision of Citizens", "On Labor Penalty" and "On Retirement of Military Servants". These laws regulate the retirement benefits of the country's citizens when they are aging, fully or partially, and their family heads (Aliyev F., Aliyev T., 2011, p.231). In order to improve the system of pension provision in the “Concept of Reforming the Pension System in the Republic of Azerbaijan in 2014-2020” and to strengthen the financial sustainability of the system starting from 2017, the implementation of relevant measures has been started, Social Protection Fund has taken steps to identify the obligation of the state budget, and the basic part of the labor pensions, known as the basic public obligation, has been abolished, and the amount of newly established pensions are calculated on the basis of the retirement pension fund and the system has been created to allow it to be identified. Improvement of the structure of the insurance premium, the payment of compulsory state social insurance premiums to the minimum wage (ownership of agricultural land, individual entrepreneurship and labor activity) the implementation of some of the key issues in 2019 will be considered as the implementation of the norms. According to Article 29.1 of the Law of the Republic of Azerbaijan "On Labor Pensions", the insurance part of the labor pension and the penalty capital registered in the insurance part of the individual account shall be paid once a year for the relevant executive officer of the average monthly nominal wage is indexed in accordance with the decision of the relevant executive body in accordance with the annual rate of increase determined by the authorative body. According to information provided by the Ministry of Economy of the Republic of Azerbaijan, average monthly nominal wage in 2018 is projected to increase by 5.7%. After the amendment to the legislation, the base and insurance part of the penalty was considered an integral part of insurance, but only those amendments that were determined by the legislation were distinguished.

The size of the pensions' costs depends on a number of factors - the country's physical condition, health, age and living standards, and their accumulated insurance coverage, average monthly pension, salary wage in the country, requirements of relevant legislation and so on. depends on. By taking these parameters into account, the costs of paying pensions are set at certain levels. A number of changes made in the legislation also contributed to the growth of the total cost, which necessitates the proper forecasting of the costs of pensions in terms of providing social protection to pensioners (Indexation of Labor Pensions, 2017). The size of the pensions' costs depends on a number of factors - the country's demographic condition, health, age and living standards, and their accumulated insurance coverage, average monthly pension, salary in the country, requirements of relevant legislation and so on. depends on. By taking these parameters into account, the costs of paying pensions are set at certain levels. A number of changes made in the legislation also contributed to the growth of the total cost, which necessitates the proper forecasting of the costs of pensions in terms of providing social protection to pensioners. According to the Law of the Republic of Azerbaijan "On the minimum subsistence minimum for the year 2020", it is envisaged that the minimum subsistence level for pensioners will be 149.0 in 2019, which is the average of the average pension amounting to 241.0 manat is less than the monthly pension amount.(Article 1, 2018) It is projected that the average monthly pension will be 92.0 manat or 61.7% higher than the pensioner's living minimum, or 161.7%. It should be noted that according to the official Internet website of the Federal State Statistics Service of the Russian Federation, this ratio is 153.3% in Russia in 2016 and 160.0% in 2017, according to the Internet website of the Statistics Committee of the Republic of Kazakhstan this proportion is 238.0% in 2017, 180.6% in Ukraine at 01.01.2018 and at the beginning of 2017, 103.9%. in Georgia. The Fiscal Affairs Department of the International Monetary Fund, based on a 2011 research paper titled "Call for State Pension Reforms in Emerging Economies," compared to 14.7% in Italy in 2010, 13.9% in Austria, 13.3%, in France, 12.7% in Portugal, 10.6% in Finland and Germany, 10.0% in Japan, and in 2030, respectively , 12.8%, 14.8%, 13.4%, 13.4%, 12.7%, 11.7% and 9.8% respectively. The proportion of pension payment according to GDP ratio in 2010 was 17.7 percent in Ukraine, 11.3 percent in Poland, 10.6 percent in Hungary, 9.3 percent in Estonia, 9.1 percent in Brazil, and 8.1 percent in Russia, and relatively these indicators will be intended 19,4%, 9,2%, 7,6%, 6,8%, 10,4% və 11,2% in 2030. The decrease is forecasted in EU countries like: Poland, Hungary and Estonia, as well as the increase is forecasted in Ukraine, Brazil and Russia. According to statistical data at the beginning of 2018, the admissibility factor affecting the specific weight of labor pensions in GDP, in other words, increased the share of 65 and older population in the total number of retirees Continued. Thus, this figure was 44.2% at the beginning of 2015, 46.0% at the beginning of 2016, 47.2% at the beginning of 2017 and 49.2 % at the beginning of 2018. The number of population by age group was 597.5 thousand in 01.01.2016, 620.3 thousand in 01.01.2017 and 648.2 thousand people for 01.01.2018. In other words, the increase in the degree of proportion has led to the increase in the population of the age group of 65 and over. Increase in the proportion of coefficients means, on the one hand, that the retirement of labor is higher than the elderly population and on the other hand, the number of pensioners who do not participate in GDP formation. The relative ratio represents the aggregate weight of the aged 65 and over in the general number of pensioners and acts as a factor affecting the ratio of retirement costs to GDP and the fiscal sustainability of the pension system. The decline of this ratio, in other words, the increase in the share of retirees in the total number of retirees without the retirement age is due to less labor activity and lower levels of participation in GDP volumes, as a minimum, means retirement of Citizens who get (CSSIF). According to the information provided by the Fund, the average monthly pension is expected to be at the level of 226.8 manat at the end of 2018, and in 2019 it is forecasted at 241.0 manats. Thus, the average monthly pension rate will increase by 8.7% compared to 2017 at the end of the current year, and it will

increase 6.3% in 2019. Replacement rate is the ratio of average monthly pension to the average monthly salary of both the 1970-1990 and the 1990-2010, both in countries with developed and emerging economies, and this factor played a key role in developing countries during the 1970-1990 period and in emerging economies in the 1990-2010 period. The average monthly salary rate is higher than the average monthly wage, with the fact that the paid (CSSIF) for a certain period of time is gradually insufficient to meet the pensions, can only weaken the fiscal stability of the system. The pointed ratio was 38.0% in 2015, 38.9% in 2016 and 39.5% in 2017. It is forecasted that this ratio will be 40.6% in 2018 and 37.6% in 2019. The decline in the substitution rate in the backdrop of the increase in pensions is due to an over-monthly average pension rate of 6.3% in average monthly salary growth of 14.9% in 2019. The percentage of labor pensions paid by age and loss of family head still remains behind the weight of the world practice, indicating the specific weight of labor pensions, on the contrary, prevails over the world practice of weighting the increase in payments on social insurance or payment bases, the right of the citizen to pay for it means that they will receive a larger amount of retirement benefits. The number of pensioners working in recent years have had an upsurge in dynamics, while the number of non-working pensioners has diminished in dynamics, which means that the penalties received by pensioners, working with their salaries, it is advisable to do so. It is therefore more appropriate to distribute labor between the citizens as labor pensions and wages, with the fact that younger employees make appropriate payments in exchange for their salaries and wages. In contrary to maternity leave and childbirth benefits as well as childbirth, there was a decline in the number of births in the country, which affected to the amount of child birth, and the predictive rate was 84.9% in 2017. The payments were 70.0% for the childbirth. By 2017, the expectations for chlid care up to the age of 3 were fulfilled by 80.9%, while expenses for funeral were 91.1%. The level of compensation for Compulsory State Social Insurance Fee (CSSIF) depends on the level of wages of the insured, work experience and health status, birth and death rates in the country. Some of these factors are objective, based on probabilities and coincidences. Therefore, difficulties may arise in predicting the actual costs. Positive conclusions can be drawn to better predict costs, taking into account the previous experience and performance indicators, other relevant statistical factors, as well as the legislative changes on the factors affecting the development of allowances. Strategic Road Maps on key sectors of the economy, approved by the Presidential Decree No.1138 dated December 6, 2016, have special importance in ensuring the social protection of people from unemployment. The Strategic Roadmap on the National Economic Outlook of the Republic of Azerbaijan envisages the employment of more than 450,000 people by 2025. As the President of the Republic of Azerbaijan, Mr. Ilham Aliyev, noted that the current unemployment rate in our country is only 5% according to the implemented measures in the country. As a result of the implemented measures envisaged in the Strategic Road Map on the sectors of the economy, the share of informal employment in the economy will decrease, the foreign investments directed to the non-oil sector, the increase in exports on the non-oil sector, the development of small and medium-sized businesses will be achieved. Specifically, it encourages women's and youth's social life programs in rural areas and promotes entrepreneurs to train entrepreneurial education in vocational education institutions, increase in salaries for years, undertaking measures to improve employment opportunities in other areas, timely implementation of relevant measures and results of the analysis will create conditions for implementation of the Strategic Road Map (Strategic Roadmap for the National Economy Perspectives of the Republic of Azerbaijan, 2016). The creation of the insurance system from unemployment have been specially noted in the Convention No. 88 and the Recommendation 83 of the International Labor Organization, ratified by the Republic of Azerbaijan. Thus, according to Article 6 of the ILO Convention on Employment Service No 88, the employment of vulnerable segments it was emphasized that it cooperated with insurance agencies to discontinue unemployment for the purpose of carrying

out measures for improvement the situation of the unemployed. Recommendation № 83 of the Article 8 of the "Organization of Employment Service", provides co-operation with service providers for labor inspection and unemployment insurance and services dealing with unemployment. It should be noted that, in order to solve employment problems of population, at present, the relevant funds operate in 72 countries of the world. In addition, according to Article 19 of the Law of the Republic of Azerbaijan "On Unemployment Insurance", insurance payments for unemployment, professional training and additional education, organization of paid public works, labor compensation and labor exchanges, helping them to self-employment, with the insurers working together with the insured, to pay the wages of the employed, the employment of citizens who are in need of social protection and who have difficulty finding employment establishment of jobs and expedited businesses and the implementation of targeted programs, the realization of other active arrangements for the exercise of labor law insurance funds (Measures financed by the insurance assets, 2018). Unlike social insurance premiums, unemployment insurance premiums are not covered by all insurance fees. The Law of the Republic of Azerbaijan "On Unemployment Insurance" does not pay insurance premiums for itself because it does not have labor compensation fund, even though a natural person does not pay insurance premiums on the same person when they sign a labor contract with any person. In contrast, Article 8 of the Law of the Republic of Azerbaijan "On Social Insurance" states that it is the insured person who makes social insurance for himself or someone else (Participants of social insurance, 1997). Insurance premiums paid in accordance with the Article 21 of the Law of the Republic of Azerbaijan "On insurance against unemployment", according to the administrative provisions stipulated by the Code of the Republic of Azerbaijan on violation of the requirements of the Law administrative penalties imposed by the Ministry of Labor and Social Protection of Population of the Republic of Azerbaijan, grants, donations and grants provided under the Grant Law of the Republic of Azerbaijan, bank loans, and by the Ministry of Labor and Social Protection of Population of the Republic of Azerbaijan Other sources were also mentioned in the Fund's sources of insurance.

2.1.1. Determining the self-employment of the population as an active employment measure

According to statistical data, in the first 9 months of 2018, the State Employment Service of the Ministry of Labor and Social Protection received 1923 vocational training and additional education, 865 paid work, 32 fairs were held in 32 cities and regions and 2230 unemployed and job seekers are provided with jobs. Over 79.7 thousand young people were provided with advice on vocational and occupational orientation of employers and job placement counseling in accordance with the requirements of the labor market during the recruitment campaigns organized by the state employment agencies during the reporting period.(Employment, 2018)

The introduction of self-employment as a means of active employment in our country was initiated on the basis of the Decree No 194 of the President of the Republic of Azerbaijan dated April 7, 2016 "On Additional Measures to Ensure Population's Self-Determination". Self-employed measures include the strengthening of the socially sensitive part of the population, the strengthening of the social welfare of low-income families and the improvement of their living standards, the "passive" (provision of allowances and grants) to the "active" occupational policy measures (to ensure the employment of socially vulnerable groups of population in the labor market) is of particular importance. Therefore, the costs of self-employment activities are at the core of the Fund's largest expenditure. Thus, the total expenditure was 40.2% of all expenditures in the Fund's 2018 forecast and by 2019 this figure was 50.4%. By October 1, 2018, more than 7.3 thousand people were enrolled in the program training courses, with graduates of these courses finishing their business plans to acquire goods and services for successful small business The provision has been commenced. The normative-legal basis for the compilation and application of professional standards in the "Strategic Road Course on

Vocational Education and Training in the Republic of Azerbaijan", approved by the Decree of the President of the Republic of Azerbaijan dated December 6, 2016 the development, approval and promotion of proposals, identification of the highest quality labor market requirements - defining the knowledge and skills available to businesses and social workers together with its partners it is envisaged to develop professional standards for priority sectors (Priority 3.1., 2016. pp. 85-88). The Strategic Road Map envisages setting up public, private and international funding sources to ensure future development of the vocational education system. As the expected outcome and outcome indicator, vocational standards and training programs have been identified to increase the employment level of vocational education institutions and provide qualitative personnel training. As a result of the increase in labor productivity and employment opportunities, it is forecasted that the real GDP will have a direct impact on the amount of AZN 1 million

3. CONSULUSION

The concept envisages improving the insurance premium structure, improving the insurance norms by paying compulsory state social insurance premiums to the minimum wage (persons using agricultural land in their possession, individual entrepreneurship and labor activities) 2019 It is planned to implement measures in the year; It is envisaged that the tax authorities will control the timely and full payment of social insurance premiums and payments from 2019; Most retiree pensioners, who retired earlier in the past, have been able to cover approximately half of their length of service at 01.01.1992, as well as additions to the pension legislation It is possible to note that the liabilities of the state budget are much higher; The number of retirees working in recent years has had an upsurge in dynamics and the declining dynamics of non-working penetrators; Decrease in birth rates is due to the number of beneficiaries who receive social benefits depending on the amount of benefits and non-working capital by influencing the number of those receiving social benefits at the expense of the state budget, and the number of beneficiaries overcrowded; Here it is shown that unemployed and job seekers are involved in active employment measures and that they are not exploited financially by their current financial capabilities and considered as valid.

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THE IMPACT OF FDI ON ENVIROMENTAL DEGRADATION IN AZERBAIJAN

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ABSTRACT

World is struggling with the upcoming threats of CO_2 emissions, that is why, in order to achieve global environmental sustainability in the greenhouse gas emissions, several countries in 1997 agreed on Kyoto protocol which imposes some obligations on developed nations in the reduction of greenhouse gas emissions. The growing trend of CO_2 emissions is not only the case for developed nations, indeed, in the last decade emerging economies are capturing large scale of emissions and becoming much more hazardous for global warming. Especially, in developing economies foreign direct investments are dominant in polluting industries. Economic growth and FDI from this perspective, are causing CO_2 emissions to augment, if governments and industries are willingness in the alleviation of pollution. Thus, in this paper we have studied the impacts of FDI and economic growth on the Environmental degradation, proxied by consumption based CO_2 emissions for Azerbaijan country case. For this purpose, co-integration techniques were employed to the time series data over the period of 1996-2013. Cointegration test concluded that there is a long-run co-movement among the variables. Estimation results show that FDI and economic growth have positive and statistically significant impact on CO_2 emissions in the long-run. The findings of the study can be used by policymakers in making adequate decisions in related environmental degradation-FDI-economic growth circumstances.

Keywords: *Azerbaijan, CO2 emissions, co-integration, economic growth, FDI*

1. INTRODUCTION

Foreign Direct Investments (FDI) has remarkable positive impacts on economic growth and development in many nations in the last half-century. However, this progressive economic performance entailed some negative externalities. Environmental degradation is perceived among the most influenced. As a consequence of economic growth, increasing consumption of energy causes to greenhouse gas (CHG) emissions, which is one of the main actors in the global warming. According to the World Bank data (2018), Carbon-dioxide (CO_2) is considered the biggest pollutant being responsible for 68% of all greenhouse gas emissions in 2012.

Nations are struggling with the upcoming threats of CO_2 emissions, and in order to achieve global environmental sustainability in the greenhouse gas emissions, some countries in 1997 agreed on Kyoto protocol, which imposes some obligations on developed nations in the reduction of greenhouse gas emissions. The growing trend of CO_2 emissions is not only the threat for developed nations, indeed, in the last decade emerging economies are capturing large scale of emissions and becoming much more hazardous for global warming (Winkler et al., 2002). In this empirical study, we have analyzed the impacts of FDI and economic growth on CO_2 emissions for Azerbaijan country case, which is abundant by its oil and gas resources, and one of the fastest growing economies of last decade. The dominant source of this remarkable economic growth is its crude oil and gas extractions, that pumping foreign currency to the economy and attracting foreign investors. The average annual economic growth of the economy in the last 15 years is about 5% (World Bank data, 2018). In 2017, the share of fuel exports in the total merchandise exports was 90.1%, which indicates the strong dependency of economy from oil and gas revenues (WB data, 2018). After signing several contracts with 41 oil companies with 19 countries since 1994, and after the completion of construction Baku-Tbilisi-Ceyhan pipeline in 2005 Azerbaijan crude oil had wide access to world market. That is to say, during the period of 1996-2017, FDI increased from $627 million to $2.87 billion, and had its pick $5.29 billion in 2012 (WB data, 2018). There were many studies devoted to the impacts of FDI and economic growth on CO_2 emissions for different countries, where the findings vary across countries. Nevertheless, to the best of our knowledge, it is the first individual study for Azerbaijan country case, which examines the effect of FDI on CO2 emissions. In order to fill this gap, the aim of this research is to assess the influence of foreign direct investments and economic growth on CO_2 emissions, and to see the effectiveness and necessity of government's anti-pollution policies. The related empirical studies are reviewed in the section 2. In the section 3, we presented the methodology and data employed, with following its results in the section 4. The outcomes and policy recommendations are discussed in the section 5.

2. LITERATURE REVIEW

There is a broad range of studies conducted in the last two decades, which studied the nexus of environmental degradation, FDI and income (GDP). The relationship mainly investigated for the group of countries and as well as for the individual country cases. In this section we reviewed some papers studied the CO2 emissions-FDI nexus. China as one of the largest FDI recipient in the world, attracted remarkable amount of studies related to its environmental effects. Liu et al. (2017) analyzed the spatial environmental consequences of FDI in 112 Chinese cities employing Simultaneous Equations Model (SEM) for the period of 2002-2015, and found negative relationship between FDI and environmental pollution. Their study exerts that as more FDI flows to the Chinese economy, as less it degrades the environment. Another analogous paper by Huang et al. (2017) for the 30 Chinese provinces over the period of 2001-2012, demonstrating the significant negative effects of FDI and FDI to GDP ratio on pollution index. The study of Huang et al. (2017) used Spatial Durbin Model in order to look at the regional spillovers of FDI, where the coefficient of total effects of FDI on pollution index was found to be –0.20, suggesting that China's FDI inflows are environmentally friendly, especially, those FDI inflows which are flowed from the OECD member countries. However, there are some investigations (Ren et al, 2014 and Liu et al. 2018) argued about the positive relationship between China's FDI and environmental pollution. By employing GMM estimation model over the period of 2000 to 2010, Ren et al. (2014) found the FDI coefficient to be 0.24. Shahbaz et al. (2018) analyzed the nexus with more data sample of 62 years (1955-2016) for France, found significant positive relationship between FDI and carbon emissions with the coefficient of 0.08. Moreover, Bakhsh et al. (2017) also found significant positive relationship between FDI and CO_2 emissions for Pakistan, by employing SEM model for the period of 1980-2014.

Tang and Tan (2015) for Vietnam case, found that long-run, FDI has significant negative impact on CO_2 emissions with the –0.07 coefficient, although the short-run negative effect of FDI is statistically insignificant. Lau et al. (2014) investigated the relationship for the Malaysian case. The study exerts the long and short-run relationship between FDI and CO_2 emissions with employing cointegration approaches, where they have found significant and positive relationship between FDI and CO_2 emissions with the 0.07 coefficient. Gökmenoğlu and Taspınar (2016) displayed long and short-run positive effects of FDI on Turkey's case, with 0.03 significant positive coefficient. The country specific studies display varying results of FDI on environmental pollution, and it is interesting to look at the nexus on the country group level as well. Rafindadi et al. (2018) studied the environmental impacts of FDI for Gulf Cooperation Council (GCC) countries for 1990-2014, and surprisingly found significant negative relationship. They employed the Pooled Mean Group (PMG) methodology for six GCC countries, and suggesting that 1 percentage increase in FDI inflows to GCC countries will reduce CO_2 emissions by 16 percent. The relationship is also found significantly negative for the 30 OECD countries in the research of Pazienza (2015) for the period of 1981-2005, with the coefficient of –0.09. Income levels are considered in the investigation of Shahbaz et al. (2015), where 99 countries are split into three homogeneous low-middle-high income level groups, for the 1975-2012. In their research, FDI effects on income groups are changing, as in high-income countries, FDI inflows have negative impact on environmental pollution, which shows that foreign investors use good management practices and advanced technology, which alleviates the CO_2 emissions. The result is U-shaped for the middle-income level country groups, while it is positively correlated for the low-income level groups. When it comes to Latin American (LA) countries, the relationship shows significantly positive linkage in the recent research of Sapkota and Bastola (2017). By employing the data of 14 LA countries for the period of 1980-2010, they found 0.04 positive coefficient. The empirical studies are varying across the countries, and do not provide unilateral interpretation related to the environmental impacts of FDI. Although almost all studies recommend advanced technological implementation in reduction of the degradation effects of FDI, some studies (Pazienza, 2015 and Shahbaz et al. 2018) covering the developed countries, who were applying anti-pollution technologies for a long-time may display positive relationship. On the other hand, studies (Rafindadi et al. 2018; Tang and Tan, 2015; Lau et al. 2014) covering the countries which are weak in anti-pollution measures can show negative correlation.

3. DATA AND METHODOLOGY

3.1. Functional Specification and Data

The functional specification used in the current study can be described as follow:

$$lnCO_{2t} = \beta_0 + \beta_1 lnFDI_t + \beta_2 lnGDP_t + \varepsilon_t \quad (1)$$

Where, all the elements of model are in logarithmic forms, and
$CO_{2,t}$ is consumption based Carbon-dioxide emissions in per capita terms,
FDI_t is Foreign direct investment, net inflows (% of GDP),
GDP_t – is Gross Domestic Product in per capita terms, and
ε_t is an error term.

It's important to emphasize that the data in almost all sections of the science is difficult to collect for Azerbaijan. As, the data collection and its proper categorization was significantly weak in Soviet Union period. The availability to obtain the data before 1990s is mostly impossible. Furthermore, the engagement of Azerbaijan in war with Armenia in 1992-1994 years, and having changed government administration several times within these years, also

damaged the data collection process. That is, the majority of data created after the year 1994. For the reasons mentioned above (data availability and reliability), the current study uses time series data for the period of 1996-2013. CO_2 emissions are in million tons of carbon per year, GDP per capita in constant 2010 US$, and FDI is FDI inflows as the share in GDP per capita terms. The data for CO_2 emissions are updated from Peters et al. (2011) and Hasanov et al. (2018). The data for GDP and FDI World Bank database (WB, 2018).

3.2. Econometric methodology

In empirical part first, we tested the variables for unit root, then for the common long-run trend (cointegration), and then estimated the long-run relationship among them. For unit root exercise we employed the Augmented Dickey Fuller (ADF, Dickey and Fuller, 1981) and Phillips-Perron (PP, Phillips and Perron, 1988) tests, while for testing the cointegration relationship the Engle-Granger (Engle and Granger, 1987), and Bounds Testing approach to cointegration (Pesaran et al, 2001) are utilized. The long-run relationship is estimated using two cointegration methods. First, the Bounds Testing Approach to Autoregressive Distributed Lagged (ARDL, Pesaran and Shin, 1999; Pesaran et al, 2001) model is used as a main tool, then the Fully Modified Ordinary Least Squares Method (FMOLS, Saikkonen, 1992 and Stock and Watson, 1993) is employed for the robustness check.

4. EMPIRICAL RESULTS AND DISCUSSION

First, the stationarity properties of the employed variables are tested using ADF and PP unit root tests and the results are given in Table 1.

Table 1: Unit root tests results

Variable	The ADF test				The PP test	
	Level	K	First difference	k	Level	First difference
co₂	-2.84*	0	-6.78***	0	-2.88*	-6.55***
fdi	-1.46	0	-3.32**	0	-1.46	-3.29**
gdp	-0.86	0	-2.67*	0	-0.86	-2.65*

*Notes: ADF and PP denote the Augmented Dickey-Fuller and Phillips-Perron tests respectively. Maximum lag order is set to two and optimal lag order (k) is selected based on Schwarz criterion in the ADF test; ***, ** and * indicate rejection of the null hypotheses at the 1%, 5% and 10% significance levels respectively; The critical values are taken from MacKinnon (1996) for the ADF and PP tests respectively.*

As can be seen from Table 1, all the variables are stationary at first difference, hence we can test them for the cointegration. The Bounds Test and Engle-Granger cointegration test results are provided at the right side of Table 2. Both cointegration tests concluded the existence of the long-run relationship among the variables. Therefore, the long-run relationship is estimated, where the estimation results are given at the left side of the Table 2. The residuals of the model are tested for Gauss-Markov conditions and all the results are in line with the requirements, the model also tested for misspecification and concluded that there is no misspecification problem[1].

Table following on the next page

[1] The results of these tests are not given here due to the space limitation, but are available from the authors upon request.

Table 2: Cointegration and Long-run estimation results

	ARDL	FMOLS	Cointegration Tests			
FDI	0.09	0.10	F-stat	9.12	EG tau-stat	-5.04
	(0.00)	(0.00)	Critical Values			(0.01)
GDP	0.09	0.09	10%	3.70	EG z-stat	-22.47
	(0.00)	(0.00)	5%	4.43		(0.00)
Constant	0.40	0.35	1%	6.27		
	(0.08)	(0.04)				

Notes: F-stat= F-statistics for Bounds Cointegration test based; Critical values=Narayan's (2005) critical values for Bounds test; EG tau-stat=Engle-Granger cointegration tests tau-statistics; EG z-stat=Engle-Granger cointegration tests z-statistics; p-values are in parenthesis.

As was mentioned in the methodology section, the main tool in empirical estimations is ARDL model, the results of which are given in the first column of Table 2. The results of FMOLS method, as a robustness check, are given in the second column of that table. As can be seen from the outcomes of both models are very close to each other either significance or magnitude wise. The coefficients have the expected signs, and are statistically significant. Since the variables are in logarithmic form, the coefficients can be interpreted as elasticities of variables. Based on the ARDL estimation results, we can say that the 1% increase in FDI and GDP results in 0.09% increase in CO_2 emissions. Based on the reviewed literature we can say that our finding of positive impact of FDI on carbon-dioxide emissions are in line with the conclusions of many studies in the case of developing countries. In terms of magnitude, our coefficient is close to the findings of Lau et al. (2014) and Shahbaz et al. (2018).

5. CONCLUSION

The impact of either local or international economic activities on environmental degradation is one of the hot topics of environmental economics since its direct influence on the climate change/global warming problem. One strand of the research devoted to the above-mentioned problem is the impact of foreign direct investment within a certain country on the CO_2 emissions level. In this regard, the current paper investigates the impact of foreign direct investment on CO_2 emissions in Azerbaijani case. The study uses consumption based CO_2 emissions, since it is a more proper proxy to measure the impact of international economic activities. For this purpose, ARDL and FMOLS cointegration techniques were employed over the period of 1996-2013. After testing variables for unit root, the results showed their stationarity at first differenced form. Hence, the variables can be tested for a common long-run trend. The Engle-Granger test and Bounds Testing methods were used to analyze the long-run relationships between the variables. The results indicated that there is a long-run co-movement among the variables. Results of the estimations revealed that FDI and GDP have statistically significant, positive impact on CO_2 emissions. This implies that 1% increase in FDI and GDP will increase CO_2 emissions by 0.09%. Our findings give us an opportunity to argue that FDI inflows to Azerbaijan are not so environmentally friendly. We also have found that increase in economic activity increases the CO_2 emissions, which shows the importance of anti-pollution measures. In this regard, we think that besides supporting foreign and domestic investors, policymakers should increase the technological requirements for both producers for decreasing the carbon emissions and its other negative externalities. In other words, the positive correlation of FDI and GDP with CO2 emissions showing weak anti-pollution measures, which should be developed in order to have environmentally sustainable economic growth.

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THE ROLE OF THE CORPORATE SOCIAL RESPONSIBILITY IN SUSTAINABLE DEVELOPMENT OF SMALL AND MEDIUM ENTERPRISES IN AZERBAIJAN

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ABSTRACT

Introduction and purpose of the study - The primary goal of this research work is to clarify and give a reasonable explanation to the role of corporate social responsibility (CSR) in sustainable development of small and medium-sized commercial organizations, particularly in post-soviet countries including Azerbaijan. As a central topic, it first discusses the concept of corporate social responsibility, its formation, development, transition to a new level, and then concentrates on the role of CSR for the companies, their sustainable development and establishing an effective dialogue with the overall environment. The author sets out the levels of responsibility of the business from the perspective of the CSR pyramid of Archie Carroll specifying the social responsibility as one of the most important responsibilities of businesses. The role of corporate social responsibility is underlined as an effective tool in gaining competitive advantage and establishing dialogue between the business organizations, community and governments.

Literature review - This research work is developed on the basis of published theoretical literature and articles of national and international researchers studying various aspects of CSR. Some field survey and first-hand information gathering has been conducted at this stage of the research. Used sources includes materials of scientific-practical conferences and business forums, expert analyses, documents of international organizations, as well as of business associations specialized also in scientific research.
Methodology - Methods include logical reasoning based on the analysis of scientific literature and of statistical data, analysis of CSR reports and data that is publicly available on the websites of different companies.

Practical and social implications - Conclusions and recommendations in this research work can be used by business organizations, particularly by SMEs who are interested in developing and practicing a consolidated CSR strategy. Furthermore, the content and the research materials of this study can be used for developing lectures/courses on CSR and Corporate Governance, Business Ethics, Strategic Management.

Keywords: *Business and society, SME, social reporting, CSR, sustainable development, CSR pyramid*

1. INTRODUCTION

The end of the XX century and the first two decades of the XXI century has been remembered by globally remarkable changes in the behaviour of business organizations in terms of their increased responsibility towards the society and the environment around. These developments have particularly been observed in developed countries such as the United States, Canada and developed countries of Europe and Asia. Under the auspices and by the initiative of influential organisations certain guidelines have been developed and standards established to regulate CSR activity of across the world. In our days requirement to social component of the activity of enterprises gain more and more importance regardless of their size, field of action, form of

ownership and organizational-legal form, geographical location, culture and national traditions of the country they operate in.

2. CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY, ITS FORMATION, DEVELOPMENT AND TRANSITION TO A NEW LEVEL

Though the history of the concept of corporate social responsibility (CSR) in its modern meaning is not that far the way it had gone through is quite impressive. As we know, intensive discussions about the social responsibility of enterprise's started after the World War II and as a term CSR was coined by American scientist Howard Bowen in his book «Social Responsibilities of the Businessman» (1953) where he underlined that entrepreneurs carry out responsibility towards the environment where they function and had to contribute to social development. Years later, in 1991 Archie Carroll, an American scientist and the author of the CSR pyramid, supported the CSR concept of H. Bowen in his article "CSR: Evolution of the Term" and emphasised the significance of social responsibility in the sustainable development of businesses. During the last three decades CSR concept has been given a great attention both theoretically and empirically. Having gained theoretical recognition and approval by prominent academicians such as Archie Carroll, Kotler, Schwartz, Dou Jones and others CSR became an integral part of the sustainable businesses across the globe. Though CSR has been recognized by majority as an indicator of company's sustainability and ethicalness there are also approaches against this concept. For example, some scientists support the position of businessmen and entrepreneurs who consider that the solution of social issues and problems of society is the responsibility of the state agencies and businesses should not spend time and resources either than paying taxes and dues. This position was also supported by professor Milton Friedman, an American economist , winner of Nobel prize in economics who argued that "There is one and only one social responsibility of business - to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud." Accordingly, M. Friedman considered that responsibility of contribution to social development and the control over this activity should be undertaken by the state and other non - commercial organizations. Though supported by M. Friedman and other theorists in 1960s this position didn't gain neither popularity nor the support of the general public. The developments in XXI century and obvious benefits of being socially responsible made this approach totally unacceptable. However, thorough analyses of Friedman theory helps to understand the essence of the main idea behind his approach: open and free competition without deception or fraud is also a sign of respect to social responsibility and ethical principles. This approach is against businesses trying to hide their illegal or unethical activity behind the so called "social responsibility". When costs hidden behind the social responsibility are higher than the investment on CSR related projects it is more unethical than not having CSR activity at all. The developmental dynamics of CSR concept presented in the following table shows that this model, which appeared in the form of small scientific research in the 50s of the 20th century, has entered into a new stage of development in the 21st century and is regulated by the standards and principles of prestigious international organizations.

Table following on the next page

1950–1970	Initiatives (in the form of studies and research works) proposing establishment of mechanisms regulating the social responsibility of businesses	
1980-2000	Acceleration of globalization process, appeals for establishment of environmental and social reporting	
Since 2000	Promotion of sustainable development, promotion of GRI reporting system, Dow Jones Sustainability Indices (DJSI), SA 8000, ISO 26000, AAA1000 etc.	

Table 1: Dynamics of Evolution of CSR Concept

By the development of society, the character of requirements posed to businesses also changes. As stated by W. Shaw, professor of San Jose State University and author of the book "Business Ethics", in our days "The list of corporate responsibilities goes beyond such negative injunctions such as "Don't pollute," "Don't misrepresent products," and "Don't bribe." Included also are affirmative duties like "See that your product or service makes a positive contribution to society," "Improve the skills of your employees," "Seek to hire the disabled," "Give special consideration to the needs of historically disadvantaged groups," "Contribute to the arts and education," "Locate plants in economically depressed areas," "Improve working conditions.", etc. While examining the standards contained in the Table 1 we observe that these new requirements of modern society are reflected in the relevant global standards and regulations and it demonstrates transition of CSR to a new level of development.

3. CSR AS A FACTOR OF SUSTAINABLE DEVELOPMENT AND COMPETITIVE ADVANTAGE

Today, across the globe corporate social responsibility and ethical governance are perceived as the indicator and guarantee of the sustainable development and successful performance of a company. As we have noted above, requirements to the social responsibility of businesses becomes more serious regardless of the size and field of activity of businesses, their form of ownership, geographical location, culture and national traditions of the country they operate in. To prove it let's review some advantages of being socially responsible. A socially responsible company:

- Can charge premium prices and gain brand loyalty because of their responsible approach towards environmental concerns;
- Can generate enduring relationships with suppliers and distributors thanks to trustworthiness demonstrated;
- Can attract talented workforce as their positive reputation makes it easier to recruit talent. High level of retention is one more strong factor of being ethical business which helps to reduce the costs of recruitment and retraining while increasing motivation and productivity;
- Can count on support of government in difficult times;
- A company is more likely to be welcomed into a foreign country when it has positive CSR reputation;
- Socially responsible companies are more likely to attract investors as strategic investors evaluate the business from different perspectives before making a decision on investment. To note that in recent years, the international ranking tables of the most successful companies are headed by the companies attaching a great respect to CSR. It can be seen from the Forbes list of World's Most Reputable Companies of 2018: The World's most Reputable Companies such as Google, BMW Group, Microsoft, Bosch, The Walt Disney Company, CISCO and others lead the Forbes list of socially responsible companies.

3.1. The impact of CSR to the sustainable development of small and medium-sized enterprises in Azerbaijan

The concept of corporate social responsibility of enterprises, which covers compliance with the requirements for industrial safety and environmental protection, resource saving, provision of good quality products and services, ethical business conduct, investing in social welfare and community initiatives, ensuring decent and safe working conditions has been established in the theory and practice of CSR. However, small and medium sized enterprises cannot afford having the same level of CSR strategy and policy as the big companies do. Their CSR strategy may differ by its scope and components. In developed countries CSR policy has since long been recognized and CSR activities and well established non-financial reporting system is functioning while the situation in developing countries including post-soviet countries is different. The main problem of CSR policy in post-soviet countries is that majority of companies don't have in-depth understanding of social responsibility of businesses. Most of the national companies consider that their overall responsibility is limited to respecting and complying with the norms of legislation i.e. paying taxes, dues, providing related financial and tax reports about their commercial activity. However, the normative acts and legislation doesn't contend all the responsibilities, particularly social responsibilities of businesses. The international CSR regulating mechanisms developed during the last 25 years have not been totally integrated into the national legislation and here the enlightening and regulating role of the government and the non-governmental organizations are necessary to make businesses aware of their social responsibilities. The reason why CSR concept in post-soviet countries, including Azerbaijan, became actual only during the last 10 years (almost 20 years later than in developed countries) can be explained in the following way: 60 years long history of modern CSR concept shows that attention to the social responsibility of businesses increases in parallel to the economic development of a country or an entire region. This was the case in the US, in developed countries of Europe and Asia. As for Azerbaijan, there are number of political, economic and social reasons for belated attention to social responsibility of businesses. Among them are involvement of Azerbaijan in the Armenian-Azerbaijani Nagorno-Karabakh War in 1990s, struggle for the independence that the country gained after being part of the Soviet Union during 70 years, the difficult period of state-building in the conditions of the long-running transformation crisis of the 1990s, the lack of sustainable economic development, demographic crisis, and the poor social environment. Moreover, in order to achieve significant progress in CSR activity, there was a need for a new mechanism that would ensure the transfer of social responsibility from the state to the business. Though this model has not yet been fully developed up to date, yet significant progress is being observed in the field of CSR activity of Azerbaijani companies during the last 10 years. It was possible to achieve as a result of awareness-raising activities, both in national legislation and on public-sector commitment to the society. So, what is the role of the CSR for SMEs in Azerbaijan? - As mentioned earlier, the concept of corporate social responsibility is a relatively new phenomenon for Azerbaijani companies. CSR in Azerbaijan has become popular only since the end of the first decade of the XXI century though the manifestation of philanthropy was part of Azerbaijani entrepreneurs at all times in the form of charity which is considered the predecessor of CSR. Thanks to social contributions of the prominent Azerbaijani Maecenas such as Haji Zeynalabdin Tagiyev, Murtuza Mukhtarov, Aga Musa Nagiyev, Shamsi Asadullayev, Nabat khanum Ashurbeyli and others a significant progress has been made in early XX century in the areas of education, art, construction, science, medicine and some other spheres. To note that Nobel Brothers are also in the list of Maecenas who contributed to the well-being of the Azerbaijani society and are glorified among those who laid the foundation of responsible and ethical business in Azerbaijan. In modern Azerbaijan, the CSR activities try to follow the global trends, while this development comes mainly to the share of big business and does not really encompass small and medium-size businesses.

Azerbaijani SMEs as a rule, limit their CSR activity to a charity of a local scale, presenting it as the main form of their social responsibility. Studies have revealed a number of reasons why small and medium-sized businesses in Azerbaijan continue to abandon their commitment to sustainable social responsibility:

- Absence of required non-financial or social reports. While reading the non-financial reports of companies worldwide we can see components that are very useful for society, for environment, for employees and other stakeholders. Some of the activities doesn't require big resources - they require responsible planning and responsibly developed implementation mechanisms.
- Lots of expenses including income taxes SMEs have to pay to stay legally responsible and they don't have enough financial, material and physical resources to invest in long-term sustainable social projects. As a result, they have to limit their CSR activity to one-time local charity activity.
- Unawareness of the necessity and benefits of being CSR oriented.
- Absence of acknowledgment for the responsible CSR practices which may serve as a strong motivation encouraging enterprises to further develop in this direction. One positive step in this direction was the first Republicn Contest on CSR projects organised in October 2018 by the National Confederation of Entrepreneurs *of* Azerbaijan together with Eurasia International Relations and Research Studies Public Union and the related state agencies.
- Non-active civil society. The role of active and enlightened society to influence businesses is great. Some globally recognized businesses became socially responsible after the call or boycott of the society. NIKE for example became one of the internationally recognised responsible and ethical company after customers boycotted its products because of the irresponsible exploitation of child labour in sweatshops in South East Asia. After having reconsidered its policy of using cheap labour force in bad working conditions the company improved and occupied its place in the list of companies respected for their CSR strategy. Influence of society made the British Petroleum be converted into Beyond Petroleum.

In line with these shortcomings it should be noted that global improvements in CSR activity of businesses and developed frameworks and initiatives are being reflected in the CSR activity in Azerbaijan. The list of measures taken include amendments to the related laws, issued normative acts, joining global social responsibility initiatives and developing related guidlines. The following regulating and recommndation mechanisms have been developed name a few:

- Azerbaijan Corporate Governance Standards developed by the Ministry of Economic Development in cooperation with International Finance Corportaion (IFC)
- "The Code of Corporate Ethics" developed by the Ministry of Economic Development in coopertaion with International Finance Corportaion
- Reformations carried out by the Council on State Support to NGOs
- Establishment of the Agency for Development of Small and Medium-Sized Enterprises
- Activity of the State Agency for Sustainable development under the Ministry of Economics.

Thanks to the taken initiatives by government certain improvements are observed in the field of CSR activity, while (as mentioned above) this development comes to the share of big businesses such as oil companies, big industries, banks and mobile operators and does not really encompass small and medium-size businesses.

4. SUMMARY AND RECOMMENDATIONS ON THE FURTHER DEVELOPMENT OF CSR ACTIVITY OF SMEs IN AZERBAIJAN

The practise demonstrates that the most affordable way of the responsible self-assessment and ensuring the awareness of public about any activity goes through following the requirements,

recommendations and standards set on the given field. Therefore, the adoption of documents regulating corporate social responsibility in the country is a prerequisite for enhancing the social activities of enterprises. Accordingly, enterprises will strive to provide the public with evidence of their socially responsible activities. The first and main document that needs to be developed is standards on social reporting of enterprises and organizations functioning in the Republic of Azerbaijan. This document should be accompanied with methodological guidelines on implementation. The main advantage of adopting these standards will be encouraging companies to approach their SCR activity more responsibly. It will help to minimize the number of businesses having not made sustainable investment for social benefits and trying to appear as a socially responsible company by conducting a hastily organised charity event. Comprehensive preprinted reporting teplates will help those who want to be active in CSR and to have their investments and activities more targeted and accurate but not having expertise in this field. Another important issue is providing expert support to organizations in developing and implementing their social responsibility practices. There are various national and international guidance on social, environmental and economic responsibilities such as GRI reporting system, Dow Jones Sustainability Indices (DJSI), SA 8000, ISO 26000, AAA1000 to name a few. However, preparing these reports will require providing expert support for companies. Experts may help companies in developing CSR strategy taking into consideration local conditions and the indicators of a company, surveying and identifying areas to be covered with CSR activity, identifying related indicators and then providing support to companies in drafting reports on the implemented activities. Without having expert support, a company, willing to be socially responsible and carry out related activities will fail in its endevours and will again forced to limit their focus on spontaneous charity events to prepare a CSR report. Special attention should be paid that the prepared CSR reports are developed according to the principles reflected in the related documents of reputable international organizations. Below is a short list of the most popular providers of sustainability reporting guidance:

- The GRI (The Global Reporting Initiative - GRI) Sustainability Reporting Guidelines enable companies and organizations to report their economic, environmental, social and governance performance. A sustainability report is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities. Sustainability reporting can help organizations to measure, understand and communicate their economic, environmental, social and governance performance, and then set goals, and manage change more effectively. A sustainability report is the key platform for communicating sustainability performance and impacts – whether positive or negative. The Guide provides a list of specific indicators for reporting on the social, environmental and other related activities of an enterprise. One of the main advantage of GRI Sustainability reports is that it is for reporting by companies and organizations of all types, sizes and sectors worldwide. In 2018 companies form all sectors across the globe have published their sustainability reports according to the standards set by GRI's Sustainability Reporting Guidelines.)
- ISO 26000 standards for social responsibility provides guidance on how businesses and organizations can operate in a socially responsible way. This guidance helps organizations to act and report in an ethical and transparent way that contributes to the health and welfare of society. However, it should be noted that ISO 26000 is different from other ISO standards that are certified. It is a guideline regardless that of being called a standard.
- SA 8000 «Social Accountability» is an auditable certification standard developed according to the recommendations of International Labour Organization that encourages organizations to develop, maintain, and apply socially acceptable practices in the workplaces. SA 800 sets criteria for evaluation of several important aspects such as child labor, forced and compulsory labor, health and safety, freedom of association and right to collective

bargaining, discrimination, disciplinary practices, working conditions and hours, remuneration. All the listed aspects are very important to be respected and reported on by small and medium size enterprises.

- One of the most important reporting standards is AA1000 which covers the whole range of necessary information in the field of sustainability. Developed and then updated in 2018 the AA1000 Accountability Principles is applicable to organizations of all types and sizes and is primarily intended for organizations intending to develop an open, accountable and strategic approach to managing sustainability performance.

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MONITORING AND EVALUATION SYSTEM OF RESEARCH ACTIVITIES AND SCIENTIFIC POTENTIAL (IN CASE OF AZERBAIJAN)

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ABSTRACT

In this article the author considers reasons of the current trends in world development, the large-*scale transformation of society based on the influence of scientific, technological and social growth, as well as their speed and interaction, which covers almost all spheres of human activity. Key factors and sources of economic growth change accordingly. Scientific knowledge and intellectual capital, which are the main sources of creating competitive advantages and sustainable development of socio-economic system are considered the most important. From the beginning of independence of the Republic of Azerbaijan to the present, the course of improving science and technology policy of state is consistently implemented aiming at further support for the stimulation of scientific and technological development and innovation activities of the republic. As a result of the policy implemented, a viable science and technology environment has been developed that generates new knowledge priority scientific and technical areas have been identified. In terms of the transformation of the market economy, it successfully solves the issues of macroeconomic stability, which is one of the most important factors of the transition from the export-raw model of economic development to an innovative economy, the key resource of which is human capital. In conclusion should be notes that it is necessary to create a unified national system of scientific and technical knowledge, which should ensure the development and effective use of national resources of scientific and technical information, their integration into the global information space and promote the creation of a market for information products and services. After applying this model of innovative research will develop infrastructure and mechanisms of scientific and technical knowledge. It will fund mainly by private sector and should create for introducing new technologies, production of innovative products, as well as strengthening the scientific potential of the country and improving human resources in the future.*

Keywords*: assessment, expertise, innovative economy, scientific, social growth, technical knowledge*

1. INTRODOCTION

To ensure the sustainable development of the national economy, it is necessary to combine various instruments of state regulation in science, technology, and innovation. These tools should aim at creating favorable conditions for the development, transfer, and dissemination of knowledge, creation of innovations, competitive enterprises and high-tech industries, environmental management and the development of social well-being of society. Research institutes and education system play a key role in achieving these, which depends on dynamic economic growth and social development of society. For effective social development, establishing a developed system is important for mutual work, networks, and connecting stakeholders- government agencies, funds, companies, scientific organizations, universities through the developing common interests and strategic plans in joint innovation projects. Constructive activities and projects are carried out by recognizing the importance of such collaboration in Azerbaijan. This paper researches the first steps to be taken to achieve the goal.

In addition to this, the researcher recommends carrying research in the context of higher education institutions.

2. METHODS

2.1. Assessment of scientific activity

The assessment of scientific activity using the existing scientific potential is underway in higher education institutions of Azerbaijan. In this respect, the Cabinet of Ministers of the Republic of Azerbaijan approved the "Requirements for promoting the status of Higher Education Institutions as Research University" (Law of Azerbaijan Republic, p.1). The assessment of scientific activity is crucial for the execution of the relevant articles of the Decree. For the implementation of this process, Azerbaijani higher education institutions need to benefit from international experience. Evaluation system of research activities and scientific potential include the assessment of scientific activity is classified as determining the rankings of researchers, journals, universities, and countries:

2.1.1. Assessment of researcher's scientific activity

Individual assessment - the number of articles and citations for the assessment of the researcher's scientific activity, the age of the articles and so on. Several indicators are applied, for example, h-index, g-index, m-index, R-index, AR-index, and others. The *h*-index is an author-level metric to measure both the productivity and citation impact of the publications of a scientist or scholar. The index is based on the set of the scientist's most cited papers and the number of citations that they have received in other publications. The index can also be applied to the productivity and impact of a scholarly journal as well as a group of scientists, such as a department or university or country (link:H-index). The h-index is defined as the maximum value of *h* such that the given author/journal has published *h* papers that have each been cited at least *h* times (McDonald, Kim 2005). The index is designed to improve upon simpler measures such as the total number of citations or publications. The index works properly only for comparing scientists working in the same field; citation conventions differ widely among different fields. (Jones, T.; Huggett, S.; Kamalski, J. 2011, p. 36-38)

For instance, a researcher has a certain amount of articles, and for each i article there is a citation in c (i) number ($i = \overline{1,N}$):

$$1 \to c(1)$$
$$2 \to c(2)$$
$$\dots$$
$$h \to c(h)$$
$$h+1 \to c(h+1)$$
$$\dots$$
$$N \to c(N)$$

Articles are arranged in descending order according to the citations. That is, for arbitrary i

$$c(i) \geq c(i+1).$$

Then citations c (i) are compared with an ordinal number of the article, which is i. The largest number *i*, the satisfying condition of $c(i) \geq i$ is accepted h-index of a researcher.

$$h = \max\{ i \,|\, c(i) \geq i \}.$$

For instance, a researcher has 9 articles and 20, 15, 8, 7, 6, 5, 4, 2 and 2 are cited according to them. For this case *h*=5. Indeed, $c(1) = 30 \geq 1$, c(2) = 20 ≥ 2, c(3) = 10 ≥ 3, c(4) = 8 ≥ 4, $c(5) = 6 \geq 5$, c(6) = 4 ≥ 6. As a result, the largest number is 5.

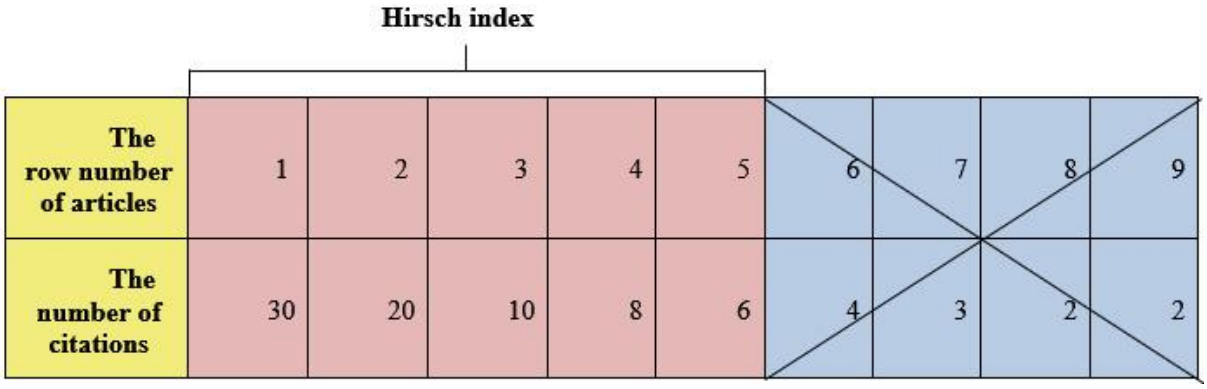


Figure 1: Hirsch index

2.1.2. Index of journal assessment

Impact factor is a quantitative indicator of the importance of the journal. The **impact factor** (**IF**) or **journal impact factor** (**JIF**) of an academic journal is a measure reflecting the yearly average number of citations to recent articles published in that journal. It is frequently used as a proxy for the relative importance of a journal within its field; journals with higher impact factors are often deemed to be more important than those with lower ones (Alonso 2010, p.179). The impact factor was devised by Eugene Garfield, the founder of the Institute for Scientific Information. Impact factors are calculated yearly starting from 1975 for journals listed in the Journal Citation Reports (Link: Impact Factor). Immediacy Index - assesses the average number of times an article is cited. For example, Immediacy Index of journal F equals the ratio of number of citations (R) in 2014 to the number of articles (T) in the same year.

$$\text{Immediacy Index } (F_{2014}) = \frac{R}{T}$$

For example, if the number of articles published in journal F in 2014 is 100 and the number of citations is 12, then the immediacy index equals 12/100=0.12

2.1.3. Assessment of organization

Proper, reliable and timely information that can be obtained through objective assessment, regular monitoring and strategic analysis of relevant market segments is required to implement the strategic priorities of the social and economic development of the Republic of Azerbaijan and carry out relevant activities for science, technology, and innovation policy of the state. At the same time, the information should be based on a system of indicators that allows characterizing the scientific, technological and innovative development of Azerbaijan within the implementation of the target socio-economic programs. Indicators should be taken into account for integral assessments by the players of the global market, which determine the country's rating according to one or another development factor and the rating, in turn, affects its reputation, self-identification, and the idea of its present and future. The ratings formed by a number of organizations, such as the Academic Rating of World Universities or the Shanghai Rating, the rating of world universities "Quacquarelli Symonds" and the World University Rating "Times Higher Education" (THE) have worldwide recognition in science and education areas. QS World University Rankings (QS-THES) is a joint project of the UK "TSL Education Ltd" and "Quacquarelli Symonds".

The following indicators are the basis in the "Top 200 World Universities" rating of The Times Higher Education Supplement newspaper, published in November 2004:

- The opinion of the academic community and researchers about the university
- Citation index of scientists' works
- The share of foreign students and teachers

From October 30th, 2009, Times Higher Education separated from QS, and started to collaborate with Thomson Reuters to create a yearly database of "World University Rankings." The magazine identifies a new assessment methodology for readers and editorial staff. Since that period the QS rating system has started a cooperation with the SCOPUS scientific base. At present, the project is being implemented to strengthen the position of the university in QS rankings at the Azerbaijan State Economic University (UNEC). In 2017, UNEC was classified among the top 5.5% of the "Best European and Central Asian Universities". UNEC, which ranks 5th among Azerbaijan's universities, scored 8 points, rose by two points and ranked third among the top-rated Azerbaijani universities last year. Among the specialized Azerbaijani universities, UNEC is in the first place. The current aim is to promote the university's position in this rating. ("QS regional rating for 2018 year" UNEC has been promoted 30 levels. 2017)

2.2. Expertise of scientific activity

Peer review- Activities to replace or supplement the traditional peer review by numerical methods, mainly bibliometrics. Peer review is an assessment process conducted directly by experts. They study the articles submitted for publication, applications for grants, the general level of individual scientists, research groups and institutions. Peer review can range from anonymous review of texts to the teamwork of international specialists (Akoyev 2014, p. 64). Bibliometric techniques are based on the statistical analysis of scientific communication, which in most disciplines (but not all) is conducted by publishing articles in journals. Existing databases (Clarivate Analytics, Thomson-Reuters ISI Web of Knowledge and Elsevier Scopus) contain information from the most reputable world-class scientific journals. Bibliometry is a large number of methods used to measure text and information. Through implementing the mathematical and statistical methods of scientific potential, books, periodicals, and others, bibliometry laws are used to evaluate printed materials. These laws are as follows:

1. Bradford's law of scattering – a law of collecting and disseminating information
2. Lotka's square law - studying the frequency of articles
3. Zipf law - reflects the dependence between the number of words in the text and the frequency of their processing.

In line with the context of this study, it is necessary to introduce Bradford's scattering law. Bradford's law of scattering has been used as an argument about how to build collections, how to select journals to be indexed in bibliographies, how to measure the coverage of bibliographies, how to solve practical problems related to information seeking and retrieval, and by Bradford himself as an argument for a new way to organize bibliographical work and scientific documentation. Any Bradford analysis involves three steps (Diodato, V. 1994, p.16-17):

1. Identify many or all items (usually articles) published in this field;
2. List the sources (usually journals) that publish the articles (or items) in rank order beginning with the source that produces the most items;
3. While retaining the order of the sources, divide this list into groups (or zones) so that the number of items produced by each group of sources is about the same. (Birger Horland, Jeppe Nicolaisen 2005).

2.3. Lotka's Law

Generally, Lotka's Law is an inverse square law that for every 100 authors contributing one article, 25 will contribute 2, 11 will contribute 3, and 6 will contribute 4 each. We see a general decrease in performance among a body of authors following $\mathbf{1:n^2}$. This ratio shows that some produce much more than the average which seems agreeably true for all kinds of content creation. However, Lotka doesn't take impact into account, only production numbers. Furthermore, in 1974, Voos found that in Information Science, the ratio was currently $\mathbf{1:n^{3.5}}$. (Voos 1974) Thus, we can say that Lotka's Law may not be constant in value, but in following inverse square (Turnbull, Don (1997)).

2.4. Zipf's Law

The most powerful, wide ranging law of bibliometrics is Zipf's Law. It essentially predicts the phenomenon that as we write, we use familiar words with high frequency. A distribution applied to word frequency in a text states that the **nth** ranking word will appear **k/n** times, where **k** is a constant for that text. For analysis, this can be applied by counting all of the words in a document (minus some words in a stop list - common words (the, therefore...)) with the most frequent occurrences representing the subject matter of the document. We could also use relative frequency (more often than expected) instead of absolute frequency to determine when a new word is entering a vocabulary. Zipf said his law is based on the main predictor of human behavior: striving to minimize effort. Therefore, Zipf's work applies to almost any field where human production is involved. We then have a constrained relationship between rank and frequency in natural language. Perhaps Zipf's Law can be applied to other scales of information as well. Wyllys suggests an approach by Benoit Mandelbrot is better at a more granular level. For costs in terms of words, letters that spell the words and spaces that separate them increase with the number of letters in a word, and (expanding outward again) by extension in a message. In other words Zipf's Law works at a micro (language) level as well.

3. DISCUSSION

3.1. Funding of scientific activity

For the evaluation of scientific activity, the volume of funding and human resources should be taken into account for expert research and evaluation. The main reason for the lack of funding for scientific activity is that different countries provide funding for those areas that have had a positive impact on the country's economy. For example, Turkey invests on agriculture, whereas South Korea mainly on scientific research experimental construction work. The second reason is that some of the departments on nature, technical and medical science (technical) have been formed that have profitable practices in their activities without funding. Research shows that the weight of scientific articles printed in journals in scientific research experimental construction work is stable and makes up 10%. Other 90% of the funds are spent on applied research and projects (Latur 1988, p. 288). The allocation of funds spent during the lifetime of EATC can also be classified by the readiness of technology on practical work. Figure 2 (Technology Rediness level 2018)

Figure following on the next page

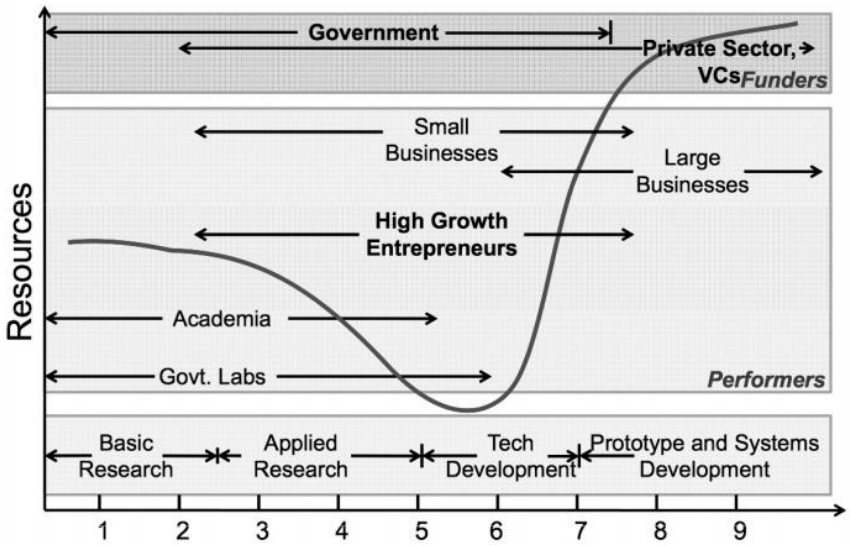
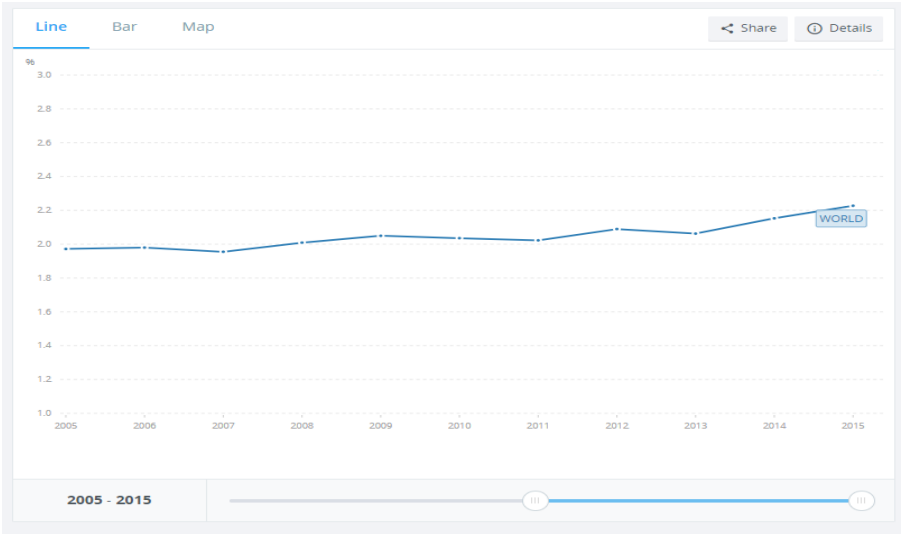


Figure 2: Distributing Resource costs to R&D.

The numbers will be summed up by the technology TRL. In the Funders section, funds will be allocated to finance economy sectors. In the Performers section, the funds are distributed to the executors. Figure 2 shows that the most cost-effective phases follow after the fundamental research phase (after levels 1 and 2). It should be noted here that the phase of fundamental researches is the most risky stage, it is only state-funded, and for obtaining practical results some delays may occur. In Azerbaijan funding of scientific research works is carried out in two directions in accordance with the relevant legislation: State budget funds and self-financing (Law of Azerbaijan Republic, p.3,4). Funding for scientific research and activities in higher education institutions is allocated from the state budget for conducting fundamental researches, for experimental-design works on the basis of economic contracts is financed from the scientific and technical and social development funds of the institution. Based on the amendments made in the existing regulations, research activities are financed through grants, the same as in the other countries. As an integral part of the teaching process, research activities of the higher education institution will be carried out by means of the founder's funds, grants, funds from various sources and other legitimate sources. Figure 2 outlines expenditure on GDP for research and development over the decade.

Figure 3: Research and development expenditure (% of GDP)



(www.data.worldbank.org)

№	Country	2005	2015
1.	Azerbaijan	0.22	0.22
2.	Georgia	0.18	0.32
3.	Russian Federation	1.07	1.13
4.	Iran Islamic Rep.	0.64	-
5.	Turkey	0.59	-

Table 1: R&D expenditure (%) in border countries.

If we look at Table 1, we see that the neighbor country, the Russian Federation and Georgia, has increased its GDP share for research & development over the years. However, Iran and Turkey are preferring R & D financing in other areas, not in GDP. Due to the limited resources in the past 30 years, scientists and experts have vigorously discussed how to evaluate the results of scientific activities in order to optimize its financing (Zhilyakova E. V., Khrustalev E. Y. 2008. № 2.) In recent years, the degree of discussion has intensified significantly. It should be noted that, according to the legislation, Azerbaijani higher education institutions have to achieve at least 20 grants from local and international donors over the last five years in order to finance scientific activity. There is a need for international experience in this area.

4. CONCLUSION

Throughout this paper, factors possibly influencing the determination of evaluating science in social life of the country, were studied. To achieve results, it was necessary to find appropriate facts, applied by international practice. Due to space constraints, this section is focusing on the main results obtained from basic knowledge in this area. Enhancing the existing scientific potential is a prerequisite for evaluation and monitoring of scientific activity. The following activities are key to achieving this goal:

- Interaction of state authorities at various levels;
- Research and analysis of existing methods of scientometrics and tools for the formation of databases of electronic scientific and educational journals and evaluation of their impact factor, as well as the authors' rating;
- Development of normative-methodological and legal materials on the collection, digitization, cataloging and formation of a database of scientific journals of Azerbaijan;
- Determination of requirements for the presentation of electronic journals in databases, as well as the authors of scientific publications in the country that meet international requirements (in particular, the Web of Science);
- Definition of statistical indicators, which will be reflected in the reports on scientific publications of Azerbaijani authors and methods of their calculation.
- Formation of data of scientific journals published in Azerbaijan and providing online access to them, obtaining information about national citation guides.

Scientometrics Department has been established to investigate and implement these issues in higher education institutions of Azerbaijan. In order to achieve this soon, we need to consider the models used in international practice. The most commonly used is the Norwegian model. The 'Norwegian Model' attempts to comprehensively cover all the peer reviewed scholarly literatures in all areas of research—including the preferred formats and languages of scholarly publishing in the humanities—in one single weighted indicator which makes the research efforts comparable across departments and faculties within and between research institutions. In this model there are three main components:

a) A complete representation in a national database of structured, verifiable and validated bibliographical records of the peer-reviewed scholarly literature in all areas of research;

b) A publication indicator with a system of weights that makes field-specific publishing traditions comparable across fields in the measurement of 'Publication points' at the level of institutions;
c) A performance-based funding model which reallocates a small proportion of the annual direct institutional funding according the institutions' shares in the total of Publication points (Gunnar Sivertsen, 2016).

All areas of research is equally and properly designed by Norwegian model. In Azerbaijan country implementation of typical mode need involve important researchers in each major area of research. The result of these applying this model will be simple, pragmatic and one single compromise—bibliometric indicator comparably and comprehensively cover all areas of research—in each individual field ideal and several separate representations of scholarly publishing standards.

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PRIORITY DIRECTIONS OF FINANCING SOCIO-ECONOMIC DEVELOPMENT OF REGIONS IN AZERBAIJAN

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ABSTRACT

The article outlines the essence of the state's regional policy and determines its main directions. Specifically, the criteria for determining the backward regions, which are of crucial importance in the formation of the regional policy of the state, have been substantiated. The article also substantiates the directions of financing the social and economic development of the regions. These justifications cover energy, transport and social development issues. The article outlines the factors that necessitate the state support to the development of the rural areas. The density of the population was noted as the main factor supporting the development of rural areas. Thus, in rural areas, due to low population density, both production and sales of products require large expenditures in comparison with urban areas.

Keywords: *Regional policy, spatial inequalities, financing rural development, state programs*

1. INTRODUCTION

Provision of regional development at the present stage of Azerbaijan's economic development is one of the most important priorities. Development of all regions of the country leads to overall development and increase of living standards of the population. Regional development policy is aimed at ensuring economic growth and sustainability of economic development. Based on the detection and elimination of structural problems in the country, state policy focuses on forming the necessary conditions for the development of regions and raising their competitiveness. The state's regional development policy, direct and indirect coordination of long-term economic decisions in order to address the challenges posed by regional development, in some cases, income, consumption, employment, investment and so on in regions can be seen as the conscious attempts of the state directed to control over the parameters. This policy is, first of all, related to the amount of public spending on the objectives of eliminating the differences between the regions on the development of regions and the level of socio-economic development. Thus, reaching any of the goals depends on decisions about the distribution of limited economic resources. This applies directly to one of the functions of finance. Second, regional development policy covers the impact of economic agents' decisions on the location of production and investment activities. So, the activity of any subject is related to the location. From this viewpoint, the state will have the opportunity to influence the selection of such a space. By Influencing the formation of income of farmers, the state affects their decisions regarding the location of production

2. METHODOLOGY

Space is an integral part of economic, social, ecological, political and cultural attitudes and processes, and their geographies define the conditions and forms of societal methods of how these processes can be developed (Markusen A. (1987) Regions: The Economics and Politics of Territory, Rowman and Allenheld, Totowa, NJ.). The unevenness or differentiation of the economic space has a significant impact on the state structure, the structure and efficiency of the economy, the intuitional changes and the tactics of socio-economic policy (p.41) (Regional development: the experience of Russia and the European Union. / A.G. Granberg, Moscow: ZAO "Izd-vo" Economics ", 2000, 435p.). Local and regional progress and material well-being depend on the continued growth of employment, income and productivity, which is an integral

part of economic development (STORPER M. (1997) The Regional World. Territorial Development in a Global Economy. Guilford, London.). From this point of view, the concept of "regional development" is related to the change in the number of population, employment, income and value-added regional productivity. It also means social development, which includes the health and well-being of the community, the quality and creativity of the environment (Theories of Local Economic Development: Perspectives from Across the Disciplines/Edited by Richard D. Bingham and Robert Meir. London: Sage Publications, pp. 319. C.27). In our view, the socio-economic development of the country is related to the socio-economic development of the regions and the elimination of differences between them. Regional development depends on geographical and demographic factors, specialization and productivity, physical and human capital, infrastructure and innovation. As the factors on the regions differ, their developmental levels also differ. This situation is widespread even in developed countries. For example, in Belgium the gross domestic product (GDP) per capita in the capital is 2 times more than in the province of Flanders, 2.8 times than in the province of Wallonia, and in the Netherlands this indicator in Antwerp is 1.8 times higher than the province of Eno (Regional policy of the EU countries. IMEMO RAS, Moscow: 2009, 230 p. from. 14.). Studies carried out in 1995-2007 by member states of the Organization for Economic Cooperation and Development (OECD) have shown that 32 percent of economic growth has been achieved by about 4 percent of the regions. The emergence of such a situation affects the geographical position of certain regions, their natural vulnerability levels, climates, and the quality of land, but in many cases market forces deepen regional inequality. The article uses an application-oriented approach to define areas of financing for regions. The main purpose of the regional economic (or socio-economic) policy is to express the compromise between economic efficiency and social justice, although it is expressed in different ways in different countries (A.G.Granberg. Bases of regional economy. Moscow: State University Higher School of Economics, 2003, 495 pp., P. 350). For example, in most OIC member countries, regional equilibrium (justice) and efficiency (growth and competitiveness) are based on regional policies. Examples of regional balances include the priority of the development of the backward regions in Denmark, the regional balance in Finland, the territorial integrity of France, and the equal living conditions in Norway (pp. 14) (Regional DevelopmentPolicies in OECD Countries. Paris:OECD Publishing, 2010, 388 p.). The scale of the development of the regions has a significant impact. It is assumed that the rural area has a higher position in the distribution of economic resources than cities. In such a situation, the development of infrastructure for improving the competitiveness of vulnerable regions can be ensured by the allocation of economic resources to the benefit of vulnerable regions due to the state's funding. Thus, the region's competitiveness has a significant impact on the speed and value of material, financial and information flows in that region.

3. RESULTS

According to the socio-economic development of the forces, the role of the market in reducing regional inequalities is limited and this usually causes concentration of production in separate regions. Therefore, the state implements the redistribution of economic resources in favor of the regions with low development levels to reduce disproportions in the territorial structure of the national economy. In such circumstances, it is necessary to determine the criteria for the implementation of the resource allocation. For example, in the European Union, these criteria are the gross domestic product per capita, the unemployment rate and the rate of job creation, rural and agrarian regions (9. A. Cappelen, F. Castellacci, J. Fagerberg, B. Verspagen. The Impact of Regional Support on Growth and Convergence in the European Union. Eindhoven Centre for Innovation Studies, The Netherlands Working Paper 02.14, September 2002, 27 pp, p. 7.).

Thus, in the European Union, if the per capita Gross Domestic Product in the region is 75% of the average, this region is considered to be the backward. Also, the gross domestic product per capita and the share of agriculture in employment is one of the factors that are considered in determining the state support to the regions. From this point of view, it is possible to identify the regions in Azerbaijan that need to be supported. Although the gross domestic product is not calculated in the regions, the gross output per capita on key areas in the regions in 2012 varied from 5.1 per cent to 39.1 per cent of the country's average (Except for the Nakhchivan economic region, this figure is 95.8 percent in this region). As you can see from this criterion, all regions (except for the city of Baku only) are included in the category of regions that must be supported. Also, in 2012, 37.7 percent of the employed population accounted for agriculture, forestry and fishing, which is mainly covering the regions. In this regard, supporting the development of agriculture in the regions, as well as the development of non-agrarian spheres should be prioritized. At present, the Azerbaijani government has the necessary capacities to finance the development of the regions. Successful implementation of oil strategy has increased the volume of revenues in the country. An important part of these revenues remains at the disposal of the state. So in 2011, 50.1 percent of the remaining revenues in the country were aimed at saving and only 42.4 per cent of these resources were directed towards implementing investments across the country. Also, 62.0 percent of total savings in the country in 2011 were at the disposal of the state, of which only 44.3 percent were used. Over the recent years, the state's overfulfilment of the consolidated budget revenues has led to an increase in the assets of the State Oil Fund of Azerbaijan. Thus, the resources of this fund will be $ 34.1 billion USD by the end of 2012, which is approximately half of the gross domestic product. Limitations of financial opportunities in the regions of Azerbaijan and poor development of institutional structures significantly increases the role of the state in regional development. Desipite the implementation of two regional development programs in the country over the past 10 years: State Program on Socio-Economic Development of the Republic of Azerbaijan (2004-2008) and State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan in 2009-2013, the difference between Baku and other regions has not diminished significantly. Taking this into account, the Government of Azerbaijan has adopted the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018. In our view, the precise definition of regional development programs is crucial in terms of the effectiveness of the limited economic resources distribution. These goals are different in different countries. For example, the goal of a regional policy in the UK is to achieve a high and stable level of economic growth and employment across the country by providing full use of the existing potential of each region. In Poland, regional policies are aimed at supporting economic growth pole (large cities), in addition to stimulating the development of the backward regions, especially southern regions. In general, in the European Union, regional programs covering 2007-2013 include goals such as mergers, competitiveness, employment and foreign co-operation (Governing Regional Development Policy: The use of performance indicators. Paris: OECD Publishing, 2007, 198 p, p.34.). From this point of view, it is important to identify the objectives of regional development programs. The main objective of the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018" is the continuation of measures to develop non-oil sector, diversification of the economy, rapid development of regions, especially infrastructure and social services as well as further improvements. In our opinion, the main goal here is to accelerate the rapid development of the regions (including the development of the non-oil sector and the diversification of the economy). Nevertheless, the mentioned program would provide a high tempo of economic growth by identifying development poles in the country and directing resources to the development of these poles. To achieve the goal set out in the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018", it is

intended to achieve further improvement of the provision of infrastructure in the regions, including the provision of communal services to the population, accelerating the development of entrepreneurship in the direction of export-oriented and competitive products, increasing the employment rate of the population, especially the rural population, and the continuation of measures to reduce the poverty level. One of the most important tasks facing the government is to increase employment in the regions. Thus, by the end of 2012, the population in the country increased by 33.2 per cent compared to 1989 and 17.6 per cent in comparison to 1999, while the number of able-bodied population increased by 66.5 per cent and 43.4 per cent respectively. As a result, the share of those who are able to work in the total number of the population increased from 55.4 percent in 1989 to 56.8 percent in 1999, and to 69.2 percent in 2012. It should be noted that this figure reached its peak, 69.3 percent in 2011. As you can see, at present, the country has entered into the most aggressive period in terms of employment. In 2012, the share of Baku in the country's population was 23.0 percent, while its share in hired workers was 44.7 percent. Also, the latter figure increased by 1.8 percent compared to 2000. In 2012, the share of hired workers in the total number of the population was 30.7 percent in Baku, whereas in economically distant regions this figure was 11.4 percent. In particular, the rate of natural increase in rural areas in the country being relatively high, increases the importance of rural development and employment promotion. For this purpose, the following measures are envisaged in the field of employment in the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018:

- expansion of regional economic relations;
- Formation and development of a fair competition environment, ensuring compliance with labor legislation;
- directing a portion of revenues from oil exports to human capital development and applying advanced technology and innovations to the development of science-intensive industries;
- Creating a balance between the proposed workforce and the number of jobs available;
- Reduction of population migration through further development of social and communal infrastructure in rural areas;
- Increasing the level of employment of women and youth.

In general, the creation of new jobs in the country is one of the key factors that determine the economic policy of the state and it will depend on the measures taken to improve the competitiveness of the regions. One of the main directions of raising competitiveness of the regions is related to the development of infrastructure. One of the important areas in the development of the regions is the development of transport. Investments in transport infrastructure increase the region's internal and regional ties with other regions. This leads to the improvement of conditions for production, tourism and commerce, as well as the increase in competition and concentration across the country by reducing the time of transportation as well as the quality and price ratio of transportation services. The development of transport infrastructure in the country is also a necessary condition for the specialization of regions. It should be noted that the development of transport infrastructure has a direct, indirect, and derivative influence on the development of employment in the regions. Direct and indirect impacts are related to the creation and operation of transport infrastructure, whereas indirect impacts result from the impact of transport infrastructure on the region's competitiveness. As a result of the development of transport infrastructure, the time and cost savings, increased access to transport services, and reliability increase productivity in production. For example, the increase in the quality of motor roads can increase the vehicle lifetime and reduce its current operating costs. Also, increasing access to markets leads to increased productivity by creating new opportunities for business and raising competition. Thus, the development of transport infrastructure has a significant impact on employment and economic growth by increasing labor

productivity. The energy supply is crucial in the formation of competitiveness of the regions. Expansion of the electricity grid causes a reduction in system costs associated with investment projects in the regions. Over the past 2004-2013, 17 power plants with a total capacity of 2000 megawatt have been built in the regions, more than 10,000 kilometers of power lines and more than 1,500 substations have been constructed or reconstructed. During the mentioned period, 40,000 kilometers of gas lines were constructed or repaired in the field of natural gas supply, and the level of gas supply in residential houses reached 83.4 percent from 34 percent. At the same time, economic growth in the regions may require additional energy resources. One of the key priorities in the development of the regions is the financing of housing and communal services. So, in most regions of Azerbaijan, in housing and utilities sector, the current level is significantly below the established norms. For example, in 2012 the average per capita housing area in Azerbaijan was 13.1 m2, whereas in Sweden this indicator was 52 m2, in the UK 34.5 m2 and in the US 96 m2. Also, the proportion of housing commissioned in the country in 2012 was about 1.9 times less than in 1990. Also, if we accept the amortization period of a residential building for 50 years, then we come to a conclusion that the depreciable part of the country's housing stock is more than 2141.2 thousand square meters of housing put into use in 2012. As it is evident, increasing the housing construction is needed to improve the living conditions of the population in the country. Also, according to a survey conducted by the State Statistical Committee in 2010, an average household in the country consumed 2966.7 kWh of electricity in 2009. This figure was less by 907.6 kWh in Nagorno-Shirvan economic region, 772.4 kWh in Guba-Khachmaz economic region, 1040.8 kWh in Sheki-Zagatala economic region, 505.8 kWh in Ganja-Gazakh economic region, 412 kWh in Nakhchivan economic region and 756.8 kWh in Lankaran economic region. In the mentioned year, the average gas consumption per household was 2143.0 cubic meters, which was less by 619.9 cubic meters in the Nakhchivan economic region, 68.0 cubic meters in the Ganja-Kazakh economic region and 426.7 cubic meters in the Lankaran economic region m, and 345.2 cubic m in the Aran economic region. In 2012, 54.8 percent of households lived in urban areas, 45.2 percent in rural areas, while households with central heating systems account for 12.8 percent, households with network gas - 75.2 percent, the water pipe share of households was 78.8%. Also, one of the priorities is the implementation of measures to improve the population's housing coverage in conditions of population growth. In this area, the continuation of reforms in the housing and communal sector in the regions, supporting the development of the real estate market, provision of low-income citizens in need of housing in the regions, including young families, reconstruction and improvement of the water supply and sewerage system measures are planned to be implemented in 2014-2018. For example, within the project "Reconstruction of water supply and sewerage system of Lankaran city", it is planned to build ultrasonic cleaning plant based on a new technology with the output of 30,000 cubic meters per day. The project envisages construction of 15,000 cubic meters of water reservoir, pumping station, 200 km of various diameter distribution network, 180 km long sewerage network and 8 sewage pumping stations. In recent years, large-scale investments have been made in education in the regions, but this sector still remains a priority. In particular, the coverage of regions with pre-school institutions is low. For instance, in the Lankaran economic region, the level of provision for kindergartens is 15 per cent, in Nagorno-Shirvan economic region - 8.2 per cent and it is 23 per cent in Sheki-Zagatala economic region. Also, the calculations show that the number of seats in the regions is smaller than the numbers specified in the standard (AzDTN 2.6-1). From this point of view financing of construction of cultural facilities is one of the priority areas. It should be noted that, in addition to investment costs in the aforementioned areas, a substantial part of maintenance costs should be provided through the state budget. From this viewpoint, it is required to link the revenues of state budget with increasing costs. In 2012, 60.9 percent of the population in the economic regions of Azerbaijan (excluding Baku) was made up of rural population.

In this regard, the social well-being of a significant part of the population depends on the development of rural areas. As already mentioned, geographically, economic growth is mainly based on scalability and concentration in certain regions and cities. That is, the regions that can not mobilize enough opportunities to obtain employment and income are left behind. From this point of view, rural areas have a number of shortcomings. Thus, rural areas do not have a density which has a positive impact on the growth of the economy in a certain space. For example, according to the definition of the Organization for Economic Co-operation and Development (OECD), if less than 150 people fall per square meter, then such communities are considered as rural communities. If the share of the rural population exceeds 50 per cent in the region, then such region is mostly considered rural, if this share is less than 15 per cent then it is considered an urban region, and finally if it is between 15 and 50 percent, then such region is considered to be a middle-sized region...(OECD Rural Policy Reviews: Germany. Paris: OECD Publishing, 2007, 200 p, p.31.) In general, the American economist J.Makal has included the following factors limiting the development of rural areas (Magill, John (2003), "Rural Economic Development" in Sammis B. White, Richard D. Bingham and Edward W. Hill (eds.), Financing Economic Development in the 21st Century, M.E. Sharpe, Inc., New York, pp. 266-276.):

- Great distance to markets;
- Individual meetings of people living in rural areas (these meetings differ in comparison with towns);
- Limited access to capital (low competition among the rural lenders causes the capital price to be high);
- Limited scalability capabilities;
- Limited network of entrepreneurs;
- Deficiencies in information and business services;
- Restrictions on the relationships of rural economies with the rest of the economy;
- Lack of qualified personnel.

The above mentioned bring the state promotion of rural development to the fore. Also, agriculture is a key element of rural livelihood and is closely linked to other economic, environmental and social development forces in these regions. From this point of view, the development of agriculture affects the well-being of the rural population. In 2012, 37.7 percent of the employed population accounted for agricultural, fishing and forestry, whereas those employed were 38.4 percent of those living in rural areas. Also, about 59.1 percent of the working-age population living in rural areas operated in this area. In 2012, the economically active population in the country was 50.4 percent of the total population. Given these figures, estimates show that around 76 percent of the economically active population in rural areas are involved in agriculture, fishing and forestry. It should be noted that in the countries included in the Organization for Economic Cooperation and Development, only 10% of existing labor resources in rural areas are engaged in agriculture and forestry, and their support is needed (The New Rural Paradigm: Policies and Governance. Paris: OECD Publishing, 2006,168 p, p.13.). At the same time, income per capita in agriculture is typically lower than in other sectors of the economy. So in 2012, an average of about 135 AZN added value was created per month for a person engaged in agriculture, fishing, and forestry, then we come to the conclusion that in rural areas income from employment is relatively small. From this point of view, the state is required to support rural areas as well as agriculture. The measures to support the development of the agricultural sector are multilateral. Thus, the development of the agricultural sector affects food security, raw material supply, and ecological status. Thus, in 2012, 55.1% of the country's land was used for agricultural purposes, and 29.9% of these land areas were irrigated lands. From this point of view, agriculture has the potential to reduce land quality and to seriously affect water pollution.

In such circumstances, policies for agricultural development should include environmental protection and biodiversity conservation. Also, since rural areas are at a distance from major markets, due to the low concentration in these places, infrastructure density and development levels are low, thus causing additional costs comparing to urban areas. Therefore, it is necessary to provide a state support to the development of rural areas, especially the agricultural sector. A modern approach to rural development envisages the implementation of large-scale investment projects, along with granting subsidies to the development of regions dominated by agriculture. These investments are made in order to create favorable conditions for living in the regions and to increase their competitiveness. This is related to the provision of necessary production and social infrastructure to rural areas. Also, the competitiveness of the agricultural sector depends largely on the development of the fields serving this area and staffing. In this regard, establishment of warehouses in the regions, agro-services serving agriculture, improving the quality of veterinary and phytosanitary services, seeds, fertilizers and pesticides, development of necessary sales channels, such as the organization of information and communication services for agricultural producers, are factors that determine the competitiveness of the agricultural sector. Development of agricultural products processing industry in regional centers and rural areas plays an important role in the provision of developing rural areas. There are great opportunities for the development of the food industry in the republic. Thus, in 2012, the volume of production of food products, including beverages, amounted to about 25 percent of the 1990 level and this decline was mainly due to a decrease in the production of export-oriented food products. Also, the complex processing of raw materials in the food industry is of crucial importance. Thus, in the processing of agricultural raw materials, products and production waste are also obtained along with the main product. For example, except for meat products, the waste of cut animals - hair, nails, horns, bones, gut, blood, etc. are also obtained in meat production. These waste products are used in various types of products (combinations, buttons, brushes, musical instruments etc.) and more than 40 medicines, animal feeds and so on. can be produced by using these wastes. The absence of waste recycling facilities reduces the efficiency of production. Therefore, the complex development programs for separate areas of food products should be developed in the republic, and this program should take into account the processing stages of agricultural raw materials. In general, the development of small and medium-sized businesses on the basis of administrative district centers is crucial for the creation of developmental poles in the country. Meanwhile, the specialization of agricultural products in separate regions, the creation of specialized warehouses, transportation economies and processing facilities can play an important role in the development of the regions. Along with the food industry, there are available opportunities for the development of light industry, mechanical engineering and metallurgy industry, building materials industry in the regions. It should be noted that the development of local raw materials based on the "State Program on socio-economic development of the regions of the Republic of Azerbaijan in 2014-2018" has been identified as a priority in this area. Nevertheless, it would be expedient to further define industry development opportunities within the framework of the mentioned program. In our view, it is required to conduct research in the following areas to identify industry development trends:

- available natural resources and their estimated quantities in the country;
- structure and volume of agricultural production;
- volume of future demand for certain consumer products;
- volume of import;
- successfully developing industries in countries with similar volume and structure of existing financial, labor and natural resources;
- possible interaction of the existing fields in the country with local and foreign related areas;

- opportunities for development based on vertical or horizontal integration of existing production;
- possible diversification of existing production;
- capacity to increase production volumes due to the scale of production.

It should be noted that there are limited opportunities for the development of many areas of industry at the expense of only domestic market. Only industrial products that are oriented to the domestic market ultimately lose capacity to scale-up and are not competitive in the long term. Therefore, it is possible to develop the country's industrial potential by creating relatively large industrial companies. At present, the creation of such industrial companies in the country is mainly possible with state participation and financial support. In such circumstances, certain actions can be taken in specializing in certain industries of separate regions in the country. In recent years, the black and non-ferrous metallurgy industry in the country has been primarily developed in the Ganja-Gazakh economic region. In our opinion, while the areas of food and light industries are mainly developed in line with their specialized agricultural products in the regions, it is advisable to develop industrial production based on raw materials and employment factors. The role of staff in achieving success in the above-mentioned direction is crucial. Therefore, the training of staff and raising their knowledge and skills in the country should be one of the main directions of government policy. In recent years, state funding of education in foreign countries, the development of vocational education and etc. steps are among the measures taken in this direction. Nevertheless, the development of separate regions should be clearly defined and the training of personnel in these areas should be financed.

4. CONCLUSIONS

Thus, direct and indirect financial support of the state is required in these areas. Determination of the role of the state in the financing of socio-economic development of the regions is also made based on the evaluation of the opportunity to participate in this development of the private sector. Thus, regional policy in Azerbaijan is aimed at raising competitiveness in the regions, creating new jobs and increasing social security. Measures in this direction cover both economic and social and environmental issues. Since 2004, regional development programs in Azerbaijan have led to an increase in the overall level of development of the regions, but did not substantially reduce the difference between Baku and other regions due to the level of income. Meanwhile, five-year regional development programs implemented since 2004 have played a crucial role in mobilizing financial resources and promoting regional development.

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STATISTICAL SIGNIFICANCE OF FACTORS INFLUENCING TERRORISM IN PAKISTAN

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ABSTRACT

Pakistan is severely suffering from terrorism which have shaken its social fabric, shackled political system and frightened the public. This article provides an empirical investigation of the determinants of terrorism in Pakistan. Principally, the factors affecting terrorism was explored involving in terrorism adaptation by the peoples. The study was conducted in Faisalabad and Rahim Yar Khan and data thus obtained was subjected to logistic regression. Sociological studies using logistic regression models to analyze data in which the outcome variable has two discrete categories, classically referred to as a 'binary' outcome. Through standardized regression analysis, the factors contributing positively or negatively were identified to a change of state leading to potential terrorist activities. Results showed that education, age, radicalization, un-employment, extremism are the major factor affecting the terrorism. The anti-terrorism organization and Government efforts were found to be non-effective for eradication/stopping terrorism. The results revealed that geographic factors are also important to flourish the terrorist activities. Therefore, these identified potential factors should be taken into account in the prevention of terrorism activities in future.

Keywords: *Terrorism, Logistic Regression, Region, Anti-terrorism Organization*

1. INTRODUCTION

The base of the creation of the world is love and kindness. The loveable creatures and colors of world with enormous affection are created by ALLAH. Unluckily, people did not understand the purpose of this world and passing of days destruction have become the fashion. Today, Pakistan is facing severe terrorism problems. Terrorism has become the fashion of the day and a serious threat for the federation and public as well. Its roots have penetrated deeply into the external and internal boundaries of Pakistan. Although, it is a worldwide problem, but Pakistan has been affected terribly. Contribution of Pakistan in the war against terrorism has made the situation more violent (Khan, 2013). Pakistan involved as a front player in the international war of terrorism after 9/11. Pakistan does not only cover geopolitical position, it also becomes a nuclear power. There is large level of supposition that nuclear weapons could put into the hand of religious extremists. Pakistan has also become the central part of radical Islamic creed and its terrorist supporter. Elements of Islamic organization are attracted and central issue in Pakistan that the relations with United States and other dominant competitor created the fight of terrorism.

It is reported that warning is not important but terrorism posits a warning to the Pakistan security and international society and the main reasons are politic, social and economic issues. Jailing or killing terrorists, only the sign and not the sickness act as a part of terror war (Murphy and Malik, 2009). Crenshaw (1988) suggested principles of social cognition apply both to organizations and terrorists individually and concluded that "the actions of terrorists are based on a subjective interpretation of the world rather than objective reality. The foreign transit agencies experienced the destructive cost of terrorist acts like World Trade Center bombing. The phenomenon's behind the generation of terrorists with respect of psychological dimension of terrorism also highlighted and it was also reported that there is a broad spectrum of terrorist groups and organizations (Post, 2001). Daniel (2002) believed that poverty was blamed for terrorism got repeated so frequently by so many that few people question that it was truth. Pine *et al.* (2005) reported that psychological factors not only contribute to the adoption of terrorism, but also decreased the mentality level of children and also responsible for terrorism activities. Steen *et al.* (2006) found that at national level confrontations of terrorism might have spillover results that could harm other countries. Asal *et al.* (2008) studied factors to pushing families to join Jihad. Keeping in view that such groups will pay off their families in case they expired like poverty, more sons, qualified but have no job, more religious, connection with militant, head of house especially whose sons were educated in Madrassahare are involved in terrorist's activities. Irshad (2011) narrated that 9/11 incident created a strongest effect on universe in terms of organization and technologies and is responsible in developing and enlarging the terrorism activities. In this article, the factors such as social, emotional, behavioral, religious and economic were considered to appraise their relationship with terrorism in Pakistan and to describe the anti-terrorism organization and Government role in controlling and stopping the terrorism and special attention was focused on whether gender, education, age, geographically and social activities are related to terrorism and highlighted the most important factor which pushes the people in terrorism adaptation.

2. MATERIAL AND METHODS

The study was conducted in Faisalabad and Rahim-Yar-Khan area. A structured pre-defined questionnaire was developed and all the possible risk factors were included. A random sample of 300 respondents from two cities were selected through simple random sampling technique (150 from each city) using equal allocation sampling technique. Furthermore, the data was collected from different areas (residential, market and institutes). Different risk factors such as age, gender, regions, education and religiosity were considered. Most of the variables in this data set were binary in nature while some have more than two categories. When dealing with several competing models, the relative quality of each model must be considered. The quality of a model, as measured by its goodness of fit to the data, may be tested using either of two chi-square statistics as shown below, where O_{ij} = observed frequency and E_{ij} = expected frequency

$$\chi^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Logistic regression is a type of regression analysis used for predicting the outcome of a categorical (a variable that can take on a limited number of categories) based on one or more predictor variables. Logistic regression could be bi- or multinomial. Binomial or binary logistic regression refers to the instance in which the observed outcome can have only two possible types (e.g., "dead" vs. "alive", "success" vs. "failure", or "yes" vs. "no"). Multinomial logistic regression refers to cases where the outcome can have three or more possible types (e.g., "better1 vs. "no change" vs. "worse"). Generally, the outcome is coded as "0" and "1" in binary logistic regression as it leads to the most straightforward interpretation.

Logistic regression analysis studies the association between a categorical dependent variable and a set of independent (explanatory) variables. Logistic regression competes with discriminant analysis as a method for analyzing discrete response variables was used. In fact, the currently logistic regression is more versatile and suited for most situations than is discriminant analysis because it did not assume that the independent variables arc normally distributed (Agresti, 1996).

3. RESULTS AND DISCUSSION

The variables selected for association estimation were education, gender, region with 11 important variables. The results regarding gender and response of a respondent are shown in Table 1. The respondent response showed that it did not depend upon his/her gender. Among all respondent, 34.0%, 63.0% and 3.0% revealed strong, moderate and religiosity level, respectively**.** Regarding personality, the gender and response of a respondent were independent. Does Islam support terrorism; gender and response of a respondent were again independent. Regarding age, the response of respondent was significant and 7.0% respondents revealed that under age 10 year, 51.3% revealed 16year age, 40.3% respondents' response was under 30-year age. Gender and response of a respondent were independent and response did not depend upon gender. In response of terrorism made an impact on your community, 54.0% responses were great deal, 27.33% to some and 13.0% response was only a little impact. Government has done anything to prevent terrorism, 66.0% responses were yes and gender and response of a respondent were dependent. Regarding economy, 8.0% male response was poverty, 7.3% male response was unemployment and 24.0% say weak mind susceptible of brainwashing and gender response was independent. Regarding education, 34.3% respondents agreed, 11.7% were strongly agreed, 31.0% were disagree and 23.0% respondents disagreed strongly to question those people who interest in Islamic study are lead to terrorism. Children involvement response showed that 13.7% orphans, 10.7% sensitive, 35.0% poor and 40.7% respondents responses were mental disturb and get involved in terrorism activities. A 94.7% respondent response was yes that terrorism flourished wrong image about Islamic values and in response of how the terrorism can be reduced in Pakistan, 51.0% responses were revealed by spreading Islamic education, 18.0% making the justice system and 30.0% response were that by increasing educational level overall, the terrorism can be reduced. The responses related to educations of respondent are given in Table 2. The responses of respondent depend upon their education, 34.0% responses were strong, 58.0% moderate and 0% responses were weak religiosity level and education and response of a respondent were independent. In response of question, does Islam support terrorism, 89.3% respondent revealed that education and response of a respondent were dependent. Therefore, response of a respondent depends upon their education. Regarding age, 7.0% educated respondents revealed age under 10-year, 45.0% age under 16 year and 38.70% age under 30 years. A 54.0%, 27.3% and 13.0% respondent's response were great deal, to some extent and little, respectively in response of terrorism impact on community. In view of government counterterrorism activity, 64.3% educated respondents were satisfied. For poverty, unemployment, weak mind susceptible and brain washing, the responses were 14.3%, 13.3%, 61.0% and 3.33%, respectively and response were also dependent to education level. In response of question that Islamic study are lead to terrorism, 29.7%, 11.7% 27.7% and 23.0% respondent were agreed, strongly agree, disagree**,** and strongly disagree, respectively. Therefore, the responses were dependent to education level. A 13.7% educated respondents revealed that orphans**,** 9.0% sensitive, 30.3% poor**,** and 39.7% mentally disturb people are susceptible to terrorism and education and response of a respondent were independent and 94.7% respondents revealed that terrorism flourished wrong image about Islamic values. Regarding terrorism eradication, 48%, 18% and 26% responses revealed that it can be reduced by spreading Islamic education, making justice system and by increasing overall educational,

respectively. The results regarding region and response of a respondent are shown in Table 3 and it was found that the response of respondent did not depend upon their regions and 34.0% respondents showed strong, 63.0% moderate and 3.0% weak religiosity level**.** In response of question that do you feel personally that terrorism is an issue and response regarding region were found independent. An 89.3% respondent response was that Islam did not support terrorism. Regarding age, 7.0% respondent's revealed age under 10 year, 51.3% 16 year and 40.3% response were age under 30 year and region wise responses were independent. Regarding terrorism impact on community, 54.0% revealed a great deal, 27.3% to some extent and 13.0% response revealed only a little impact and 66.0% respondents were satisfied with Government to control terrorism. A 19.3% educated respondents revealed the terrorism reason is poverty, 16.3% unemployment and 61.0% weak mind susceptible of brainwashing and region and response of a respondent were independent. Among total respondent, 34.3% were agree, 11.7% strongly agree, 31.7% disagree and 23.0% were strongly disagree that Islamic study lead to terrorism. Among children involved in terrorism, 7.3% responses were orphans, 3.0% sensitive, 16.0% poor and 23.7% mentally disturb and region and response of a respondent were independent. A 94.7% respondent agreed that terrorism flourish wrong image about Islamic values and 51.3% revealed by spreading Islamic education, 18.0% making the justice system and 30.7% revealed that increasing educational level the terrorism can be reduced from the society.

3.1. Logistic Regression Analysis of respondents

The binary logistic regression was used because the dependent variable has two categories. To fit the logistic regression model 11 predictor variables were used. For this purpose, binary logistic regression was used because the dependent variable was of two categories. To explore the terrorism factors, the logistic regression model was fitted using 11 predictor variables e.g. the question does you feel that personally and terrorism is an issue, was taken as dependent variable with 11 questions. Associated probabilities in the Wald statistic provided an index of significance of each predictor in the model. The Wald statistic was distributed as chi-square distribution and finally, *P*-values were considered to evaluate the significance of the studied parameters. Results based on analysis revealed that the ages of people involved in terrorism were in the range of 10-30 years which were further divided into two categories; I) 10-16 year and II) 16-30 year which indicates that young people involved frequently in terrorism activities as compare to a person of age above than 30 which shows that the terrorism agencies de-tracked these young people emotionally. Secondly, it was observed that the uneducated people involved in terrorism more actively which indicated that uneducated people can easily be de-tracked and involved in these negative activities. The major factor behind these types of terrorism (young and uneducated people) and poverty, depression, hopeless and imbalance might be the main reason. Other factors which are also a cause of terrorism include Government efforts. It is observed that government efforts to stop terrorism have been failed totally. Furthermore, it is also observed that people having interest in Islamic study are easily motivated for terrorism on the name of Jihad by different terrorism organizations.

4. CONCLUSION

This study has concerned the public opinion of urban resident (institutes, general market and resident) of Rahim Yar Khan and Faisalabad in an effort to identify the significant factors that influence the terrorism. Further, people opinion about Government and counterterrorism organization were also taken into account. Data obtained analyzed using statistical techniques and provided critical interpretation based on the analysis. It is evident that education, age, radicalization, media, unemployment, mental disturbance and extremism are significant factors in adopting terrorism activity.

Furthermore, Jihad on the name of Islam is also a major factor. Moreover, the Government and anti-terrorism organizations are inefficient/non-serious to stop terrorism.
Hence the government may choose to act in this direction by restricting the perceived factors responsible in terrorism spreading. The Government should also manage the Islamic institute according to Islamic values. There is also need to educate people and government should create job opportunities for young people which might be helpful in preventing terrorism.

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APPENDIX

Table 1: Descriptive Statistics for Gender

Association	**Gender**		
	Male	**Female**	**Total**
Religiosity *(χ^2= 0.371, p-value = 0.831)*			
Strong	14.3%	19.7%	102
Moderate	27.3%	35.7%	189
Weak	1.0%	2.0%	9
Personally that terrorism is an issue? *(χ^2= 0.089, p-value = 0.765)*			
No	10.0%	11.0%	63
Yes	32.7%	46.3%	237
Does Islam support Terrorism? *(χ^2= 0.017, p-value = 0.896)*			
No	38.0%	51.3%	268
Yes	4.7%	6.0%	32
Which age of people involved in terrorism? *(χ^2=2.650, p-value=0.449)*			
Under 10 age	2.7%	4.3%	21
Under 16 age	20.3%	31.0%	154
Under 30 age	19.3%	21.0%	121
Under 50 age or above	0.3%	1.0%	4
Have acts of terrorism made an impact on your community? *(χ^2=3.411, p-value=0.332)*			
A great deal	21.3%	32.7%	162
Somewhat	14.0%	13.3%	82
Only a little	5.0%	8.0%	39
Not at all	2.3%	3.3%	17
Do you feel the government has done anything to prevent terrorism? *(χ^2=0.752, p-value=0.386)*			
No	13.3%	20.7%	102
Yes	29.3%	36.7%	198
Among these which is the reason of terrorism? *(χ^2=14.402, p-value=0.002)*			
Poverty	8.0%	11.3%	58
Unemployment	7.3%	9.0%	49
Impurity	3.3%	0.0%	10
Weak mind susceptible of brainwashing	24.0%	37.0%	183
Those people who interest in Islamic study are lead to terrorism? *(χ^2=5.869, p-value=0.118)*			
Agree	13.7%	20.7%	103
Strongly agree	8.7%	14.3%	35
Disagree	16.3%	14.7%	93
Strongly disagree	8.7%	14.3%	69
Which types o children are involved in it? *(χ^2=0.363, p-value=0.948)*			
Orphans	5.3%	8.3%	41
Sensitive	4.3%	6.3%	32
Poor	15.3%	19.7%	105
Mental disturb	17.7%	23.0%	122
Has terrorism flourished wrong image about Islamic values? *(χ^2=0.184, p-value=0.668)*			
No	2.0%	3.3%	16
Yes	40.7%	54.0%	284
How terrorism can be reduced in our society? *(χ^2=1.030, p-value=0.598)*			
By spreading Islamic education	23.3%	28.0%	154
By making the justice system	7.0%	11.0%	54
By increasing educational level	12.3%	18.3%	92

Table following on the next page

Table 4: Descriptive Statistics for Education

Association	Education		
	No	Yes	Total
Religiosity *(χ^2= 112.371, p-value = 0.000)*			
Strong	0.0%	34.0%	102
Moderate	5.0%	58.0%	189
Weak	3.0%	0.0%	9
Personally, that terrorism is an issue? *(χ^2= 0.353, p-value =0.553)*			
No	1.3%	6.7%	63
Yes	19.7%	72.3%	237
Does Islam support Terrorism? *(χ^2= 3.115, p-value =0.078)*			
No	8.0%	0.0%	268
Yes	81.3%	10.7%	32
Which age of people involved in terrorism? *(χ^2=8.570, p-value=0.036)*			
Under 10 age	0.0%	7.0%	21
Under 16 age	6.3%	45.0%	154
Under 30 age	1.7%	38.7%	121
Under 50 age or above	0.0%	1.3%	4
Have acts of terrorism made an impact on your community? *(χ^2=6.921, p-value=0.074)*			
A great deal	4.7%	49.3%	162
Somewhat	3.3%	24.0%	82
Only a little	0.0%	13.0%	39
Not at all	0.0%	5.7%	17
Do you feel the government has done anything to prevent terrorism? *(χ^2=23.716, p-value=0.000)*			
No	6.3%	1.7%	102
Yes	27.7%	64.3%	198
Among these which is the reason of terrorism? *(χ^2=49.081, p-value=0.000)*			
Poverty	5.0%	14.3%	58
Unemployment	3.0%	13.3%	49
Impurity	0.0%	3.3%	10
Weak mind susceptible of brainwashing	0.0%	61.0%	183
Those people who interest in Islamic study are lead to terrorism? *(χ^2=14.377, p-value=0.002)*			
Agree	4.7%	29.7%	103
Strongly agree	0.0%	11.7%	35
Disagree	3.3%	27.7%	93
Strongly disagree	0.0%	23.0%	69
Which types o children are involved in it? *(χ^2=12.674, p-value=0.005)*			
Orphans	0.0%	13.7%	41
Sensitive	1.7%	9.0%	32
Poor	4.7%	30.3%	105
Mental disturb	1.7%	39.0%	122
Has terrorism flourished wrong image about Islamic values? *(χ^2=1.470, p-value=0.225)*			
No	0.0%	8.0%	16
Yes	5.3%	86.7%	284
How terrorism can be reduced in our society? *(χ^2=11.682, p-value=0.003)*			
By spreading Islamic education	3.3%	48.0%	154
By making the justice system	0.0%	18.0%	54
By increasing educational level	4.7%	26.0%	92

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Table 5: Descriptive Statistics for Regions

Association	Regions		
	FSD	RYK	Total
Religiosity *(χ^2= 5.719, p-value =0.057)*			
Strong	19.0%	15.0%	102
Moderate	28.7%	34.3%	189
Weak	2.3%	0.7%	9
Personally that terrorism is an issue? *(χ^2= 0.000, p-value = 1.000)*			
No	0.7%	0.7%	4
Yes	49.3%	49.3%	296
Does Islam support Terrorism? *(χ^2= 0.560, p-value = 0.454)*			
No	45.3%	44.0%	268
Yes	4.7%	6.0%	32
Which age of people involved in terrorism? *(χ^2=1.964, p-value=0.580)*			
Under 10 age	4.3%	2.7%	21
Under 16 age	26.3%	25.0%	154
Under 30 age	18.7%	21.7%	121
Under 50 age or above	0.7%	0.7%	4
Have acts of terrorism made an impact on your community? *(χ^2=3.948, p-value=0.267)*			
A great deal	25.3%	28.7%	162
Somewhat	15.3%	12.0%	82
Only a little	7.3%	5.7%	39
Not at all	2.0%	3.7%	17
Do you feel the government has done anything to prevent terrorism? *(χ^2=2.911, p-value=0.088)*			
No	19.3%	14.7%	102
Yes	30.7%	35.3%	198
Among these which is the reason of terrorism? *(χ^2=17.329, p-value=0.001)*			
Poverty	12.7%	6.7%	58
Unemployment	10.3%	6.0%	49
Impurity	2.3%	1.0%	10
Weak mind susceptible of brainwashing	24.7%	36.3%	183
Those people who interest in Islamic study are lead to terrorism? *(χ^2=2.045, p-value=0.563)*			
Agree	15.7%	18.7%	103
Strongly agree	6.3%	5.3%	35
Disagree	17.0%	14.0%	93
Strongly disagree	11.0%	12.0%	69
Which types o children are involved in it? *(χ^2=10.395, p-value=0.015)*			
Orphans	6.3%	7.3%	41
Sensitive	7.7%	3.0%	32
Poor	19.0%	16.0%	105
Mental disturb	17.0%	23.7%	122
Has terrorism flourished wrong image about Islamic values? *(χ^2=1.056, p-value=0.304)*			
No	2.0%	3.3%	16
Yes	48.0%	46.7%	284
How terrorism can be reduced in our society? *(χ^2=0.278, p-value=0.870)*			
By spreading Islamic education	26.3%	25.0%	154
By making the justice system	9.0%	9.0%	54
By increasing educational level	14.7%	16.0%	92

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Table 6: Estimates Parameters of significant factor affecting terrorism

Parameter	*B*	Std. Error	Hypothesis Test		
			Wald	df	P-Value
Intercept	-0.031	2.2195	0.000	1	0.989
Which age of people involved in terrorism			**6.416**	**3**	**0.093**
Under 50 age or above	18.856	39730.9966	0.000	1	1.000
Under 30 age	2.136	0.9493	5.064	1	0.024
Under 16 age	2.492	0.9838	6.415	1	0.011
Under 10 age	0[a]	.	.	.	.
Government's anti-terrorism efforts have affected your area			16.097	3	0.001
Not at all	2.144	1.0141	4.469	1	0.035
Only a little	2.918	1.2767	5.223	1	0.022
Somewhat	4.156	1.1009	14.252	1	0.000
A great deal	0[a]	.	.	.	.
Government has been effective in stopping suspected terrorists			**16.882**	**3**	**0.001**
Not at all effective	1.756	1.3957	1.584	1	0.208
Not too effective	-3.235	1.1324	8.161	1	0.004
Somewhat effective	-3.800	0.9959	14.562	1	0.000
Very effective	0[a]	.	.	.	.
Radicalization is the reason to push the people into terrorism			**1.700**	**1**	**0.192**
No	0.709	0.5439	1.700	1	0.192
Yes	0[a]	.	.	.	.
Media is right to suggest a link between Islam and terrorism			4.962	1	0.026
No	-2.220	0.9964	4.962	1	0.026
Yes	0[a]	.	.	.	.
Which is the reason of terrorism			**3.126**	**3**	**0.373**
Weak mind susceptible of brainwashing	1.192	0.9005	1.753	1	0.185
Impurity	26.287	24814.8816	0.000	1	0.999
Unemployment	1.576	0.9039	3.040	1	0.081
Poverty	0[a]	.	.	.	.
Terrorism is due to the poor government			**5.638**	**3**	**0.131**
Strongly disagree	2.443	1.0531	5.380	1	0.020
Disagree	-0.087	0.5175	0.028	1	0.867
Strongly agree	-0.253	0.5406	0.220	1	0.639
Agree	0[a]	.	.	.	.
People who interest in Islamic study are lead to terrorism			**1.700**	**1**	**0.192**
Strongly disagree	1.130	0.8943	1.596	1	0.206
Disagree	-0.465	0.5378	0.747	1	0.387
Strongly agree	-2.754	1.2055	5.220	1	0.022
Agree	0[a]	.	.	.	.
People involved in terrorism			**9.529**	**1**	**0.002**
Uneducated	2.030	0.6577	9.529	1	0.002
Educated	0[a]	.	.	.	.
Children are involved in it			**4.862**	**3**	**0.182**
Mental disturb	1.445	0.7214	4.014	1	0.045
Poor	0.655	0.7518	0.758	1	0.384
Clever	-0.032	1.0522	0.001	1	0.976
Sensitive	0[a]	.	.	.	.
Extremism lead toward terrorism			**4.195**	**1**	**0.041**
No	-2.949	1.4396	4.195	1	0.041
Yes	0[a]	.	.	.	.

DEVELOPMENT OF COMPETENCE MODEL FOR INDUSTRY 4.0: A THEORETICAL APPROACH

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ABSTRACT

Technological advances have caused dramatic increases in industrial productivity since the emergence of the Industrial Revolution. Although Industrial Revolution creates many new opportunities for companies, at the same time it causes many challenges arising from the ongoing automation and digitization of organizations. The latest changes, such as digitalization and robotics, have revolutionized the nature of work and created a demand for new set of skills to navigate the fourth industrial revolution i.e. Industry 4.0 However, the biggest challenge isn't technology; the focus is on the people. While digital technologies are rapidly becoming a commodity, success largely depends on companies and their employees. In order to face those challenges successfully, companies have to maintain a well qualified workforce. Hence, the purpose of this paper is to highlight the significance of human resource management in frame of Industry 4.0 revolution. The Industry 4.0 revolution has been driven by humans using creative minds to solve problems that were confronted. Moreover, Industry 4.0 is characterized by Cyber-physical systems (CPS), Internet of Things (IoT), Internet of Service (IoS), and Smart Factory and many more technologies that will require organizations with specific expertise. Therefore, the focus is on identifying competencies that are needed to fit well in Industry 4.0 revolution. The main theoretical contribution of this paper is a starting-point for further research of employee's competencies for Industry 4.0. In addition, the given preview of competence models will be useful for creating job descriptions that can ensure the survival of contemporary companies in the era of digitalization. According to identified relevance of competences, future research should focus on the development appropriate competence model and education system, which will fulfill the perceived gap in current practice.

Keywords: *Competence, Competence model, Competence development, Industry 4.0, Internet of Things*

1. INTRODUCTION

The industrial sector plays a crucial role in every economy, serving as a key driver of economic growth (e.g. job creation) and accounting for 75% of all exports and 80% of all innovations (Hofmann & Rüsch, 2017, pp 24). In the past, the industry was affected by technological change and innovation. These paradigms, called industrial revolutions were caused by mechanization (1st industrial revolution), use of electrical energy (2nd industrial revolution) and electronics and automation (3rd industrial revolution) (Lasi, et al., 2014). All these industrial revolutions did not influence only the production itself, but also the labor market and the educational system as well, which is the reason because some professions and jobs disappeared (Benešová & Tupa, 2017, pp. 2195). Due to the development of digitalization and robotics, we are facing the 4th Industrial revolution, i.e. industry 4.0 (Lasi, et al., 2014; De Man & Strandhagen, 2017). Originally initiated in Germany, Industry 4.0, the fourth industrial revolution, has attracted much attention in recent literature.

The fourth industrial revolution not only disturbs the sustainability of current industrial systems, but may also provide tremendous industrialization growth (Liao et al., 2017, pp. 3610). Consequently, human operators experience an increased complexity of their daily tasks; they are required to be highly flexible and to demonstrate adaptive capabilities in very dynamic working conditions (Longo et al., 2017, pp 144). In addition, some professions will be replaced. Moreover, only qualified and highly educated employees will be able to control new technologies. The main vision the following of Industry 4.0 is the emergence of "smart factories", that will be connected to the production facilities Cyber-physical systems called CPS (Lee, et al., 2015, pp.18-20). Using of the Internet of Things, the Internet of Services and the Internet of People will make following connections: machine-machine, human-machine or human-human, and at the same time an enormous amount of data will be obtained (Benešová & Tupa, 2017, pp. 2196). Nowadays, companies face sustainability challenges, and technological advancements in digitalization and automation. However, the biggest challenge of industrial leaders isn't technology – the focus is on the people. Radical changes aren't always comfortable for the people who make it happen, so change management plays critical role. Also, IT skills are becoming a core capability for every industrial company, so enhancing skills and organizational structures will be required. Lack of skills or competencies in the company's workforce is also the biggest challenge. Some companies also indicate that external partnerships have a role to play, through the provision of technology or training, and a minority of companies (18%) expects to use M&A to acquire outside companies (Geissbauer, et al., 2016). Last but not least, customers require an increasing number of personalized products in variable volumes. This trend requires a radical change in the design and management of production systems (Cohen, et al., 2017, pp. 14962). In order to face those challenges successfully, companies have to maintain a well qualified workforce. Many manufacturing companies are not ready to manage big data due to the lack of smart analytic tools (Lee, Kao, & Yang, 2014, pp. 3), and they need to understand how they can employ technologies in new use cases to offer the greatest benefits to their customers (Lee, et al., 2015, pp. 19, Rüßmann, et al., 2015, pp. 12). Although technological tools and their implementation is relevant, producers have to set priorities among their production processes and enhance their workforce's competencies. According to identified research issue, this paper aims to present the development of a competence model. First of all, it is important to reveal the key components and challenges of Industry 4.0 revolution, and to explore the effects, especially in the field of HRM and Human resources development. The focus is on social issues, including the future competencies, so the following research questions will be answered: What are general challenges companies will have to face in Industry 4.0? How do those challenges influence existing and future jobs as well as their related workflows? Which core competencies must employees possess in order to fulfill their current or future job? How can the competence model help a company to maintain a well qualified workforce?

2. INDUSTRY 4.0 EMERGENCE AND KEY COMPONENTS

The industrial environment discontinuously evolved over the centuries. As a matter of fact, discontinuities are identified by disruptive leaps in manufacturing processes resulting in remarkably higher productivity. As a consequence of these discontinuities, we have four industrial revolutions. According to Lukac (2015; referenced by Lu, 2017, p. 1), the first industrial revolution started at the end of the 18th century and is was represented by mechanical production plants based on water and steam power; the second started at the beginning of the 20th century with the symbol of mass labor production based on electrical energy; the third began in the 1970s with the characteristic of automatic production based on electronics and internet technology; and the fourth namely Industry 4.0, is ongoing, with the characteristics of cyber physical systems (CPS) production, based on heterogeneous data and knowledge integration (Lu, 2017, pp. 1).

The economic impact of this industrial revolution is supposed to be huge, as Industry 4.0 promises substantially increased operational effectiveness and the development of entirely new business models, services, and products (Mario, et al., 2015). The term Industry 4.0 was publicly introduced at the Hanover Trade Fair in 2011, presented as part of Germany's high tech strategy, which will enable to prepare and strengthen the industrial sector in order to deal with future production challenges (Hofmann & Rüsch, 2017, pp. 24). Industry 4.0 is currently a top issue for many companies, research centers, and universities, but a generally accepted definition does not exist. In the line with previous findings, scholars have tried to define Industry 4.0 from diverse perspectives. Henning (2013) define Industry 4.0 as "a new level of value chain organization and management across the lifecycle of products." As a matter of fact, the concept of Industry 4.0 depicts the increasing digitization of the entire value chain and the resulting interconnection of people, objects and systems through real time data exchange. Accordingly, the result of that interconnection, products, machines and processes are equipped with artificial intelligence and get enabled to adapt to spontaneous changes of the environment independently (Hecklau, et al., 2016, pp. 2). In order to contribute to this field of research, Hermann et al. (2016 referenced by Hofmann & Rüsch, 2017, pp. 24-25) identified four Industry 4.0 key components:

1. Cyber-physical systems (CPS) is a fusion of the physical and the virtual worlds. Shafiq et al. (2015, referenced by Lu, 2017, pp. 4) defines CPS as "the convergence of the physical and digital worlds by establishing global networks for business that incorporate their machinery, warehousing systems and production facilities".
2. Internet of things (IoT) represents the network architecture for a massive digitalization of various areas of life (Neugebauer, et al., 2016, pp. 3). It consists machines and equipment, networks, the cloud, and terminals, which can be used for offering specific and personalized products, and users are enable to customize products via web pages. After that, web servers transmit data to the industrial cloud and plants via wired or wireless networks. Based on the received data, the manufacturer will integrate design, and will optimize, manage, and monitor the production process in order to produce products efficiently (Lu, 2017, pp. 6).
3. Internet of services (IoS) enables "service vendors to offer their services via the internet. Services are offered and combined into value-added services by various suppliers; they are communicated to users as well as consumers and are accessed by them via various channels" (Buxmann, Hess, & Ruggaber, 2009, pp. 341).
4. Smart factory is defined as "a factory that context-aware assists people and machines in execution of their tasks. This is achieved by systems working in background, which are called Calm-systems and are used to accomplish the tasks based on information coming from physical and virtual world. The main difference between calm and other types of systems is the ability to communicate and interact with its environment" (Lucke, Constantinescu, & Westkämper, 2008, pp. 115).

To summarize, Industry 4.0 is a collective term for technologies and concepts of contemporary organization. Using the modular structured Smart Factories of Industry 4.0, CPS monitor physical processes, create a virtual copy of the physical world and make decentralized decisions. Also, over the IoT, CPS communicates and cooperates with each other and humans in real time. Via the IoS, both internal and cross organizational services are offered and utilized by participants of the value chain (Mario, et al., 2015).

3. CONTEMPORARY CHALLENGES

Based on previous review, Industry 4.0 is as a new paradigm of digitized and connected manufacturing, and it plays the important role in transforming established factories into smart and autonomous production (Arnold et al., 2016; Müller et al., 2018, pp. 1).

Generally, Industry 4.0 creates many new opportunities for companies, but at the same time several challenges arising from the ongoing automation and digitization (Hecklau et al., 2016, pp. 3). Currently, Industry 4.0 is a vision for the future, because it involves many aspects, and faces many types of difficulties and challenges, including technological challenges, economic challenges, social problems and political issues (Zhou et al., 2015, pp. 2150-2152).

3.1. Technological challenges

A digital connectivity implies sharing of data and opening up to a competitive market environment, resulting in transparent business ecosystems that are largely facilitated by online platforms. Accordingly, companies have to deal with two issues. First of all, a high level of transparency exposes companies to the risks of cyber-attacks and industrial spying, and the challenge of securing data rights and access. Second, companies that set platform standards may hamper established companies' unique selling propositions and finally drive them out of the market (Zhou et al., 2017). Other challenges refer to lack of global standards and data sharing protocols and poor existing data quality. In order to deal with these challenges, scholars advise companies to reflect and systematically innovate their current business models (Arnold et al., 2016; Brettel et al., 2014).

3.2. Economic challenges

In regard to an ongoing globalization process, companies have to deal with reduced time-to-market, shorter product lifecycles, and the need to cut costs in order to stay competitive. Moreover, markets have become increasingly volatile and heterogeneous (Hecklau, et al., 2016, pp. 3). Industry 4.0 is related to several challenges and takes place in a highly dynamic competitive environment. According to characteristics of Industry 4.0, it is inevitable that the latest industrial revolution reshapes industry boundaries, creates entirely new industries, and exposes established manufacturing companies to new competitive challenges (Müller, et al., 2018, pp. 7). Subsequently, the need for collaboration is more existent than before. Companies now have to enter strategic alliances with their suppliers or competitors to stay competitive. That further leads to the correlation of entire value chains, and as a consequence, increases the complexity of processes (Hecklau, et al., 2016, pp. 3-4) and financial constraints (Luthra & Mangla, 2018).

3.3. Political challenges

Political challenges refer to legal issues and problem of coordination and collaborations (Luthra & Mangla, 2018). Actually, governments need to support organizations with the development of new technologies as well as the integration of those technological tools in the existing environment. In addition, governments have to establish legal parameters for the usage of big data, because the most important concern is the protection of privacy, and data collection will be necessary while interacting with smart objects (Brühl, 2015 referenced by Hecklau, et al., 2016, pp. 3-4). Moreover, growing work flexibility further requires the establishment of regulations for work times and safety to protect employees (Hecklau, et al., 2016, pp. 3-4).

3.4. Social challenges

One of the most influencing challenges is social issues, including the demographic change, employee qualifications, digital skills and their acceptance of new technologies. In the survey in which respondents were asked what the biggest implementation challenge was in the context of Industry 4.0, their answer wasn't the right technology – it was a lack of digital culture and skills in their organization. Companies need to attract, retain, and train their employees who are comfortable working in a dynamic ecosystem environment. Companies' success with Industry 4.0 will depend on skills and knowledge of their employees and their biggest constraints may

be the ability to recruit the people needed to put digitization into place (Geissbauer et al., 2016). The current jobs in manufacturing are facing a high risk for being automated to a large extent, so the numbers of workers will decrease. The remaining manufacturing jobs will contain more knowledge work as well as more short-term and hard-to-plan tasks (Ganschar et al., 2013, referenced by Stock, & Seliger, 2016, pp. 539). The workers increasingly have to monitor the automated equipment, and the decision-making process need to be decentralized, because all employees should participate in engineering activities as part of the end-to end engineering (Stock, & Seliger, 2016, pp. 539). Moreover, younger generations express contrary social values, such as the growing importance of a good work-life balance. That goes in line with the growing employee flexibility due to changes in organizations. However, boundaries need to be set up to restrict the continuous availability of employees, in order to constrain the influence of work life on their private life (Hecklau et al., 2016, pp. 3). Analysis of Industry 4.0's impact on German manufacturing indicates that the growth it stimulates will lead to a 6 percent increase in employment during the next ten years, and demand for employees in the mechanical-engineering sector may rise even more—by as much as 10 percent during the same period. However, a further replacement of simple tasks is expected, whereas tasks such as monitoring, collaboration, and training will still be required (Kiel et al., 2017, referenced by Müller et al., 2018, pp. 3). In the short term, the trend toward greater automation will displace some of the often low-skilled laborers who perform simple, repetitive tasks. At the same time, the growing use of software, connectivity, and analytics will increase the demand for employees with competencies in software development and IT technologies (Rüßmann et al., 2015, pp. 6). New job profiles with novel requirements for training and education are expected to emerge, mostly referring to decreasing importance of manual labor in contrast to IT-skills (Römer & Bruder, 2015, referenced by Müller et al., 2018, pp. 3). Additionally, processes are becoming more complex, which leads to an increase of jobs with higher qualifications and a loss in jobs requiring lower qualifications. Therefore, companies need to qualify their employees for more strategic, coordinating and creative tasks with higher responsibilities (Hecklau et al., 2016, pp. 3).

4. DEVELOPMENT OF COMPETENCE MODEL FOR INDUSTRY 4.0

As has been shown, Industry 4.0 is not just about machinery and equipment – people have to be also involved. For instance, there are some companies that have shelled out on remarkably expensive machinery that will remain untouched for months because they cannot find an employee able to operate these. Thus, buying machinery is the easy part, you should recruit the person(s) who'll be able to do something with it. Therefore, employees need to be qualified in order to approach this new technology concept, which is the reason because developing or sourcing employees' qualifications represents a major challenge and obstacle for manufacturers (Kiel et al., 2017; Müller et al., 2018). In the line with previous, this part focuses on indicating a set of competencies required for Industry 4.0. The first definition of competencies was delivered by McClelland, who defined a competency as "a personal trait or set of habits that leads to more effective or superior job performance" (Prifti et al., 2017, pp. 48). Kinkel et al. (2017, pp. 324) defines a competency as "the individual dispositional ability and readiness to act successfully and self-organized when facing novel, unstructured or complex situations or tasks and the ability to develop solutions for future situations". According to Filipowicz (2011) the simplest possible understanding of a competency is interpreting it as a disposition within knowledge, skills and approaches that allow for executing professional tasks at a proper level. Such a notion of a competency means that it is expressed in the readiness for a specific sort of behavior. According to contemporary challenges, requirements for the qualifications and skills of employees will be higher than at present, because the companies will use new technologies and smart media.

The knowledge, qualification framework and staff training will be an essential part of Industry 4.0. Industry 4.0 will not only change the need for technology skills but will also causes a change in the education of workers (Hoppe, 2018). Consequently, the education system will be changed from Education 3.0 to Education 4.0. (Harkins, 2008) which will combine real and virtual world information. Virtual learning environments (VLEs) will be used for high transfer of developed knowledge and skills, and there will be the implementation of augmented reality in the real environment (Benešová & Tupa, 2017). Based on the analysis in various companies, it is possible to categorize competencies into four main groups – Professional, Managerial, Social and Personal competencies (Hecklau et al., 2016; Filipowicz, 2016).

Table 1: List of competencies (Filipowicz, 2016, referenced by Gudanowska, et al., 2018, pp. 68)

Social competencies	*Personal competencies*	*Managerial competencies*	*Professional competencies*
• building a relationship • sharing knowledge and experience identification with the company • communication • customer orientation • teamwork/team collaboration • solving the conflict • cooperation within the company • exert influence	• pursuit of results (entrepreneurship) innovativeness and flexibility • analytical thinking • analytical thinking • self-reliance • decision-making • troubleshooting • thoroughness/reliability • professional development/ readiness to learn • managing each other	• building an efficient organization team building • ability to delegate • motivating • strategic thinking • planning • leadership • project management • team management	• administering/maintaining documentation • negotiating • orientation in business • procedures – knowledge and application • it skills • technical skills • professional knowledge • process management • knowledge of foreign languages

A competence model is a set of desired competencies for a certain task and may also include a description of single competencies as well as indicators to measure performance and outcome (Prifti et al., 2017). Respecting the relevance of Industry 4.0, and its challenges, future competencies were classified in four categories: adequate personal (e.g., willingness to learn), social/interpersonal (e.g., creative problem solving in social settings), action-related (e.g., ability to find practical solutions), and domain-related competencies (e.g., understanding network technologies as well as data analysis and processing) (Müller, J. M., Kiel, D., & Voigt, K. I. (2018).

4.1. Personal competencies

Personal competences consist the ability to learn, to develop an own attitude and ethic value system that a person may possess. In the context of Industry 4.0, employees have to face the fact that their present tasks no longer exist in the future. De facto, the employees' tasks keep on changing rapidly and there is a need to upkeep with the changes in the tasks. In addition, opportunities for a person's own development and the commitment to lifelong learning should be the responsibility of both the individual and the organization. Personal flexibility with respect to work time, work contents, workplaces and mindsets are prerequisites competencies for an agile production, to respond quickly to market need and environmental situations (Agolla, 2018, pp. 44).

However, rather than developing naive technology, devoutness as a critical attitude towards technological developments is a key asset for the future worker and organization in Industry 4.0 revolution (Erol, et al., 2016).

4.2. Social/interpersonal competencies

The significance of interpersonal competencies is based on a fact that organizations are social systems where interactions take place between different players. Therefore, allowing creative activities to be performed in distributed social settings, involving heterogeneous interdisciplinary and inter-organizational teams, require the ability to communicate complex problems in different languages as well (Agolla, 2018, pp. 44-45). Various authors underline social skills like collaboration (Richter, et al., 2015), teamwork (Richter, et al., 2015, Erol, et al., 2016) and compromising (Erol, et al., 2016), combined with emotional intelligence (Prifti et al., 2017). In addition, these skills also play an important aspect in project management (Grimheden & Törngren, 2014), maintaining customer relationships (Hoberg, 2015), customer orientation (Guo, 2015) and creating business networks (Hoberg, 2015). Therefore, managers must build or act as mediators that permit social processes such as mutual decision processes, which is not only within customary organizational borders but also for the whole network (Cabrilo, et al., 2014). Social media play a key role as supporting technology in the Smart Manufacturing and Industry 4.0 revolution (Agolla, 2018, pp. 45). Managers, engineers and workers now have to show literacy, skills, knowledge and abilities with different tastes of technical communication and support systems (Neeliah & Seetanah, 2016).

4.3. Action-related competencies

Action-related competencies can be understood as 'the ability to take individual or socially constructed ideas to action' that transforms dreams into reality in Industry 4.0 revolution (Agolla, 2018, pp. 45). Both managers and workers require strong analytical skills and ability to find domain-specific and practicable solutions without losing the overall goal, which are the key competencies. To accomplish this, therefore, managers must break down complex concepts into realistic work packages, to find and to assign appropriate people and teams. Managers are required to encourage taking new routes but also take into account the risk of failures. For workers and managers alike a strong interdisciplinary "out-of-the box" orientation is likely to facilitate solutions finding in complex environments (Erol, et al., 2016).

4.4. Domain-related competencies

These competences are referred to the ability to access and use domain knowledge for a job or a specific task (Lanza et al., 2015). A core element of Industry 4.0 revolution is the full digitalization of planning and the exploitation of data (Agolla, 2018, pp. 45-46), so the domain or analytical oriented competencies like IT and technology affinity, network administration, data security cloud architectures, programming, in-memory DBs are relevant for the implementation of necessary process. In this area all employees need to bring IT and technology affinity (Erol, et al., 2016; Hoberg, 2015; Hartmann & Bovenschulte, 2013), economics knowledge (Prifti et al., 2017), and be able to extract business value from the use of social media (Erol, et al., 2016; Hoberg, 2015). They should have knowledge in service orientation and product service offerings and change management (Hoberg, 2015), business process (Erol, et al., 2016). Also, knowledge of digital security, including data and network (Grega & Kornecki, 2015, Hoberg, 2015) knowledge about mobile technologies (Hoberg, 2015) and embedded systems and sensors (Grega & Kornecki, 2015) are requested. Besides knowing network technology and M2M communication (Erol, et al., 2016) it is important to possess knowledge of robotics and artificial intelligence (Hartmann & Bovenschulte, 2013). For all employees, big data and data analysis and interpretation (Prifti et al., 2017; Hoberg, 2015)

modelling and programming knowledge (Erol et al., 2016), knowledge about cloud computing and cloud architectures (Hoberg, 2015) will be of big importance.

5. CONCLUSION AND DIRECTION FOR FUTURE RESEARCH

Industry 4.0 enables a faster response to customer needs than is possible today. It improves the flexibility, speed, productivity, and quality of the production process, and it lays the foundation for the adoption of new business models, production processes, and other innovations. This paper provides a strong evidence of the important role human capital plays in Industry 4.0 revolution. In the era of digitalization, the success or failures of most organizations largely depend on how their human capital is managed, which is the reason because Industry 4.0 revolution provides a space where employees to machines interactions are the order of the day. Thus, the interfaces created become the connecting points between employees and machines. However, Industry 4.0 revolution requires creative and inventive employees, which are knowledgeable how to work in such environments. Developing a workforce to meet present and future market needs proposes the identification of required competencies. Competencies such as skills, abilities, knowledge, attitudes and motivations an individual needs to cope with job-related tasks and contemporary challenges. In the first part of this contribution, a comprehensive list of essential competencies for the work in a digitized and interconnected world was compiled. Even though every job has different requirements, the identified competencies are becoming progressively important and need to be addressed by human resource development. However, our literature review showed that research on Industry 4.0 competencies is rather limited. Most of the defined competencies are not new, so we should identify a specific combination of competencies for Industry 4.0. Moreover, current review does not show in which way employees should use their skills and current knowledge. If we consider today's economy and disciplines, there is a clear separation between the competencies that employees from different disciplines should bring. For instance, if we mention IT, everyone recalls a certain job profile and competencies in their mind that is completely different from the profile that one would recall if we mentioned IS or Engineering. The contribution of this paper is based on the fact that in the future the competencies sets that different disciplines should bring will be very similar and will differentiate only in some aspects of domain knowledge. As a consequence this should be a further point where research could offer teaching methods for interdisciplinary teaching. With our work we make an initial contribution that could be further expanded for other professions that require higher education. Further research in the area of Industry 4.0 competencies is required to study further aspects of competencies as well as define how the presented models could be applied in practice. Especially a definition of a competency profile for a certain job description, e.g. which competencies of the model should a programmer bring, could be a further interesting point for research and practice. Further research should focus on the development of specific job profiles, as well as on the integration of different job profiles. So, this paper has practical implications as well. The presented competencies models could be used in practice by companies and universities. Companies could use the model to define job profiles for the implementation of Industry 4.0. It is uncertain that one employee will not bring all the competencies included in the model, but by combining some of them depending on the position, different profiles can be described. Combination of real and virtual environment will cause the changes in education system and its transformation named Education 4.0. Regarding the social dimension of Industry 4.0, several benefits for employees are identified, such as human learning through intelligent assistance systems and human machine interfaces that lead to increased employee satisfaction in industrial workplaces. Additionally, Industry 4.0 will cause an increase or decrease of employee numbers in industry. As a result of these challenges, organizational implementation of Industry 4.0 requires purposeful transformation processes, often referred to as "digital transformation".

Actually, it requires new mindsets for handling challenges of digital transformation, as well as a common strategy for addressing employee qualification and acceptance of individual qualification methods. This will enhance the speed and agility of closing competence gaps with the help of the model.

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FORMATION FEATURES OF THE MIDDLE CLASS: DEVELOPING COUNTRIES AND AZERBAIJAN

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ABSTRACT

In different countries the growth of the middle class is considered as the main force of political and economic changes in society. On the basis of world experience, we can say that in a democratic society the formation and development of the middle class is considered the basis of the state, but in the authoritarian regime its is considered the main source of threat to the state or government. Studies show that there are socio-economic and political changes in the formation of the middle class in developing countries. Representatives of this class also act as a driving force in addressing important issues, such as increasing employment, creating new business areas, improving infrastructure, creating an attractive environment for mobilizing new resources and ensuring sustainable and proportional economic development for the long term period. In the paper factors affecting the formation of the middle class in developing countries will be grouped and their impact levels will be determined. At the same time, comparative analysis of the current situation in this area will be carried out, the characteristic features of formation of this layer in developing countries will be summarized and appropriate proposals will be given.

Keywords: *middle class, employment, economic changes, developing countries, creating new business areas*

1. INTRODUCTION

The study extensively examines the boundaries and dynamics of the development of the middle class, its professional social composition, the structure of income and expenses.

2. CONCLUSION OF THE MEDIUM STABILIZATION

Despite the fact that the issue of the middle class is a subject of long-term academic research and approach from different perspectives, Aristotle, Marx and Weber's approach are accepted as theoretical basis of this field. The investigations show that Aristotle has a political attitude to the middle class. He noted that the middle class was selected from the rich and poorer

members of the political class as a more just and mighty ruling class.[1] While Karl Marks[2] designs production or capital owners as a middle class, Max Weber has approached mid-level representatives as a key marketer in the market. Veber referred to members of this class as "third-class" laborers, usually those who are away from the production process, as well as those engaged in individual entrepreneurship, professional professionals, civil servants and independent artisans. For Weber[3], the source of income between the classes was different. Considering the earnings of wages and the earnings of capitalists, Veber perceives middle-class wages and, therefore, perceives middle-class workers as keeping the spiritual distance between poor and wealthy holders.[4] Modern economics think that the choice of middle class owners is wider than both producers and consumers. Thus, in determining the middle class as the owners of this layer, it is more acceptable to consider objective (material-based approach and resource approach), subjective (based on people's involvement in the middle class) and a combination of these two approaches. The approach based on the level of material situation is characterized by a relatively high standard of living and consumption. The key criterion is the level of material situation and is formed on the basis of the following indicators:

- level of per capita income;
- availability of a certain set of expensive property (automobile, technically equipped housing);
- access to paid social services (education, health care);
- Ability to travel around the world (foreign trips for recreation).

The resource approach was put forward by modern English sociologist Anthony Giddens. In this approach, the "old middle class" and the "new middle class" distribution are given. Smaller entrepreneurs in the "old middle class", and the "new middle class" are usually hired workers with high salaries and average wages, engaged in intellectual work. The upper middle of the "new middle class" refers to the managers and highly qualified professionals. The lower part is for teachers, doctors, managers and so on. includes. The "old middle class" gradually decreases, the share of the "new middle class" increases. Thus, the size, type, and structure of the capital are based on the resource approach. This capital is the property of any person, household, class, etc. at his disposal. The subjective approach is based on personal-psychological characteristics of individuals. In this case, the middle class is determined by the people's own considerations. The combined approach is related to the complex application of the above two criteria for determining the middle class (self-determination, occupation, education, property and income characteristics). The investigations reveal that the problems of building a progressive social structure of the society in the recent years are in the focus of attention in the world. Economists still do not agree on a common middle class. Some refer to a class of about 50 percent of US median incomes. Note that there is no general definition of the middle class. One of the definitions given to the middle class is found in Heather Boushey's and American Progress Center's Adam Hersh's "Economic Growth" research case. Here is a summary of the "home-based family with a number of economic security", summarized as follows: "Occupational health insurance and high-paying job-holders, or having the ability to either study or send a child to a college or a new there must be a guarantee of starting work". In this regard, one of the main tasks of the states is to define the social structure and to increase the share of the middle class in society. Thus, according to the opinion of world economists, this special social group is an important social resource for the development of countries and regions.

[1] Glassman, Ronald M. The Middle Class and Democracy In a Socio-Historical Perspective New York: E.J. Brill, 1995
[2] https://www.marxists.org/archive/kun-bela/1918/05/04.htm;
[3] https://www.ssc.wisc.edu/~wright/Found-c2.PDF
[4] Luce, Edward, Vincent Boland, Jo Johnson, Simon Kuper, and Andrew Ward, “Stuck in the Middle,” Financial Times, 16 Dec. 200: 18

The British demographer and economist, Thomas Robert Malthus, also stressed the importance of forming and expanding the middle class to improve the country's socio-economic development and public welfare. In particular, he noted that "... the middle class in the society is favorable for the development of industry and all the abilities, but not all people can belong to the middle class. It should be noted that an appropriate methodology is used to define the social structure of the society (upper, middle, and lower) that there is a significant difference in the relative numbers obtained on the basis of these methodologies that it is possible to determine which social group the population belongs to, becomes. Based on this assessment, the causes of these problems, which prevent the development of problems in social groups and the development of a better level, can be explored and put forward in the view of removing them. Supporters of the widespread second approach note that the middle layer is indefinable. In the modern era, the middle class is referred to as the result of labor and professional skills, not as people in the past as in the past. In developed countries, the middle class fulfills the function of social stabilizers by organizing the basic social group of the population. Representatives of the middle class are more likely to support the existing state structure. In addition, the middle class plays an important role in other social processes. Thus, the middle class in the field of economic relations plays the role of an economic donor. They are also major producers, investors and large-scale taxpayers. In the field of culture, the middle class plays the role of a cultural integrator - this class protects and carries the wealth, norms, traditions and laws of society. The middle class is represented in the state apparatus or in the business sector as officers and managers. The self-regulation of civil society is based on the activity of middle-class representatives. Its function is called administrative-executive regulator.

3. APPLICATION METHODOLOGY OF MEDIUM STABILITY

The definition of the middle class and the division of the population into groups require further study of the cause of inequality. Finding the middle layer is divided into inequality components, individual groups of population and inter-group inequality. It is carried out in separate categories of the population in the region. Thus, if we are divided into different groups of m, Taylor's average logarithmic decomposition index can be illustrated as follows, if we express the specific weight of the j-group in the general population and its specific weight in consumption.

$$E(0) = \sum_{j=1}^{m} w_j E(0)_j + \sum_{j=1}^{m} w_j 1n\left(\frac{w_j}{v_j}\right),$$

Here is the average logarithmic displacement indicator for all individuals in the group E (0) j j. The first is the weighted average indicator for the subgroup collected. The first group characterizes the general inequality component of inner inequality. The second is the average logarithmic displacement indicator calculated on the average consumption of each group. Thus, the second group represents an inequality component of inequality. Distribution of income to identify inequality in individual groups, regions and income sources is divided into components. At the same time, distribution of revenue is divided into inter-group and intra-group components. The first component reflects inequality between people in different groups (education, specialty, gender, geographical characteristics), and the second is the interpersonal inequality in the same group. The general index of the division of inequality into components can be summarized as follows:

$$I = I_w + I_b = \sum_{j=1}^{k} v^{\alpha}{}_j * f_j^{1-\alpha} * GE(\alpha)_j + \frac{1}{\alpha^2 - \alpha}\left[\sum_{j=1}^{k} f_j * \left(\frac{y_n}{y}\right)^{\alpha} - 1\right]$$

Where fi is the specific weight of the j group in the total population (j = 1,2, ..., k);
vj - part of the group income;
yj - average income of j group.
Due to revenue source, the components are usually distributed on the basis of income.

This process is based on income rather than consumption. Each component of revenue is derived from the revenue source's concentration ratio in the total revenue at the same source. If there is a concentration coefficient for component k, then Gk * is found by the following formula.

$$G_k^* = \frac{2}{\mu n^2} \sum_{i=1}^{n} \left(r_i - \frac{n+1}{2} \right) y_{k,i},$$

where the number of i-i components of an individual income, μ- average aggregate income, is the number of i households in the range of rigid income. Cini coefficient is the sum of the concentration coefficient with the following formula

$$P_k = S_k \frac{G_k^*}{G} x100\,\%$$

The above mentioned inequality factors show the total weight of source income. However, it is necessary to determine the limits of each source of income. In other words, how many percent of inequality varies if x revenue increases on income source. As can be seen from the above, the number of middle-aggregates is a difficult measure. Multiple statistical analysis should be used to identify the middle class as poverty. According to the sociological surveys conducted by the Pew Research Center, the distribution of population by layers has been grouped as follows.[5]

Distribution of revenue by revenue, US dollars	
Poor	<$2
Lower-Middle	$2 – $10
Middle	$10 – $20
Upper-Middle	$20 – $50
High	>$50

Table 1: Distribution of revenue by revenue, US dollars

4. MIDDLE CLASS IN DEVELOPED COUNTRIES

Recently, the factors of the middle class are differentiated depending on the level of development of countries. In developed countries, the level of the middle class, along with representatives of higher elite high-paying jobs, such as managers, lawyers, accountants and

[5] Pew Research Center. 2016. "America's Shrinking Middle Class: A Close Look at Changes Within Metropolitan Areas." Washington, D.C. http://www.pewsocialtrends.org/2016/05/11/americasshrinking-middle-class-a-close-look-at-changes-within-metropolitan-areas/

scientists, includes many other social workers, sales agents, school and university teachers, doctors and government officials.

The classification of social groups in the UK, created more than 50 years ago in the course of the National Study of readership, became very widespread in the 20th century and is now widely used in national statistics and government reports. In 2001, this classification was slightly modified by the National Statistical Service of the United Kingdom. Both classifications are presented in Table 2. In general, all previous attempts to describe the middle class in both domestic and Western studies, as a rule, boiled down to identifying the middle class levels depending on income and status positions and in essence repeat the three-level model L. Warner[6]: upper middle class, middle middle class and lower middle class. Today, such a division is generally accepted in the world practice of middle class research.

Levels	Professions	
	Classification of the National Study Readership	Classification of the National Statistical Service of the United Kingdom
Upper middle class	Top managers, executives and professionals	Top professionals and top managers
Middle class	Middle managers, executives and professionals	Lower level managers and professionals
Lower middle class	Managers, Clerks, Lower Level Managers, Administrative Officers, and Professionals Skilled workers	Mid-Level Employees Small Business Owners and Self-Employed Lower Level Managers and Engineering Representatives
Skilled working class	Semi-skilled or unskilled workers	«Routine" profession
Working class	Working without a permanent job, low-level employees, retirees and other groups living on state social transfers	Unemployed for a long period of time
Poor	Working without a permanent job, low-level employees, retirees and other groups living on state social transfers	Unemployed for a long period of time

Table 2: The classification of social groups

Scientists have disagreements about confirming the criteria of the middle class. Some approaches include education levels and incomes, consumer standards, the presence of material or intellectual property and highly skilled work skills. Other approaches consider two options that characterize the structure of the middle class. Some sciences view the middle class as a fairly homogeneous type of education. At the same time, compared with the lower strata of society, the representative of the middle class has a higher income and favorable working conditions; but it has less favorable positions in these parameters, relative to the upper class. The second approach is widespread, emphasizing the heterogeneity of the middle class. For example, according to the modern British sociologist Anthony Giddens, there are two main

[6] Warner L. What is Social Class in America. New York, NY: Irvington Publishers, 1949. Л. Warner identified only two levels of the middle class: upper and lower. Over time, his model was supplemented by another level - the middle.

categories in it. The first is the “old” middle class - small entrepreneurs. This category is characterized by the majority of the population.
The second category, the “new middle class”, consists of highly paid workers who usually participate in intellectual work. The top layer of the "new medium" includes managers and specialists from big business. As a rule, these people have higher education and are highly qualified specialists. Also includes teachers, doctors and artists. There is no clear boundary between these categories. In addition, there is a strong diffusion between them. Thus, the number of "old middle" classes (class of owners) is constantly decreasing, and the number of "new middle" layers, on the contrary, is increasing. At present, the majority of the middle class are not made up of those whose source of income is their own work and profession, as in the past, but people capable of owning personal property.

5. MIDDLE CLASS IN DEVELOPED COUNTRIES

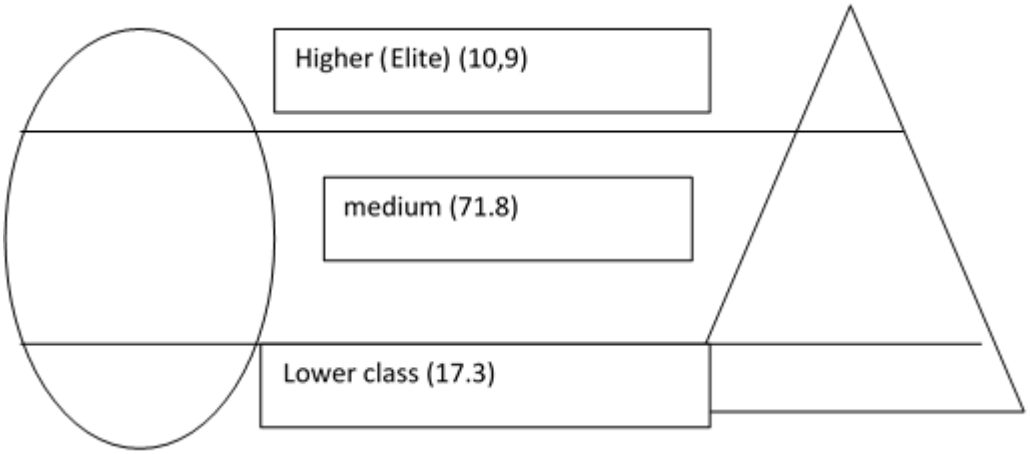


Figure 1: The structure of social development and development of society

The social structure of developed countries schematically looks like an oval, resembling the shape of an egg (Fig. 1). In particular, compared with the low-income (poor) and high-income (rich), the proportion of the middle class is higher. Thus, currently about 65-75% of the population in developed countries belongs to the middle class. In developed countries, the middle class, as the main social group, performs a number of important social functions. This is clearly seen from the indicator of the distribution of the population into different strata based on per capita income. For comparison, the proportion of people with a daily value above $ 50 was 46.9 percent in developed countries, while this figure was 8.9 percent in the world and 0.5 percent in Azerbaijan. While the average daily cost of less than $ 2 is comparable to the situation in Azerbaijan with developed countries, the situation as a whole differs from $ 2-10. From this it follows that in Azerbaijan the population is more numerous and prone to poverty, and belonging to the middle class. Thus, the current political system in developed countries allows the social structure of society to support the middle class and determine its position, unlike in the post-Soviet countries, including Azerbaijan, where this idea cannot yet be voiced.

Figure following on the next page

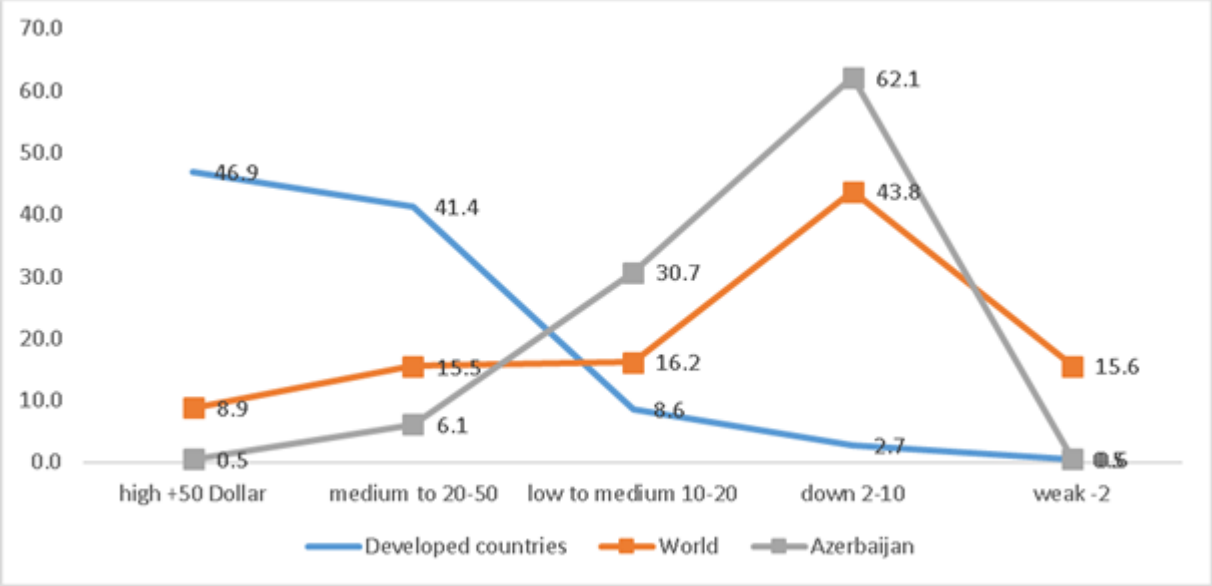


Figure 2: Population distribution in developed countries

The existing political system in developed countries protects and allows the middle class to determine its position in the social structure of society. It should be noted that the middle class plays a leading role in the process of social mobility, which, in turn, creates many real opportunities for improving the social status of the lower class and strengthens the existing social structure for protection against social disasters. The World Bank defines $ 1.90 per day as the global poverty line. The Pew Research Center pushed this figure up to $ 2 with information from Povcal Net and income surveys in Luxembourg and created a statistical basis for determining the level of stratification among the world's population by including three additional income levels. In this article, we use the same base to determine differences between levels of countries and conduct related research. Based on the above statistical base, the distribution of the population among developed countries can be clearly seen from the following table.

Table following on the next page

Table 3: Expenditures of the population of developed countries, in percent[7]

	high +50 dollars	medium to 20-50	low to medium 10-20	down 2-10	weak 2
Norway	77,2	20,2	1,5	0,6	0,6
Luxembourg	74	24,7	1,2	0,1	0
Switzerland	57,96	39,25	2,5	0,19	0,06
USA	55,7	31,9	7,4	3,4	1,6
Netherlands	68	29,4	2,3	0,3	0
Swedish	40,52	52,76	5,02	1,09	0,61
Germany	59,5	35,4	4,6	0,4	0,1
Danish	72,8	25,1	1,4	0,4	0,3
Ireland	36,2	49,5	11,5	2,4	0,6
Austria	44,88	47,8	5,39	1,31	0,62
Australia	50,1	42,5	5,9	1,1	0,5
Canada	56,4	36	6,2	1	0,3
Belgium	36,97	55,02	6,94	0,83	0,24
Finland	56,5	40,1	3,1	0,3	0,1
France	38,87	53,11	7,13	0,8	0,09
Big britain	42	42,3	12	2,6	1,1
Japan	22,67	60,32	12,98	3,68	0,35
Iceland	60,3	36,2	2,8	0,6	0,2
Italy	23,88	55,31	14,57	4,72	1,52
Spain	27,3	49,5	16,3	5,5	1,4
Israel	21,5	41	22,1	15	0,4
Portugal	8,07	42,5	36,12	12,57	0,74
The developed countries	46,9	41,4	8,6	2,7	0,5
World	8,9	15,5	16,2	43,8	15,6
Azerbaijan	0,5	6,1	30,7	62,1	0,6

As can be seen from the table, Norway is among the highest levels of development. In this case, 97.4 percent of the population exceeds the average-highest and highest share. In the next stage, Luxembourg, Switzerland, USA, Germany, Sweden and others. In addition to the stabilizing function, the middle class plays an important role in other social processes. In the field of economic relations, middle-class entities assume the role of economic donors and act as consumers, investors and taxpayers, as well as those who produce a significant part of the income of society. In the field of culture, the middle class is an integrator of culture. So the middle class is of exceptional importance for the preservation and dissemination of moral values, norms, traditions and laws. Also, the middle class provides human resources for government officials, as well as officials and managers of various levels in business. Self-regulation of civil society is also based on the activities of the middle class. In the third world countries, the figure that adequately reflects the social structure of society is the "pyramid" (Fig. 1): a group of high-class people, a group above the middle class, a large subclass. The relative minority of the middle class leads to the inability to perform the same functions as in developed countries. This can be considered as one of the causes of the socio-economic recession in developing countries. In each country there are similar and easily comparable criteria (education and lifestyle), as well as the individual characteristics of the middle class. For example, savings or the propensity to save in Western Europe and America, the widespread use

[7] https://chinapower.csis.org/china-middle-class/

of credit, etc., belongs to the middle class. In developed countries, the middle class mainly consists of business people, intellectuals, civil servants, artists and skilled workers.
Skilled workers work in the "lower middle" class, the "middle" class includes small entrepreneurs, civil servants and other officials, and the "upper middle" includes managers, officials, top managers, and people with hereditary wealth. The middle class also contributes to the scientific and technological development and affects among those who are involved in the fields of application of high technology. Thus, although "yesterday" the middle class was formed among the creators of new technologies, "today", in the "post-industrial" period, has a high proportion among non-industrial workers. The middle position of this group leads to some contradictions. Thus, according to some left-wing sociologists, the middle class acts simultaneously as exploited and as exploiter: on the one hand, it is exploited by representatives of big business, on the other hand, joins the exploitation of labor rights.

6. MIDDLE CLASS IN AZERBAIJAN

The formation of the middle class in Azerbaijan in the past had a peculiar feature. The bulk of this class were not private owners, but numerous and heterogeneous groups of people — officials, workers, and students. Along with other countries that are part of the former Soviet Union, after World War II, Azerbaijan began the process of building industrialization. Since the 1960s, this has begun to manifest itself in an increase in the standard of living of the population. Thus, a significant part of the technical staff of the middle class and the creative intelligentsia, as well as a significant increase in the purchasing power of highly skilled workers led to the formation of middle-class populations. This class can be compared with the Western middle class in many characteristics (mainly in terms of education). An important characteristic is that these people have no meaningful property (not counting the house and the car). Unlike the Western middle class, the Soviet middle class was very sensitive. In the former Soviet republics, including Azerbaijan, the only form of awareness of this middle class is their sense of belonging to intellectuals. Here, with the beginning of market reforms, a group of people began to resemble the Western middle class.

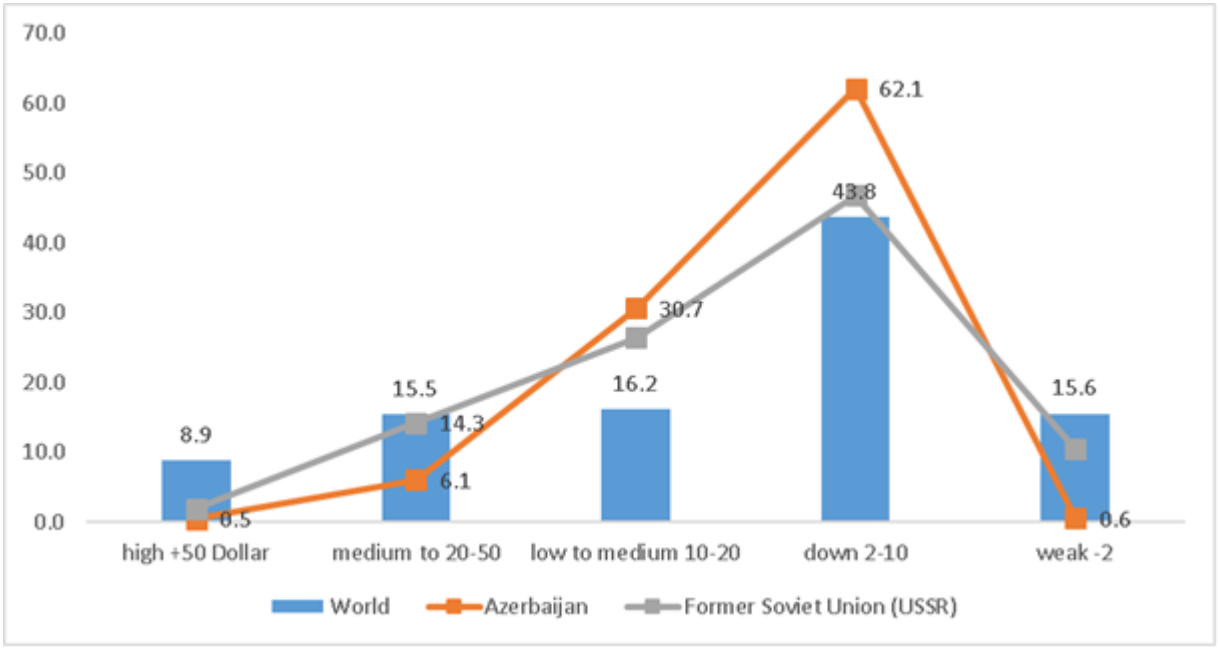


Figure 3: Layer distribution by population expenditure in 2017

As can be seen from the figure, as in other countries, in Azerbaijan the number of people with an income of less than $ 2 is relatively small. At the same time, comparing both the global

average and the indicators of the post-Soviet countries, a relatively small number of this group shows that the level of poverty in our country is not high.

However, the high proportion of those who have an income of 2-10 US dollars indicates that the population, on the one hand, is inclined towards the middle class, and on the other hand, it also has a large proportion of the population suffering from poverty. One of the main attacks on the formation and development of the middle class in Azerbaijan was the exposure to military aggression by Armenia from the first years of independence. Thus, as a result of the Armenian military invasions, some Azerbaijani lands were under occupation, and 15 percent of the country's population became refugees and internally displaced persons. In this situation, most of the population is faced with poverty. It should be noted that the level of poverty in Azerbaijan in Soviet times was quite high.[8] Thus, in 1989, 33.6% of the population of Azerbaijan was considered poor, and this is 3 times higher than the average level of poverty in the Soviet Union[9]. In 1995, 68.1% of the population lived below the absolute poverty level. Since the beginning of the 2000s, Azerbaijan has achieved significant success in the fight against poverty.[10] According to the World Bank, poverty reduction was made possible thanks to strong economic growth, wage increases and successful social protection measures. The resulting situation has led the mass of the Azerbaijani intelligentsia to the position of the lower class ("new poor") and divided the society. Subsequently, the economic recovery further strengthened the unification of the middle class. However, although this process is completely based on the concept of "middle class", the views of local scientists are rather contradictory regarding the existence of this class in Azerbaijan. A number of scientists deny the existence of a middle class not only in Azerbaijan, but even in the post-Soviet countries. But some speak of the peculiarity of the notion “middle class”, which unites numerous groups of people, which differ little from each other. However, in the post-Soviet space there is still a belief that there is still a middle class. Some say that the middle class is in its early stages of formation and will soon exist in all post-Soviet countries. Scientists who know the existence of a middle class in Azerbaijan are distinguished by the following main features. Representatives of the middle class in Azerbaijan, as well as abroad, as a rule, are people with a high level of professional education. For most other criteria (income level, consumption patterns and lifestyle), this class of Azerbaijani society differs little from the lower class. A significant part of the middle class in Azerbaijan (about 40%) is the “old middle class”, i.e. people engaged in entrepreneurship. As for the intelligentsia, they are mostly at a low level. Thus, the mentioned “new middle” class in the post-Soviet space is smaller than in developed countries. The middle class of Azerbaijan is characterized by high heterogeneity and even uncertainty according to very objective and subjective criteria. He knows the general interests of the middle class. Instead of serving as a stabilizer of society, the middle class is cautious against the official authorities and at the same time does not support the opposition. There are very few elite strata in the country, and the number of low-income or inclined to poverty citizens is very large. The division by income in developed countries resembles the “Egg” and “Pyramid” forms, but in developing countries, including Azerbaijan, it is different and resembles a “straw hat” (Fig. 2). At the same time, only a small part of the poor population belongs to the middle class. According to the results of a sociological survey of the Center for Strategic Studies (SRC) under the President of Azerbaijan, based on a certain methodology (availability: average monthly expenses of one person in the range of 94-470 manat; at least one of household assets, such as a country house or a car) 43.9% of the population can be considered the middle class. Analyzing representatives of the middle class in Azerbaijan, we observe the differential distribution of the indicator of education, which

[8] http://www.refugees-idps-committee.gov.az/az/pages/2.html

[9] D.J. Bezemer. 2006. Keçid Zamanı Yuxsulluq. İqtisadiyyat və Biznes jurnali. 9 (1). pp. 11-35; Avropa Komitəsi. 2011. Sintez hesabatı: Azərbaycan, Ermənistan və Gürcüstanda sosial müdafiə və sosial əhatəlilik. 2011"

[10] Dünya Bankının məlumatları (Azərbaycan üzrə Memorandum, Yeni İpək yolu, İxrac yönümlü diversifikasiya, 2009, https://www.adb.org/sites/default/files/linked-documents/cps-aze-2014-2018-pa-az.pdf

is considered the most important criterion. Thus, only 30% of people considered to be middle class have a higher education.

If we evaluate according to predetermined criteria, then the middle class can be divided into two categories: upper middle class, lower middle class. The education indicator determines the volume of the upper middle class. This class covers 33 percent of the middle class in Azerbaijan. Another interesting point is that 66.9% of the average population in Azerbaijan has a secondary and specialized secondary education. Based on the criteria of education, 35% of the highly educated population cannot be classified as the middle class due to three reasons: 1) the principles of social justice in society or a low level of education are violated; 2) 35% of people do not have sufficient financial resources, even if they have a diploma. However, it should be borne in mind that the number of refugees and internally displaced persons in a country may exaggerate these figures. 3) According to the criterion of ownership, the middle class is 66.9 percent of the population, but they should be considered as a lower middle class. Since the probability of the activity of this group in the public life of society, the announcement of social challenges, the decisive role in general and national problems is estimated very low. In determining the classes of the middle class, it has been established that more and more people are qualified specialists (engineers, educators, doctors, scientists or programmers). Meanwhile, it draws to the attention that 20.5% of the middle class is in retirement age. This group of people is not dynamic, although it has certain property capabilities. This does not compromise social demands. One of the key points is that 9.7% of the population in the middle class identify themselves as unemployed. This group considers itself unemployed, although it has certain property. 13.7% of the incoming population who are in the middle class are between the ages of 16-29 years old, 16.9% - 30-40 years old, 29.6% - 41-50 years old, 24.9% - 51-60 years old , 11.1% - 61-70 years old and 3.7% - above 70 years. Based on the results of sociological polls of the SRC, it should be noted that the subjective opinion of the respondents that they belong to the middle class is consistent with our results. Since, 44.2% of the population includes itself in the average status by financial position, 45.8% by level of education and 33.3% by reputation of the profession. Apparently, the percentage of the population (43.9%) that the research group includes in the middle class corresponds to the share of respondents who consider themselves to be a class at the average level by financial status, by level of education and by reputation of their profession. This property sharply distinguishes the inner middle class from the West. In the West, social status criteria are very well coordinated: for example, income at the highest level, as a rule, is associated with the highest qualification. In contrast to the Soviet era, in modern conditions the middle class is distinguished by a certain heterogeneity in its composition. Often, scientists in post-Soviet countries distinguish two levels (even two subclasses) in the middle class — the “old middle” class (the Soviet middle class) and the “young middle class” (the middle class close to Western models). In contrast to the Soviet era, in modern conditions the middle class is distinguished by a certain heterogeneity in its composition. Often, scientists in post-Soviet countries distinguish two levels (even two subclasses) in the middle class — the “old middle” class (the Soviet middle class) and the “young middle class” (the middle class close to Western models). Individual subclasses have not only different external features, but also opposing ideas and values. Signal polarization is observed not only in the internal structure of the middle class, but also in its social geography. The middle class of capital cities has nothing to do with the surrounding class. Thus, the share of highly paid employees of medium and fixed capital is higher among entrepreneurs in the environment. Consumer standards are also very different: if in the capital more attention is paid to entertainment and comfortable living conditions, in the regions there is an indicator of the state of society, there is an expense for food and clothing.

Figure following on the next page

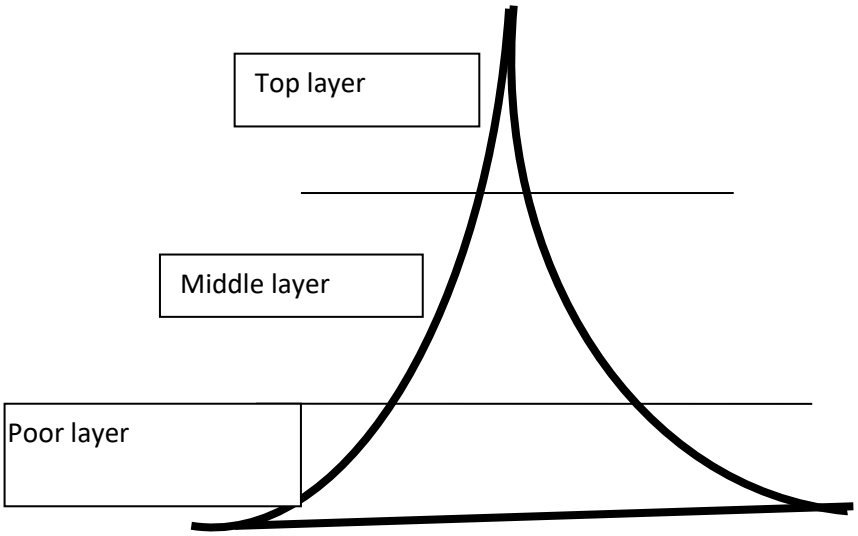


Figure 4: Population distribution by strata in Azerbaijan

The discrepancy between the living conditions and views of different groups of the Azerbaijani middle class leads to their mutual negation: intellectuals criticize businessmen, are "attacked" by metropolitan regions, and the "new weak" respect the "new rich". With regard to the political views of representatives of the middle class of Azerbaijan, scientists note the absence of any stable and clear political problems. None of the political doctrines attract many of the middle class. Representatives of such a middle class associate their well-being not in any political regimes, but with their personal qualities and their activities. In many cases, the lack of desire for active participation in public life does not undermine the function of stabilizing this class.

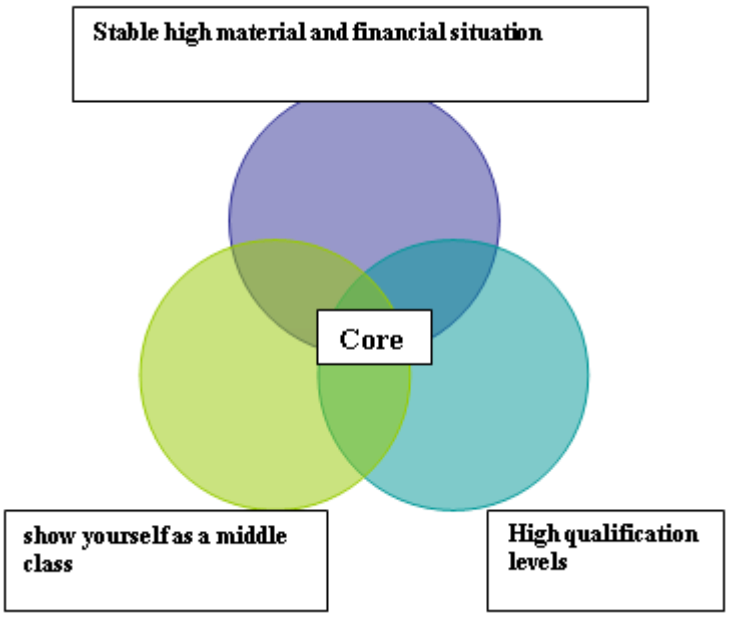


Figure 5: Identification of the middle class in view of income, professionalism and other characteristics

Thus, a relatively small "real" middle class (about 30% of the total population) and a large number of the average population (approximately 60%) in modern Azerbaijan have only a small part of the characteristics of the middle class. This situation can be described as a median indicator, reflecting at least one of the three functions of the average level.

7. CONCLUSION

In the future, apparently, there will be a combination of Western analogues in the post-Soviet space due to the spread of the proto-middle layers of the middle class to the "core". At the beginning of the 21st century, there is a need for targeted state policy with the goal of "ripening" the middle class in the post-Soviet space, including in Azerbaijan.

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GROWTH AND INNOVATION ACTIVITY OF AGRICULTURAL AND FOOD PROCESSING FIRMS IN BULGARIA

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ABSTRACT

This paper explores and analyzes the dynamics of firm growth and productivity, on the one hand, and the investments in innovation activity, on the other, as we distinguish between firms from Agricultural sector and Food processing sector. An attempt has been made to examine the relationship between the firms' growth and performance and the innovation activity of firms of different size and age. For this purpose we analyze 1) the change in the sales revenue and value added from firms' operations; 2) the significance of investments in innovation activities and real assets, the size and age of the firms as factors for higher growth and productivity. Our findings show that regardless the firm size there is a positive link between firms' growth, productivity and age and the amount of innovation investments for the food processing firms, and not for the firms in Agricultural sector. Innovation active firms in both sectors indicate better economic performance and create more value added. Considering firm size, we found that the investments in innovation activities and firms' age are significantly related for the small and large firms in the Agricultural sector and the small and medium firms in the Food processing sector. Large innovation active firms from the Food processing sector invest more in real assets, however in the Agricultural sector the small and medium-size innovative firms outstrip investments of the large firms. Food processing firms show higher ability to generate revenues, create more value added and perform larger investments. Investments in real assets are significantly linked with firms' innovation investments in both sectors.

Keywords: *financial performance, firms' growth, innovation activity, investments, productivity*

1. INTRODUCTION

Agricultural sector is a key sector in the Bulgarian economy. It is involved in rural development and employment, thus indirectly creating around 12-15% of the country's GDP, which is significant and important enough, and shows the potential to improve its performance in the future. In 2017 it accounted for 4.69% of the country's GDP at current prices.[1] Food processing industry is one of the manufacturing industries in Bulgaria, which in the year 2017 accounted for 24.33% of country's GDP. Both sectors have been the subject of discussions by many authors over the years, as they are a major driving force in a country's economy. Various relationships between them have been addressed in literature, including: age, growth and innovation; size and innovation; productivity and innovation; size and productivity; innovation, productivity and export by firms, and others. Studying the connection between innovation and growth of firms for the various age groups, Alexander Coad et al. (Coad, Al., Segarra, A. and Teruel, M., 2016, p. 387–400), found that investment in research and development (R&D) of young firms proved to be significantly riskier than R&D investments of older firms. The findings of Orkun Yildiz et al. (Yildiz Or., Bozkurt Ç., Kalkan Ad. and Ayci, Al., 2013, p. 590-599) also confirm that older age together with firm growth plays an important role in the

[1] http://www.nsi.bg

innovative performance of the firms. Czarnitzki and Delanote (Czarnitzki, D., Delanote, J., 2013, p. 1315–1340) believe that young innovative firms are developing faster and are therefore more effective, but García-Quevedo, J. et al. (García-Quevedo, J. et al., 2014, p. 1544-1556) claims that previous innovation experience is a major development factor, so young firms are more unstable and have to be more stubborn. Segarra, A. and Mercedes Teruel (Segarra, A. and Mercedes Teruel., 2014, p. 805–821) analyze the effect of investment in innovation on business growth. As an indicator of growth, they use two alternatives, according to the number of employees and sales volume. The authors conclude that a small number of firms in the survey have a rapid growth rate. The results reveal that investment in innovation has a positive impact on the likelihood that firms will become HGF (high-growth firms). Zoltan and Audretsch (Zoltan J. Acs and David B. Audretsch., 1987, pp. 567-574) believe that large firms tend to have a relative innovative advantage in sectors that are capital-intensive, highly skilled and produce differentiated goods. Gardiner, R. and Petr Hajek (Richard Gardiner, R., Hajek, P., 2016, p. 630-637) support the thesis that human capital is an important prerequisite for the investment activity of SMEs. Bianchini, St. et al. (Bianchini, St. et al., 2014) as well as Cainelli, G. et al. (Cainelli, G., Evangelista, R., Savona, M., 2006, p. 435–458) explore the connection between business growth and investment in innovation. Authors find that there is a dependency that has a positive impact on firms' economic performance. While Coad, Al. & Rekha Rao (Coad, Al., Rao, R., 2010, p. 127-145) found a different result - sales pace is poorly influenced by the investments made in innovation. Another important dependence that is widely studied in literature is productivity. Chronologically, productivity in industry is gradually overtaking that in the Agricultural sector. Early studies (Smith, A., 1937) show that productivity in Agriculture is growing faster than in the manufacturing sector. Over the years, the theory has been confirmed by the works of other authors (Jorgenson, D. W., Gollop, F. and Fraumeni, B., 1987; Lewis, P., Martin, W. and Savage, C., 1988, p. 48-53; Bernard, A. and Jones, Charles I., 1996a, p. 135-146). Over the last decades, however, industry has been found to have better growth rates than the agricultural sector. The foundations for this have been laid by Karl Marx and David Ricardo, followed by other authors (Hayami, Yujiro and Ruttan, Vernon W., 1985; Schultz, T. W., 1964). According to Will and Devashish (Martin, W., Devashish, M., 1999) the comparison of productivity growth between Agriculture and Industry is also important for research resource allocation policy. Halkos, G. Em. and Nickolaos G. Tzeremes (Halkos, G. Em., Tzeremes, N. G., 2007, p. 713-731) analyze the relationship between company size and productivity. They found that the size of firms has an indirect impact on their productivity. Acemoglu. D. et al. (Acemoglu. D. et al., 2017) has built a model to explore the relationship between innovation costs and productivity growth. The model is suitable for analyzing the dynamics of company entry into and exit from the market, production and R&D. Plane, P. and Marie-Ange Veganzones-Varoudakis (Plane, P., Veganzones-Varoudakis, M., 2018, p. 125-139) explore the relationships between innovation, productivity and export of firms. In their research, they conclude that R&D training is mutually supportive in the innovation process - R&D stimulates companies to train their staff, and in return training stimulates R&D. Huergo and Jaumandreu (Huergo, El., Jaumandreu, J., 2004, p. 541-559) find that innovation at some point leads to further productivity gain.

2. DATA AND METHODOLOGY OF THE RESEARCH

Firm productivity and growth is seen as an expression of net sales, value added and employment in the current period. For analysis purposes, we define productivity as net sales per 1 employee. The value added per employee is obtained by deducting the cost of raw materials, external service's costs and depreciation costs from net cash income. We measure firm growth as a change in net sales and the ability of firms to create value added. We determine the productivity and growth of firms as a function of their innovation activity, investment in real assets, size and

age (years of business activity of the firms). We investigate innovation activity by firms' investing in intangible assets.[2] In particular, we use the available data on intangible assets costs reflected in the firms` balance sheet. Accordingly, the firms that invest in intangible assets expenses we define as innovation active, and those who do not invest in innovation activities, as innovation inactive firms. In the analysis of the investment activity of the firms in real assets, we use the acquisition cost of tangible fixed assets as an indicator. In order to deepen our analysis, we track the investment activity of the innovation active and inactive firms. To that end, we distinguish two groups of firms on whether they are investing in the intangible assets. We determine the size of firms by the number of their employees, as defined in the Small and Medium-sized Enterprises Act (SME)[3]- small with 10-49 employees, medium with 50-249 employees and large firms with over 250 employees.[4] Regarding the age of firms, we define four categories as follows: 0-5 years, 6-10 years, 11-15 years and over 16 years. The database we are working with has 14193 firms, 7409 of which are from the Agricultural sector[5] and 6784 from the Food Processing Sector[6]. This survey employs empirical data over the nine-year period 2007-2015. For the year 2015 the firms are 1401, 752 of which are from the Agricultural sector and 768 from the Food processing industries and for 2007 there are 1699 firms, 912 of which are from the Agricultural sector and 787 from the Food industries. Further in this article the presence of statistical dependence of the differences in the economic performance and the investment activity of the firms on their innovation activity is searched through variance analysis.

3. RESULTS

3.1. Innovation and investment activity

The number of firms that do not spend on investment in innovation activities exceeds the number of innovation active firms in both sectors (Figure 1). Innovation active firms account for only 35% for the entire sample. An exception is observed in medium and large firms from the Food processing industries, where the innovation active firms are 55% and 90%, respectively. Small firms are predominant in both sectors. Medium agricultural firms are six times less than medium size firms, while in the Food processing sector the difference is less than twofold. In the Agricultural sector the large firms are only 3, and they account for 0.4% of the total. While we have 33 processing firms in the sample and they account for 4.30%.

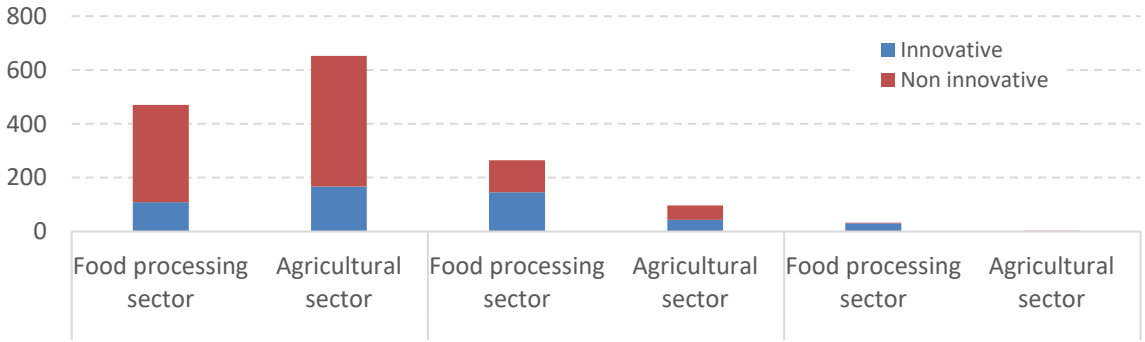


Figure 1: Distribution of firms according to their investments in intangible assets and size, 2015 (Source: created by the author)

[2] The data are collected from the firms' balance sheets and present information for both R&D and non-R&D investments, including investments in knowledge-based capital, such as software and databases, innovative property in terms of patents, designs, trademarks, etc.
[3] The distribution of enterprises in this study is in accordance with the Law on Small and Medium-Sized Enterprises, Art. 3, para. 1-3 (promulgated SG No. 82/16 October 2009, as amended and supplemented)
[4] In this study data from small, medium and large firms were used.
[5] According to Nace Rev. 2 2008, Section A
[6] According to Nace Rev. 2 2008, Section C, Divisions 10, 11 and 12

The costs of intangible assets incurred by the firms during the survey period show that small firms maintain a low level of innovation costs (Figures 2 and 3[7]). Steady growth is observed in the cost of small firms from the Food processing sector, while the cost of agricultural firms has shown a sharp but unsustainable rise (2011-2013).

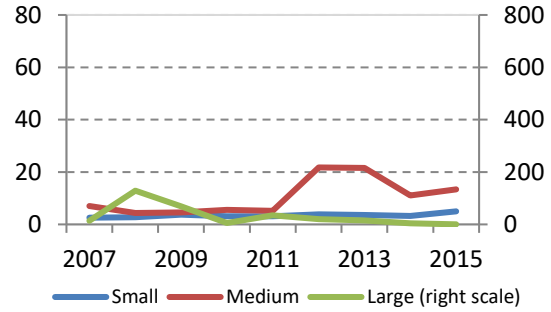


Figure 2: Intangible assets cost in the Agricultural sector, 2007-2015 (Source: created by the author)

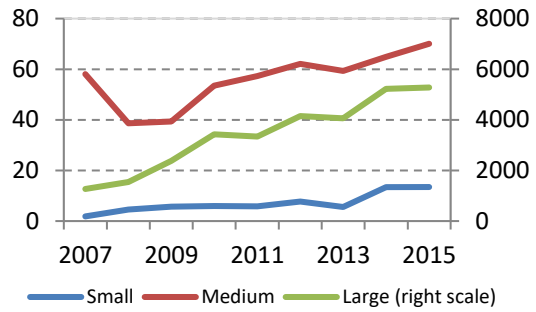


Figure 3: Intangible assets cost in the Food processing sector, 2007-2015 (Source: created by the author)

Strong impression is made by the significantly higher investment cost in innovation activities in the Food processing sector. In the Agricultural sector, from 2011 until the end of the survey period investments in innovation activity follow a decrease, while in the Food processing sector gradual increase was seen. Largest expenses for intangible assets were made by the firms in 2008 (BGN 128,80 thousand in the Agricultural sector) and 2015 (BGN 5277,27 thousand in the Food processing sector, more than 40 times over the ones in the Agricultural sector). In the analysis of the investment activity, there is a higher tendency of the large and the innovation active firms to invest in real assets. Of these, with the largest investment cost stand out the large firms from the Food processing sector. They invest 2.54 times more money in real assets, amounting to BGN 30 888.87 thousand, compared to the innovation inactive firms whose investment costs amount to BGN 12 143.67 thousand. At the end of the period, 2015, increased investment activity of the innovation active firms can be observed (Figures 4 and 5). Investments in real assets of the innovation active small and medium firms in the Food processing sector exceeded more than twice the investments made by innovation inactive firms.

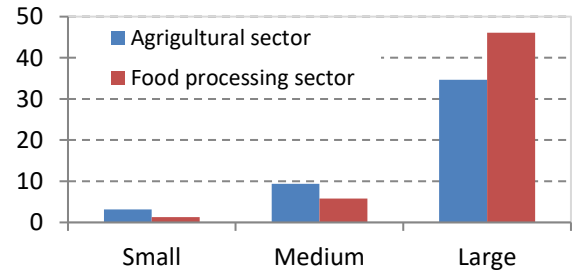


Figure 4: Investments of innovation active firms in real assets, 2015 (Source: created by the author)

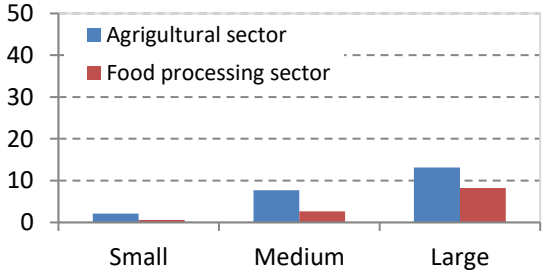


Figure 5: Investments of innovation inactive firms in real assets, 2015 (Source: created by the author)

An exception is made by large innovation active firms. In 2007, all large firms in the Agricultural sector were innovation active, while in 2015 their number decreased. However the size of the investment exceeded that of innovation inactive firms more than twice in 2015. The biggest difference in investment size is observed between the large food processing firms.

[7] Values on the vertical axis in all Figures are displayed in BGN thousands (where applicable).

3.2. Productivity

In the firms' productivity analysis, we again see that innovation active firms have higher revenues and value added per employee compared to innovation inactive firms. Firms in Food processing sector are more productive than agricultural firms.
The firms` net sales dynamics is positive and shows a growth trend in both sectors (Figure 6).

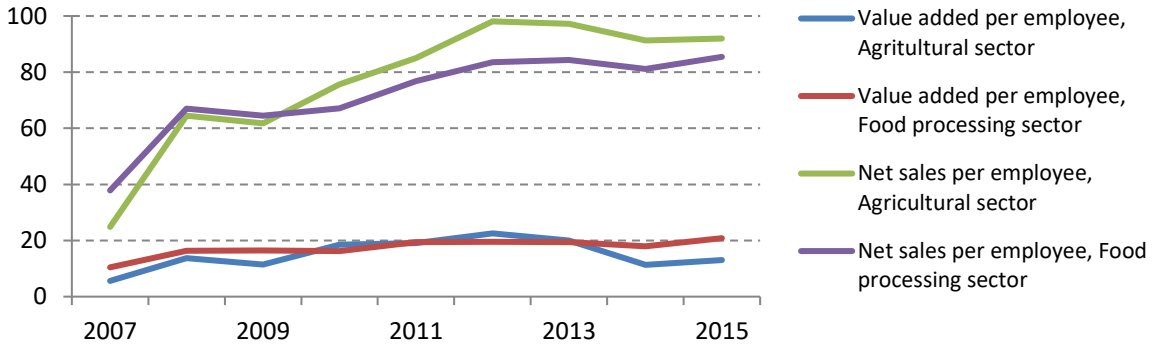


Figure 6: Net sales per employee and value added per employee, 2007-2015 (Source: created by the author)

Until 2009, food processing firms showed higher revenues, but after 2010, agricultural firms increased their ability to earn revenue and steadily outpaced the productivity per employee of the Food processing sector firms. The value added dynamics of the firms in both sectors shows a similar upward trend until 2013, and then the value added volume realized by the agricultural firms decreased. For the 2007-2015 period, the value created by the food processing firms exceeds the value added produced by the firms in the Agricultural sector (excluding the period 2010 to 2012). We see that the evolution of value added by agricultural firms is characterized by greater dynamics. Differences in comparative productivity are observed in innovation inactive small firms in the Agricultural sector and the Food processing sector. The results show that the productivity of agricultural firms without innovation investments exceeds that of firms in the Food processing sector. There is a significant difference in the amount of investment in innovation activities by large firms in both sectors. The volume of investments made by food processing innovation active firms exceeds 4 times those made by agricultural firms on average.

3.3. Age

The analysis of the age structure of firms shows that firms operating over 16 years are prevailing (Figures 7 and 8). Such age is found for more than half of the firms in both sectors, with firms operating 16 years or more in the Agricultural sector, occupying a significantly higher share of 70%. The relative share of the same age-based firms in the Food processing sector is 58%.

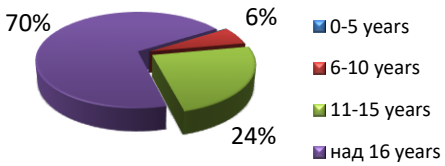


Figure 7: Distribution of firms by age, Agricultural sector, 2015 г. (Source: created by the author)

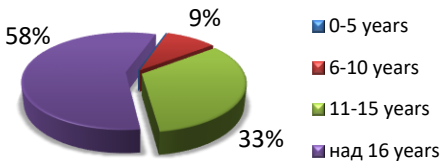


Figure 8: Distribution of firms by age, Food processing sector, 2015 г. (Source: created by the author)

3.4. Comparative analysis of economic performance

The differences in the economic performance of the innovation active and inactive firms are studied with respect to the following variables:

- Net sales per 1 employee;
- Value added per 1 employee;
- Investments in real assets per 1 employee;
- Age of the firms;
- Average number of employees.

The descriptive statistics of the average values of the above-mentioned variables shows that innovation active firms generate higher net sales per employee and invest more funds in real assets per employee (Table 1).

Table 1: Descriptive statistics of productivity, investment activity and age of firms, depending on the availability of investments in intangible assets, 2015 (Source: created by the author)

2015 year	Agricultural sector		Food processing sector	
	Non innovative[8]	Innovative[9]	Non innovative	Innovative
Net sales per employee, BGN thousand**	177,76	201,62	306,96	416,76
Value added per employee, BGN thousand**	30,11	31,04	56,50	118,17
Investments in real assets per 1 employee, BGN thousand*	91,75	120,02	26,60	51,39
Age of the firms, years***	14,75	15,85	12,71	13,18
Average number of employees*	29,60	40,20	42,40	128,50

** differences are statistically significant at a level of significance α = 0.05 for both sectors – Agricultural sector and Food processing sector*

*** differences are statistically significant at a level of significance α = 0.05 for the Food processing sector only*

**** differences are statistically significant at the level of significance α = 0,05 for small and large firms in the Agricultural sector and for small and medium firms in the Food processing sector*

The absolute values of the net sales and value added per one employee by the innovation active and inactive agricultural firms show differences, with higher values observed in the innovation active firms. The analysis of Food processing sector data is analogous and firms that have costs for intangible assets have higher net sales and value added. The study of the value added differences of innovation active and inactive firms shows that average values of the food processing firms exceeded the average values of the Agricultural sector firms. Analysis of investment in real assets shows a higher investment activity for Food processing sector firms. The cost of real assets for innovation active firms in the Agricultural sector is almost twice as high as that of innovation inactive firms, and in the Food processing sector innovation active firms are more than 7 times more than the innovation inactive. Differences are also observed when comparing the values in Table 1 for the two sectors – the net sales and value added per employee of food processing firms are higher, while agricultural firms show higher investment activity in real assets per employee and age. Net sales of innovation active firms are almost 4 times higher than those of innovation inactive firms. The difference in net sales per 1 employee is relatively small, only 1.5 times, due to large firms, which invests the most in innovation activities but their employment is larger and not productive enough. The same is true for the value added of the Food processing sector firms, the difference between the innovation active and inactive firms is over 6 times, and for value added per 1 employee – 2 times.

[8] We use "Non innovative" for the firms that do not invest in innovation activities

[9] We use "Innovative" for the firms that invest in innovation activities.

Higher employment is provided by innovation active firms. Compared by sectors, the number of employed in food processing firms significantly exceeds those in innovation active agricultural firms (over 3 times more). Additionally, on the basis of unweighted net sales and value added data for innovation active and inactive firms in Agricultural sector, we revealed the presence of significant differences (Table 2).

Table 2. ANOVA of net sales and value added, firms from the Agricultural sector 2015 (Source: created by the author)

Groups		Count	Sum	Average	Variance
Net sales*	Non innovative	540	1431784	2651,452	23098556
	Innovative	212	861398	4063,198	32020219
Value added	Non innovative	540	217472	402,7259	5128546
	Innovative	212	122578	578,1981	2682578

** Differences are statistically significant at the level of significance α = 0.05*

Among the firms that spent on intangible assets in 2015, the number of food processing firms is greater by 73. In terms of relative values, the share of innovation active firms in the Food processing sector is 37.11% and exceeds the share of agricultural innovation active firms, which is 28.19%. The results of the survey show significant differences in the ability of innovation active firms to generate income from their activities. The average net sales for the Food processing sector is 5.26 times greater than that of the Agricultural sector. Although the innovation active firms in the Agricultural sector are only 28.19%, they have generated 1.5 times more net sales - 4063.20 BGN. Even more significant is the difference within the food processing firms - the net sales of the innovation active firms exceed 6 times the net sales of the firms that do not invest in innovation activities.

4. CONCLUSION

Firms in Agricultural sector and Food processing sector that recognize investments in innovation activities as an important factor for higher economic performance represent a low relative share of total number of surveyed firms. Only 35% of all firms undertake innovation investments. Taking into account cross-sectoral differences, we see that innovation active food processing firms hold a relative share of 20% of all and exceeds the 15% share of innovation active agricultural firms. Significant differences are revealed in economic performance and the number of employed in firms with higher innovation activity in both sectors. Innovation active firms have higher productivity and show greater ability to generate net sales and create value added. Concerning investment activity in real assets (machinery and equipment), the innovation active firms show better performance. The highest investment activity is indicated by the large innovation active firms and lowest innovation investments are made by the small inactive firms, both from Food processing sector. However, small agricultural firms manifested higher innovation activity than medium firms operating in the Food processing sector. Small firms in terms of number of employees, are predominant in both sectors, with a relative share of over 70%. Firms operating over 16 years are dominant in our sample. Comparing the two sectors, we found that food processing firms bear larger innovation investments, achieve higher economic performance, and create more value added per employee, however agricultural small and medium-sized firms make larger investments in real assets. Considering the firms regardless their size, we found that, the investments in innovation activities have statistically significant and positive link with economic performance only for the firms in Food processing sector. Differences in the economic performance of innovation active and inactive agricultural firms are significant only in relation to net sales unweighted per employee, and the added value

is insignificant. Investments in real assets and the number of employed are positively and significantly linked with firms' innovation investments in both sectors. Searching for significance link differentiating firms by size, we found out that firms' age and investments in innovation activity are found to be significantly related only for the small and large firms in the Agricultural sector and the small and medium firms in the Food processing sector.

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THE RESEARCH OF INVESTMENT FACTOR IN ECONOMIC GROWTH

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ABSTRACT

The major aim of economic policy of any country is to provide economic growth. One of the important factors is the investments in fixed assets. The role of investment factor in economic growth is researched and results are shown in the article. The econometric analyze of main macroeconomic indicators – GDP in Azerbaijan, investments in fixed assets is the predmet of the article. So the mutual relations GDP in Azerbaijan and investments in fixed assets is researched and the dependence between them is researched by absolute and relative indicators. The econometric models of investment multiplicator and accelerator which is reflected the quantity and quality regularity influence of investment to economic growth and the mutual of relations GDP and investment are established in the article. The run period and force of influence of current and previous invesments to the economic growth is estimated. In present conditions the importance of large scale investments are justified, the model of forecast investment is offered and the forecast fixed assets investments are estimated.

Keywords: *investment, economic growth, multiplier, accelerator, econometric model, forecast*

1. INTRODUCTION

One of the main problems in economics is the increase in the sources of economic growth of the national economy. So, in some countries, for many years, there is a high rate of economic growth, positive dynamics, and the low economic growth in other countries, which is one of the main reasons for economists to think. A number of assumptions have been made about reasons of decreasing rapid growth and economic growth by various economists. At that time various factors of successful development of the national economy are put forward. Discussed factors of economic growth often include investment. The impact of investment on economic growth is a matter of discussion. There are models expressing positive relations between investment and economic growth: the model of the Harrod and Domar (Domar, 1946), AK-model (Frankel, 1962). At the same time, there are models that express negative relations between investment and economic growth: fK-model (Matveenko, 1984, 2005). There are models outlining that there is no relation between long-term economic growth and investment: Solou-Svena (Solow, 1956). Empirical researches can't answer the question about the relations between investment volume and economic growth. Even data analysis allows you to say that the relations between investment volume and economic growth are not exact. For example, let's look at the economic development of some countries around the world. For example, some countries, for example, Singapore, Japan, Thailand, demonstrated high economic growth due to the high share of investment in GDP during the period 1950-2004. However, for example, countries such as Zambia and Iran have managed to reach the lowest economic growth rates,

despite the high investment volume. Nevertheless, for example, a country like Ecuador had a higher economic growth rate than low-volume investments. At the same time it should be noted that almost all countries, such as Rwanda, Uganda, "zero" economic growth or even some, such as low investment volumes (below 10% of GDP) , Madagascar, Senegal, and Niger have shown a negative trend in GDP per capita. Mutual relationships between investment norms and economic growth have been empirically investigated by many economist scientists (Attanasio et al., 2000; Li, 2002; Aghion et al., 2009; Jones, 1995; Madson, 2002).

2. LITERATURE

The role of investment in economic growth and the cause-and-effect relationship between economic growth and investment has been the main subjects of macroeconomic literature (Abdelha fihh, 2013; Baharumshah & Thanoon,2006; Chakraborty & Nunnenkamp, 2008; Lee & Chang, 2009; Li & Liu, 2005; Madsen, 2002; Mah, 2010; Qin, Cagas, Quising, & He, 2006; Zou, 2006). The main hypothesis on the impact of investment on the overall economic growth is that investment expansion has a positive impact on economic growth, and investment has many economic benefits. Many scientists have found that there is a positive relationship between investment and economic growth across countries (Borensztein, Gragario, & Lee, 1998; Hermes & Lensink, 2003; Li & Liu, 2005; Odedokun, 1997; Zou, 2006). It has been generally accepted that investment is the most important factor of economic growth both in developed and emerging economies (Shiau, Kilpatrick, & Matthews, 2002 , Yu, 1998). Similarly, Anwar and Nguyen (2010) and Madsen (2002) reported the two-way cause-and-effect relationship between investments and economic growth based on the nature of the investment. The outcome was mainly that economic growth was conditioned by investments in machinery and equipment At the same time, investment in non-residential construction and infrastructure is based on economic growth. Investment is the most important channel that affects the economic growth through the financial market (Li, 2006). Economic development is linked to institutions, social capital, labor force, real estate, income, wealth (Fagerberg et.al., 2014). But economic development is not just an economic growth Sen (1999). According to Schumpeter (1961), economic development involves the transition to a new, innovative method of increasing the productivity of capitalized designs. Economists have come to the conclusion that the development of high quality institutions is the main factor of economic growth (Rodrik et.al., 2004). Lipset (1959) confirm that the efficiency of socio-economic institutions determines economic development. Institutions are rules of play, existence mechanism, accepted standard, logic of economic development and behavior in society (Ostrom, 1986). Economic development can be viewed as both the floor and the result of economic growth. If economic growth is invested in economic development, it provides vulnerable resources that provide the basis for future economic growth (Amsden, 1997). Unfortunately, the growth of all and any growth is often an easy task to succeed, thanks to long-term goals and targets (Rubin, 1988). Indeed, many conceptual instruments of economist scholars, perhaps, can not solve many economic development issues (North, 1984). It affirms that the neo-classical economy is short-term and the optimal distribution of resources does not fit into a dynamic, long-term disposition that defines the process of economic development. It is assumed that eight years for the academic invention applied to the industry or 18 years for scholarship preparation (Mansfield, 1991).

3. INVESTMENT POLICY IN AZERBAIJAN

As a result of the country's natural resources acquired by Azerbaijan, the expansion of financial opportunities of our country and the measures taken to improve the investment condition led to a steady increase in investment. As it is known, the economy can be used better by using the production funds or replacing old funds with more productive ones and increasing their quantities.

There is no long-term development in the expense of existing obsolete fixed assets. Because their active part - machinery and equipment will wear out quickly, lose their competitiveness and therefore should be updated on average every 7-8 years. Thus, economic development depends on the degree of investment in fixed assets, which is an essential condition for renewal and expansion of production. As the Republic of Azerbaijan possesses strong natural-economic potential, it is attractive in terms of investment. At the same time, the attractive political, socio-economic environment and relatively cheap human resources created for entrepreneurship further enhance this attractiveness. The favorable investment climate created in Azerbaijan is not only a yearly increase in domestic and foreign investment, but also bring the new technologies, production and management methods used in the world economy, and so on. to our country. The main factors promoting investment in our country since 1994 are as follows:

- Ensuring political and economic stability
- Creating a favorable economic environment;
- Increase of the international reputation of the country (increase of credit rating, effective cooperation with international financial institutions);
- successes of the initial stage of privatization (qualitative improvement of economic indicators of privatized enterprises), etc.

The investment policy implemented in the country plays an important role in the economy, including the regions. This policy seeks to create the most favorable legal and institutional environment for attracting foreign and domestic investment. Banks and credit institutions also play an important role in lending entrepreneurial activity and creating favorable investment climate. The basis of Azerbaijan's banking system development strategy is the mobilization of free-of-charge financial resources, transforming them into the real sector in the form of investment and more effective distribution. For this purpose, the qualitative new development of the banking system, the application of modern banking technologies, the formation of a sound and stable legislative framework, and most importantly, their reliability and risk reduction, significant measures have been taken in the warmth. Investment opportunities and investments in the country are rapidly increasing. Rapid growth of investments in the economy of Azerbaijan is a logical result for a favorable environment for both domestic and foreign investment in our country. An exemplary legislative framework for foreign investment has been established guided by tasks and reccommendations given in the field of attracting foreign investments to our country. From the documents adopted in this field, the laws "On Investment Activity" of January 13, 1995, "Investment Competition" of May 16, 1997, "Investment Funds", November 30, 1999, etc. it can be noted. Some of the steps taken to attract and protect foreign investment in our country are related to the approval of agreements on the promotion and mutual protection of investments between Azerbaijan and various countries. Such agreements were signed between Government of the Republic of Azerbaijan and Pakistan, Georgia, Germany, Kazakhstan, Ukraine, Kyrgyzstan, Poland, Austria, France, Iran, Austria and others. developed and developed countries. Significant changes have taken place in the structure of investments. In addition to the oil sector, investments in the non-oil sector across the country are a major stimulus for the development of the economy. Investments in the economy have increased dramatically over the decade than in the early 1990s. The most invested area is industrial field. Investments in this area constitute 70-80% of the total investment volume.

- divide the forming sources of internal investments into two groups:
- State sector (on the account of budget fund);

Private sector: At the expense of the population's own funds and funds of enterprises and organizations;

When nly 20-25% of investments are realized through own funds (amortization and profit) in developed countries, like in other transition economies, 70% of capital investments in Azerbaijan are financed by firms. At the same time, the state-funded capital expenditures in our country are increasing with figures and relative numbers, as shown in the following figures. Over the past 10 years, the physical volume of state capital investments has increased 35 times, and now is the basis of dynamic development in the near future. In 2005-2017, investments in the country's economy have grown mainly due to domestic sources. Investment expenditures were mainly focused on the non-oil sector development goals. In addition to the budgetary funds, other funds have also played an important role in the growth of domestic investment. The volume of domestic investments financed by budget funds increased 1.3 times, and extra-budgetary funds increased by 55%. 35% of domestic investment in fixed capital was spent on budget funds. For comparison, in the corresponding period of 2005, the share of budget funds in the total amount of domestic investments was 35%. Decrease in investment in the oil sector has had a significant impact on the growth of foreign investment. This is primarily due to the fact that investments are mainly directed to the non-oil sector. The share of investment both in size and in total investment. The post-2005 period is characterized by an increase in investment in the non-oil sector. This is the final stage of investment in the oil sector, in other words, the pipeline's operation. The broad using of investments for the development of industry and all areas throughout the country is seen as a step in the country's economy not only for the oil industry but also for the development of the non-oil sector and the further improvement of the country's economy.

4. DATA

During research period 2000-2017, GDP increased 14,87 time and reached from 4718,1 million manats to 70135,1 million manats. This result has increased 5,60 times in comparison with 2005, 1,65 times in 2010, 1,19 times in 2014, 1,29 times in 2015, 1,16 times in 2016. In 2000-2017 GDP in industry has increased 16,53 times and reached from 1999,6 million manats to 28087,3 million manats. This result has increased 4,53 times in comparison with 2005, 1,28 times in 2010, 1,16 times in 2014, 1,57 times in 2015, 1,25 times in 2016. In 2000-2017 GDP of agriculture has increased 5,20 times and reached from 758,9 million manats to 3949,3 million manats. Current indicator has increased 3,47 times in comparison with 2005, 1,68 times in 2010, 1,26 times in 2014, 1,18 times in 2015, 1,17 times in 2016. During 2000-2017 GDP in construction area has increased 21,71 times and reached from 308 million manats to 6687,2 million manats. This result has increased 5,93 times in comparison with 2005, 1,94 times in 2010 and decreased 10% in comparison with 2014m, but again increased as 3% in 2015 and 5% in 2016. . In 2000-2017 GDP in transport and communication field has increased 10,36 times and reached from 567,1 million manats to 5875,5 million manats. This indicator has increased 6,41 times in comparison with 2005, 1,86 times in 2010, 1,58 times in 2014, 1,36 times in 2015, 1,14 times in 2016. During 2000-2017 in other fields GDP increased 18,66 times and reached from 1093,9 million manats to 20413,9 million manats. And this result has increased 9,31 times in comparison with 2005, 2,35 times in 2010, 1,27 times in 2014, 1,17 times in 2015, 1,12 times in 2016. Net taxes in 2000-2017 increased 17,59 times and reached from 291,2 million manats to 5121,9 million manats. This result has decreased 5,41 times in comparison with 2005, 1,78 times in 2010, 16% in 2014, but increased 5% in comparison with 2015, 3 % in 2016. The above mentioned processes occurred as investments. Thus, during 2000-2017 research time total investment has increased 18,01 times and reached from 967,8 million to 17430,3 million manats. This result increased 3,02 times in comparison with 2005, 1,76 times in 2010, but decreased 1% in comparison with 2014, and again increased 9% in 2015, 5% in 2016. Industrial investment has increased 15,83 times and reached from 670,1 million to 10610,1 million during 2000-2017.

And this result has increased 2,54 times in comparison with 2005, 2,48 times in 2010, 1,39 times in 2014, 1,25 times in 2015, 7% in 2016. During 2000-2017 investment in agricultural field has increased 95,05 times and reached from 6,5 million manats to 617,8 million manats. This result has increased 15,18 times in comparison with 2005, 1,43 times in 2010, 1,70 times in 2014, 1,74 times in 2015, 1,90 times in 2016. During same years the investment in construction field has increased as 807,65 times and reached from 3,4 million manats to 2746 million. This indicator has increased 59,57 times in comparison with 2005, 24,13 times in 2010, 1,24 times in 2014, 1,29 times in 2015, 1,22 times in 2016. For 2000-2017 investment in transport and communication field increased 21,81 times and reached from 89,4 million manats to 1949,6 million. This indicator has decreased 2,89 times in comparison with 2005, 27%, in 2010, 25%, in 2014, 23% in 2015 but increased 22% in 2016. During 2000-2017 GDP has increased as 7,59 times and reached from 198,4 million manats to 1506,8 million. This result decreased 1,81 times in comparison with 2005, 38% in 2010, 69% in 2014, 38% in 2015 but increased 40% in 2016.

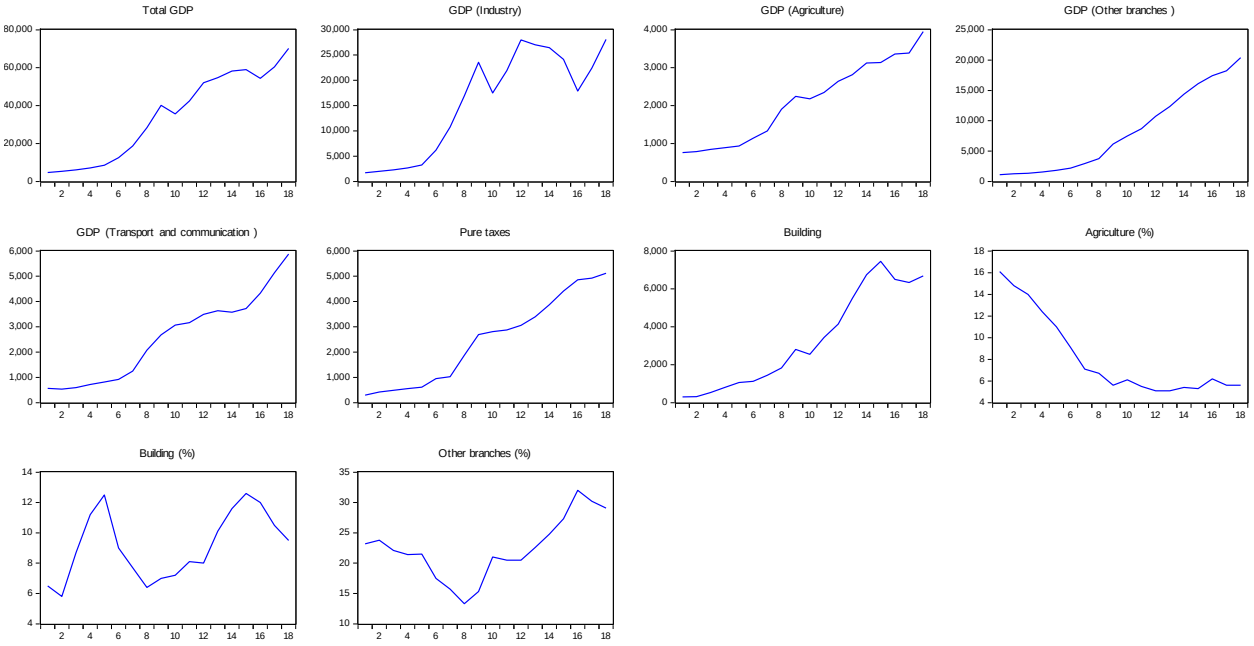


Figure 1: Dynamics of GDP of Azerbaijan

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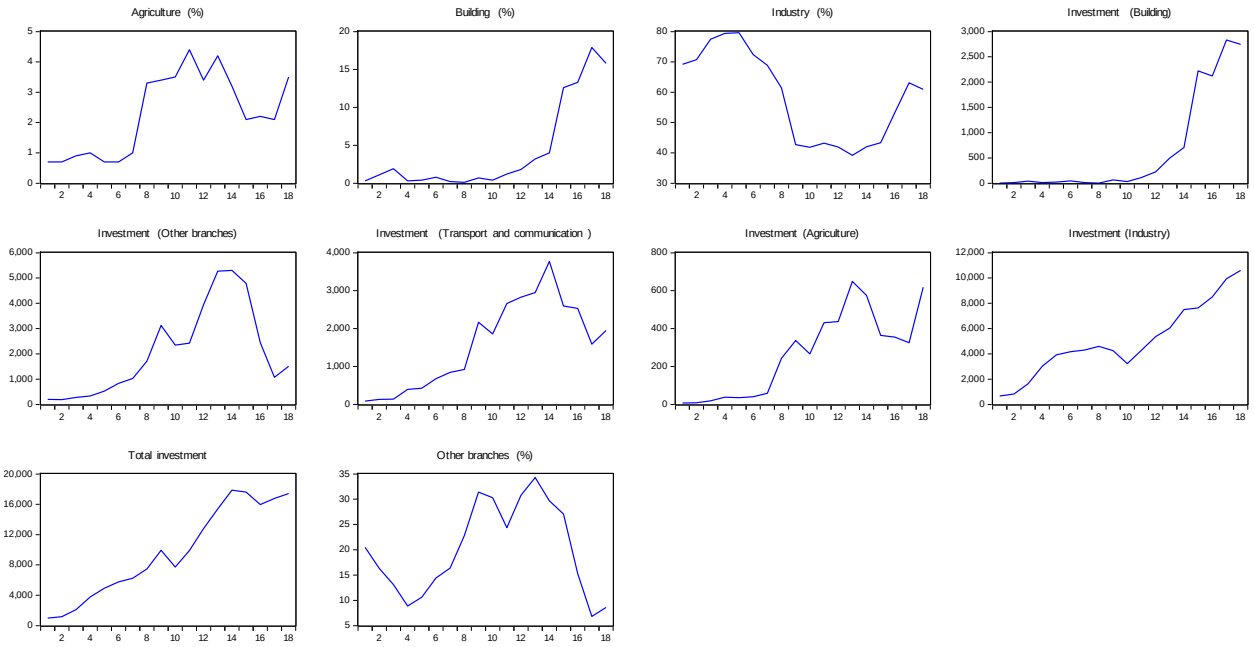
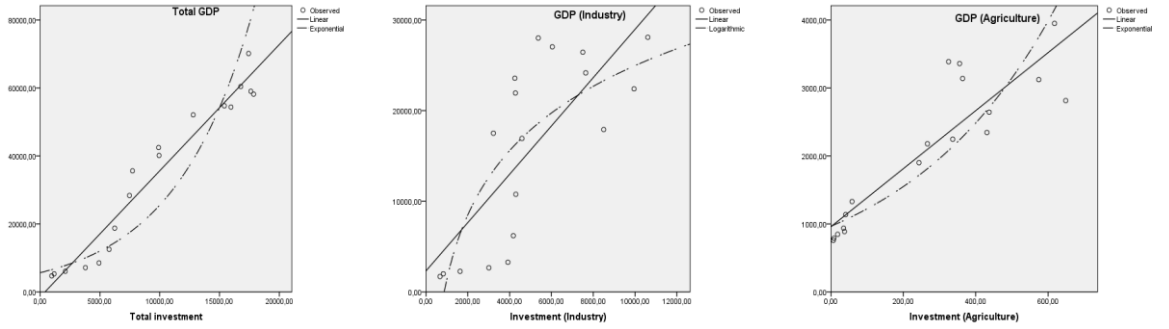


Figure 2: Dynamics of investments of Azerbaijan



Exponential $Y=5666{,}185e^{0{,}00015x}$

Logarithmic $Y=-69271{,}167+10231{,}512\ln x$

Exponential $Y=746{,}88e^{0{,}000177x}$

Exponential $Y = 694{,}276e^{0{,}00424x}$

Cubic $Y=1273{,}584+7{,}344x-0{,}005x^2+1{,}15E\text{-}06\,x^3$

Power $Y=17{,}227x^{0{,}799}$

Figure 3: Models and graphs of GDP versus investment

Drafted models are mainly chosen in accordance with high level of R^2 and statistical importance of t-statistic coefficient. In this case for total dependence on investments of GDP in industry logarithmic, in agriculture and construction exposene, in transport and communication cube function, and in other fields force function have been chosen.

5. CONCLUSION

In the frame of state investment policy all forces should be directed to movement of new investments which assists maximum use of existing resources. Investment renewal acts as optimal strategy directed to obtaining low inflated economic development that observing development of new work places and increasing of purchasing power of population in the state. Although that, investment policy in modern world bases on self-financing of most part of capital investment, development of mechanisms and infrastructures of material-technical resources market, principles of agreement and returning system between participants of investment process, some kinds of complete programs needs support of government. For this purpose, investment policy should be built productively by straight support of government and realized in more sufficient from in future.

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LONG TERM ECONOMIC SUSTAINABILITY IN THE PERSPECTIVE OF AZERBAIJAN

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ABSTRACT

Azerbaijan as an oil-rich country faced a wide range of problems in the way of transformation to the capitalist system. Especially, weak institutional development, high level of "shadow economy" and high dependency from oil and gas exports created economic threats and weakened sustainability. In this research paper, we have tried to find an answer to the main research question: How can the innovation-based economy play a role to decrease import dependency and reinforce export in Azerbaijan? We have taken into consideration the official data (Azerbaijan State Statistical Committee) for the geographical structure and development dynamics of foreign trade during 1997-2017. Analyzing this data and taking into account the institutional structure of the economy of Azerbaijan, we have established a model that offers a framework to launch and develop an innovation-based economy in the long run. The main results of the analysis show that Azerbaijan in the period from 1997 to 2017 mainly was dependent on natural resources and increased the stickiness to imports in different sectors. High dependency on natural resources creates new threats in front of the sustainability of the country. Because of these factors, Azerbaijan requires to realize a transformation to the innovation economy. By introducing a significant import dependency as a factor, we have limited the reasons for economic security. The further research on other factors of economic security and investigations about building an innovation-based economy in Azerbaijan are significant.

Keywords: *sustainable development, innovation economy, economic security, and economic growth*

1. INTRODUCTION

This research paper investigates the role of innovation-driven economic system and its role to decrease import dependency and reinforce export in Azerbaijan. As a developing country, Azerbaijan faced many problems in the pathway of transition to the capitalist system. The main problem was and still remains as dependency on the export of natural resources and country imports technological and manufactured goods. These issues create a continuous threat in front of the national economy. The solution to the problems mentioned above needs a complex approach to orthodox macroeconomic policies. Several investigations were held by different authors in order to show the current situation of Azerbaijan economy and to identify the role of institutional reforms, export-led growth strategy and its impacts and innovation-based export policies. Ahmadov, I., Mammadov, J., Aslanli, K., Guliyev, F. (2016) investigated the new challenges and opportunities in front of Azerbaijan economy after the price shock since September 2014. The authors focusing on new macroeconomic conditions, existing monetary policies against oil price shocks, fiscal regulations and social policy perspectives. This research paper mainly focuses on the import dependency of Azerbaijan from technological and manufactured goods and innovation-driven export.

This paper is a policy recommendation to achieve long-term sustainable economic development in the context of foreign trade of Azerbaijan. Two main hypothesizes were determined to explain these processes:

- Hypothesis 1: Export-oriented foreign trade policies are the base to achieve long-term sustainable economic development
- Hypothesis 2: Innovation is an important factor to accelerate export

The first hypothesis tries to explain the export-led growth model, which shows that the countries owning a developed export structure are more successful than resource-based economies and they are able to provide economic security in the long-run perspective. Growth in export as a result of technological diffusion and other economic factors stimulates trade among countries. The economic crisis that country faced since September 2014, after a decline in crude oil prices in global market enforces export-led growth strategy in the post-oil period of Azerbaijan. In order to explain the second hypothesis, the current position of Azerbaijan in the Global Innovation Index was presented for 2013-2017 years; the facts already presented in different investigations were introduced. To justify this hypothesis the paper is exploring the correlation between innovation-driven export and long-term sustainability.

2. LITERATURE REVIEW

The analysis in the different context of the relationship between foreign trade and sustainable development is actual. This research based on the results of two main sub-parts of trade policy – macroeconomic threats because of high dependency on import and positive effects of import on sustainable development in the practice. Previous investigations mentioned below are based on the data of different countries and are significant to present policy recommendations to the Azerbaijan economy. Zhang and Zou (1995) analyzed 53 developing countries in order to stress the relationship between economic development and the import of technology. According to this research, the process of economic development in developed countries is different compared to the process in developing economies. Productivity in developing countries mainly depended not only on innovations; also, it relies on technology transfers, import of machine and equipment from different countries. (Zhang and Zou, 1995) This investigation examines the influences of the share of technological investments in GDP to economic development. The main result is about the positive impacts of imported technology on sustainable development in all analyzed countries. Oskooee and Domac (1995), Awokuse (2007), Gerni (2008) and Qiang (2010) analyze the role of imports on the sustainable economic development of developing countries. The common hypothesis of these investigations is that there is a positive correlation between changes in the share of intermediate industries in the structure of import and sustainable economic development. Another group of researchers such as Musonda (2007), Olaniyi (2013) and Bilas (2015) indicate the role of export-oriented trade policies as a driver of sustainable economic growth. These investigations also stress the role of import substitution policies as a base for export-oriented trade policies in the long run. Agayev (2011) introduced analysis for 12 post-soviet countries, partly for Azerbaijan in order to test the relationship between export and sustainable economic development in these countries. The main conclusion of this research is that long-run dependency on one-industry results with the high level of export in this field, but cannot accelerate economic development. To achieve high and sustainable economic development countries like Azerbaijan need to adopt the economic system to the innovation-based export. Previous studies in the long-term economic sustainability of developing countries mainly were based on the level of innovation policies realized in these economies. American economist, Joseph Schumpeter (1942) mentioned the role of innovation in production and economic growth in the long-run perspective. Innovation process includes a Research & Development (R&D) activity that is able to improve production and export of

developing countries, particularly export of Azerbaijan. Shahin (2015) claims that it is difficult for countries to achieve sustainable growth without effective R&D activities. Studies in this field such as Frantzen D., (2000) Rachel G., Redding S., & Van Reenen J., (2001), Savrul, M. and Incekara, A. (2015), Cin, B.C., Kim, Y.J. & Vonortas, N.S. Small Bus Econ (2017) indicate that there is a positive relationship between expenditures on R&D and long-run economic development. Ahmadov (2016) analyzed new macroeconomic conditions of Azerbaijan after a rapid decline of crude oil prices in the world market since September 2014 and its significant effects on economic growth of Azerbaijan. The author claims the difficulty to establish a new development model in the short after high dependency on oil for several years. Ahmadov (2016) indicated a high level of risk under financial and macroeconomic pressures and the negative impacts of an unregulated economy, which was mentioned as "informal economy" on the realization of new institutional reforms to regulate the national economy. This is a barrier in front of administrative reforms and traditional ways of managing the crisis, such as a supply of money and credits are not effective. Ahmadov (2016) underlines the importance of implementation of institutional changes in order to overcome the results of the crisis in the Azerbaijan economy. Mammadov (2016) analyzed the new monetary policies of Azerbaijan government after oil shock in a global market. The author mentions that the depreciation of national currency (manat) has created a new perspective in front of the Azerbaijan economy to develop the structure and the level export and to achieve long-term sustainability. Mammadov (2016) stresses the role of foreign direct investment (FDI) to attract new capital to the different fields of the national economy and to decrease the cost of production. Aslanli (2016) investigated the role of fiscal policies in Azerbaijan after the decline in crude oil prices in order to regulate the crisis. The author mentions the impacts of high volatility of crude oil prices on the fiscal position of the government, which is not stable. Aslanli stresses a need for new financial regulation in order to achieve long-term sustainable development.

3. DATA AND METHODOLOGY

This study is aimed to investigate the role of innovation-based economy to decrease import dependency and reinforce export in the long-run perspective of Azerbaijan economy. Qualitative and quantitative research methods were used to achieve this goal. It includes different methods such as data collection and its analysis. Data collection and analysis: Data for foreign trade of Azerbaijan, data for the innovativeness of Azerbaijan economy, and their analysis are the main methods of data collection. Global Innovation Index data, The State Statistical Committee of Azerbaijan, other primary and secondary sources are to be utilized depending on the necessity.

4. INNOVATION-BASED ECONOMY TO DECREASE DEPENDENCY ON IMPORT AND ACCELERATE SUSTAINABLE DEVELOPMENT

4.1. Export-led growth model as a driver for long-term economic sustainability

4.1.1. Historical context of sustainable development and its importance for Azerbaijan

The significant multidisciplinary position of sustainable development concept stimulates researchers to investigate the role of this concept in different economic issues. Different reports and conventions introduced by several international organizations explained the role of the sustainable development concept in order to stress its importance. Starting with the Stockholm Conference in 1972, leading to Rio (Rio+20) Conference 2012, this process improved sustainable development phenomena and stimulated in a global context. One of these reports is "The Limits to Growth" introduced in 1992. Global economic structure introduced in this report still is significant for resource-based economies like Azerbaijan (Meadows, D., et. al., 1972). Sustainable development is a multilateral process and includes different economic factors, such as capital accumulation, trade, institutional development, ecological sustainability, political

factors and the distribution of income.

4.1.2. Analysis of participation of Azerbaijan in Global Trade

Azerbaijan is not a member of World Trade Organization (WTO) and this factor restricts the chances of country to participate in free trade. High dependency on natural resources and non-membership of WTO as the two main factors determines the position of Azerbaijan in Global Value Chain (GVC). Table 1 indicates the dynamics of foreign trade turnover of Azerbaijan during 2013-2017, according to the official data represented by State Statistical Committee of Azerbaijan.

Table 1: Dynamics of foreign trade turnover

Years	In million US dollars				Percentage change from previous year *)		
	Turnover	Imports	Exports	Balance	Turnover	Imports	Exports
2013[2]	43,554.1	10,712.5	32,841.6	22,129.1	102.7	109.1	100.7
2013	34,687.9	10,712.5	23,975.4	13,262.9	106.3	109.1	105.1
2014[2]	39,407.5	9,187.7	30,219.8	21,032.1	95.7	85.4	99.0
2014	31,016.3	9,187.7	21,828.6	12,640.9	94.1	85.4	98.0
2015[2]	25,809.0	9,216.7	16,592.3	7,375.6	99.9	99.5	100.1
2015	21,945.8	9,216.7	12,729.1	3,512.4	104.3	99.5	106.3
2016[2]	21,596.6	8,489.1	13,107.5	4,618.4	92.7	89.6	94.4
2016	21,946.7	8,489.1	13,457.6	4,968.5	112.9	89.6	129.7
2017[2]	24,257.6	8,782.0	15,475.6	6,693.6	89.3	83.9	92.9
2017	22,593.6	8,782.0	13,811.6	5,029.6	80.0	83.9	77.6

1) Data of the State Customs Committee

2) Statistical data - taking into account volume and estimated statistical value of factual exported crude oil and natural gas crossed country border but not made official in the customs committee in the reporting period.

**) Indices for 2010-2017 were calculated by taking into account price factor.*

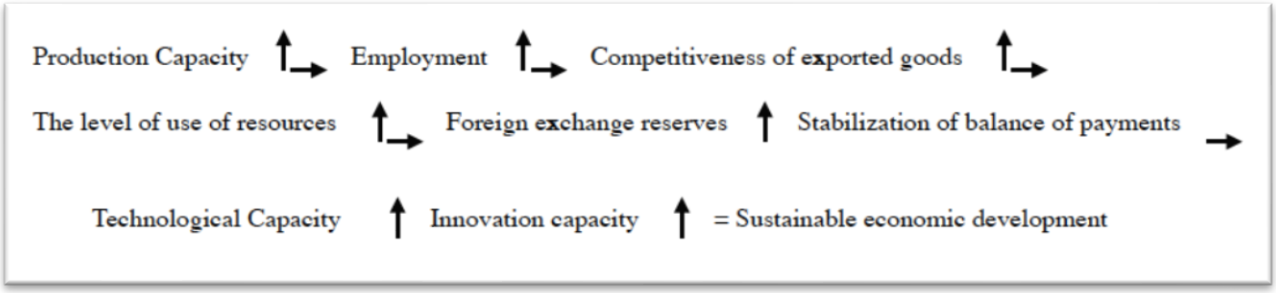
Source: State Statistical Committee of Azerbaijan, https://www.stat.gov.az/source/trade/

4.1.3. Potential application of Export-led growth model in Azerbaijan

In the context of recent global economic recessions, many national economies design foreign trade strategies in order to achieve sustainable development. In one hand, these strategies are aimed to prevent the economic security threats and on the other hand, they are playing an accelerator role for sustainable economic development. Because of the wide application of export-led growth models since 1970s, the significance of import substitution policies was decreased. Seyidoglu (2015) stresses that the positive effects of export growth in the development of production are accepted as a hypothesis for export-led growth. The case of Germany, Finland, Japan, South Korea, China, Malaysia, Thailand, Taiwan and Singapore are the most successful experiences in this regard. Developed export policies realizing the distribution of resources accelerate economic development. In the export-led growth model increase in export is accepted as one of the main determinants of development. (Hausman, R., Hwang. & Rodrick, D., 2007) There two main sides of connection between export and economic development: growth in export and economic growth. There is a positive correlation between these two sides. Previous investigations show that enhancement in export plays a role of accelarator for production in different fields of economy.

As a result of our research, after export-led growth model can be applied for Azerbaijan economy in order to achieve long-term sustainable economic development. This process and its possible outcomes can be explained as below:

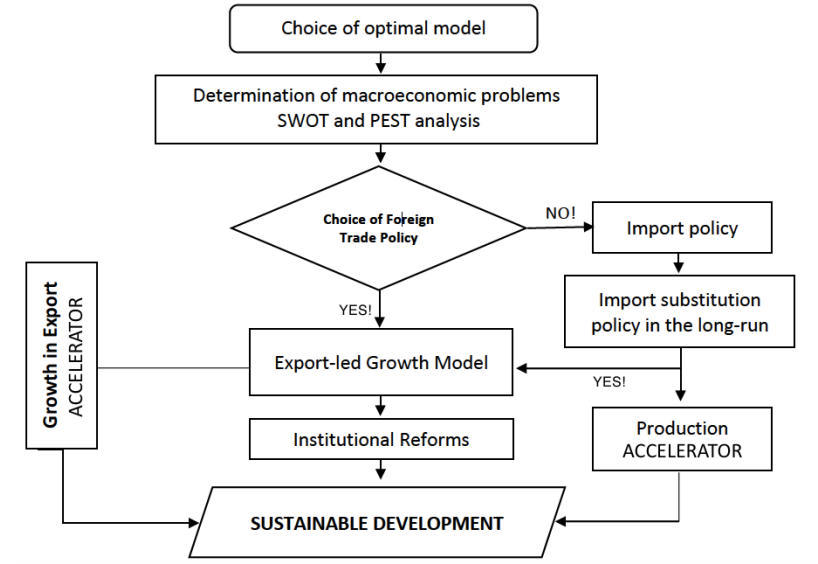
Figure 1: Application of the export-led growth model and its macroecnomic outcomes.



Source: created by the authors based on the application of export-led growth model in different countries.

Weak institutional development, high level of "shadow economy" can be a barrier in front of the realization of different economic reforms in order to gain long-run sustainable economic development in Azerbaijan. As a theoretical result of our research, realization of export-led growth model's algorithm can be introduced as:

Figure 2: Algorithm of the application of export-led growth model in Azerbaijan



Source: created by the authors based on the application of export-led growth model in different countries.

4.2. Innovation is an important factor to accelarate the export of Azerbaijan

One of the main goals of this research paper is to discover the role of export-oriented industrialization in the economic development of Azerbaijan. The significant impacts of innovation-based production on the diversification and acceleration of export is analyzed in this part. The importance of diversification of exports was mentioned above. According to the structural models of development, the countries should realize the transformation from primary products to manufacture (Chenery, 1979, Syrquin, 1989).

Prebisch – Singer Hypothesis (PSH) stresses vertical export diversification, which is able to improve the conditions of developing countries in global trade. This Hypthesis indicates that the relative price of traditional goods has a declining trend compared to the manufactured products. (Cuddington J.T., Ludema R., Jayasuroa S.A., 2002)

4.2.1. Azerbaijan in Global Innovation Index (2013-2017)

Table 2 presents the position of Azerbaijan in the Global Innovation Index between 2013 and 2017. During these years, Azerbaijan realized progress in positions, but this is not sufficient to establish innovation-based economy to have long-run sustainability. Establishment Azerbaijan National Innovation System (ANIS) is able to overcome these issues and to develop innovation capacity of the country and to face long-run sustainability.

Table 2: Azerbaijan in Global Innovation Index (2013-2017)

Year	**Position**	**Innovation Index**
2017	82	30.58
2016	85	29.64
2015	93	30.10
2014	101	29.60
2013	105	28.99

Source: Global Innovation Index reports (2013-2017)

4.2.2. Main factors to make a transformation to the innovation-based export in Azerbaijan

In order to make a transformation to the innovation-based economic system Azerbaijan should enhance its capacity in innovation; invest in Research & Development (R&D), to apply new institutional reforms. The reforms mentioned below can be an accelerator of sustainability of Azerbaijan economy in the long-run perspective:

- To identify the field that innovation policies will be implemented;
- Determination of planning in the innovation system, an organization of infrastructure and resources and identification the role of different state institutions in order to manage the system;
- Development and application of Research & Development (R&D) and Science & Technology (S&T) policies;
- Creation of demand for technology in the country in order to stimulate the supply of technology;
- Organization of knowledge and technology transfers;
- Establishment of industrial centers in different regions of the country and the transfer of R&D activities through these regions;
- Determination of research universities and the establishment of "shared vision" with public and private research universities to increase the level of R&D activities;

5. CONCLUSION

This research paper indicates an overview of the current structure of the Azerbaijan economy, focusing on foreign trade conditions and innovativeness. Starting with the analysis of participation of Azerbaijan in Global Trade the paper explains high import dependency in technological and manufactured goods. The paper offers a model for Export-led growth model as a driver for long-term economic sustainability and stresses the main outcome of this model as weak institutional development, high level of "shadow economy" can be a barrier in front of the realization of different economic reforms in order to gain long-run sustainable economic

development. The algorithm of the export-led growth model was introduced to show the importance of innovations in the long-run perspective of the national economy. Explanation of the second hypothesis introduced the data that showed the position of Azerbaijan in the Global Innovation Index to point out the weakness of Azerbaijan Innovation System. This is a very strong argument for why Azerbaijan should make a transformation to the innovation-driven economy and make institutional reforms. The reforms such as development and application of R&D and S&T policies, an organization of knowledge and technology transfers, creation of industrial centers in different regions, transfer of R&D activities through these regions were introduced as a policy recommendation to strengthen the sustainability of Azerbaijan economy in the long-run perspective. The main outcomes of this research can be of significance for theory-based policymaking by the national government. The results of the research could also serve as an important framework for further investigations in future models of the Azerbaijan economy in order to achieve long-term sustainable development.

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CONTENT COMMUNICATION IN BUILDING BRAND IMAGE VIA SOCIAL MEDIA - CASE STUDY

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ABSTRACT
The aim of this article was to determine the place and significance of the content communication in building the right brand image using social media. The following thesis was taken into consideration: in the days of IT development the decisive role in building the right brand image on the Internet is played by methodical publishing of attractive and useful content as a manifestation of content marketing of the brand. Starting from the definition, the instrumentarium and the strategy of applying the content communication, the following concepts were described: the brand image and fundaments of its building. The theoretical deliberations were supported by the results of the author's own research based on the study case method. In the consequence, the comprehensive application of the varied forms of content communication via social media for the Rimmel brand was presented in this article. It is to help to enhance the unique image of the examined brand, to contribute to build its community and to bring measurable results in such a competitive branch as the cosmetics is.
Keywords: *content communication, brand image, content communications using social media, case study*

1. INTRODUCTION

In marketing activities for brands, increasingly subtle strategies and techniques are sought. This quest results from conditionalities such as information noise, over-satiety with traditional persuasive advertising, over-abundance of stimuli; the need to attract attention and distinguish itself from the competition; technical and technological advancement; or a dynamic development of web functionalities. At the time of information society, over-abundance of information hampers the operations of both the entrepreneurs (due to e.g. information noise), and the target audience (flood of useless information, intrusive promotion). Moreover, hypermedial (Kitchen, Proctor, 2015, pp. 34–42; Mazurek, Tkaczyk, 2016, pp. 181–242) environment and the attacks by means of communications in a variety of forms targeted at the recipients by all the media – press, radio, television, Internet, mobile networks – necessitates imposition of some limits on delivery of burdensome information and prioritisation of the one which is functional and useful. This article aims at defining the position and role of the content communication in creation of a proper brand image on the Internet. The considerations are structured around the following thesis: in the era of development of information technologies, an important role in creation of a proper brand image in the web is played by methodical publication of attractive and useful content as a reflection of content communication for a brand with a specified and desired image. Theoretical considerations are enriched by results of own research conducted by means of the case study method. In particular, the answers to the following questions are sought: have any forms of content marketing communication been undertaken for the studied brand, and if yes, in what form? How were they responded to by the stakeholders? Which brand image features have been strengthened? What results have been achieved? How did it influence the Internet brand communities? What are the implications in the cosmetics industry? It is therefore necessary to present some basic theoretical issues.

2. THE ESSENCE OF CONTENT MARKETING COMMUNICATION IN SOCIAL MEDIA

Social media (Chaffey, Smith, 2017, pp. 224 –230; Stawarz-Garcia, 2017, pp. 93–119) are a specific type of aggregation platforms enabling integrated marketing communication and other functionalities on the Internet. The notion relates to all Internet media and mobile technologies which provide a means of multi-level communication with others. The communication tools for creating and sharing diverse resources are provided by social portals such as Facebook, You Tube, Twitter, Pinterest, Google +, Instagram, and many more. Communication via social media (Bonek, Smaga, 2013, pp. 24–30; Scott, 2015; Singh, Duhan, 2016, pp. 62–88 ; Stępowski, 2016, pp. 20–102 ; Stawarz-Garcia, 2017, pp. 89–136; Wyrwisz, 2017, pp. 43–53; Ekhlassi, Moghadam, Adibi, 2018, pp. 61–168; Lieb, Szymanski, 2018, pp. 125–142; Mazurek, 2018, pp. 365–382) encompasses inter alia: funpages content, competitions, blogs, videoblogs, Internet fora, discussion lists, etc. For example, a content marketing agency informs of the following types of services it offers (www.they.pl): content on the website (information about the company and its offer, products and services description, news, expert how-to articles, commentaries and opinions published in the site); articles, promotional publications (promotional articles for publication in thematic services, information notes for industrial services, press information); blogs (articles in blogs, commentaries in blogs, responses to users' commentaries, photos and graphics in blogs; guides, reports (PDF publications: short periodic reports, guides, instructions, and comprehensive reports); infographics (Stopka, 2017, pp. 29–36), maps, charts (infographics which enable finding a compromise between an attractive form and content, statistics in the form of charts, maps, and other graphic visualisations); videos (short advertising films, instructional films such as "how to assembly a table", advisory films on "how to fill in a traffic incident report form), and many other, depending on the needs and inventiveness.

3. PRESENT DAY BRAND AND FOUNDATIONS FOR ITS DEVELOPMENT ON THE INTERNET

Present day brands constitute a specific type of conglomerates. They mark a variety of market entities (persons, cities and towns, organisations, products, etc.) and their building involves methodological marketing activities. An important phenomena in brand management (Keller, 2013, pp. 563–654) is its personification, i.e. attaching human features to it, by which "they can communicate" (Jefferson, Tanton, 2013) with stakeholders (Kotler, Kartajaya, Setiawan, 2017, pp. 119–128), and even in some sense "interact with them". Brand personality helps to achieve distinctiveness even in a crowded market, assists in building relations with partners, and facilitates the process by which the brand is more easily remembered. Personified brands play an important role in the stakeholders' lives (Dahlen, Lange, Smith, 2010, pp. 236–272; Rowles, 2014): they not only offer products, but provide an opportunity to identify oneself with them and – due to the Internet profiles – to participate actively in the life of their community. Present day brands have an impact on actions undertaken by the stakeholders, create various values, and the marketing activities performed for the purpose of their building generate experience, as well as provide a chance for participation in a variety of endeavours under their emblem. In turn the brand image (Arnhold, 2010, pp. 37–39) is a composition of opinions, judgements, and perceptions attached to it. In brand management, the important role in the current market conditions is played by methodical shaping of their distinctive image (Tarczydło, 2013, pp. 16–20). In practice it means that a brand should rise connotations with a list of unique features which generate specific value (Kotler, Kartajaya, Setiawan, 2017, pp. 161–176) to the stakeholders. Since the brand image is a result of an individual's sensory experience in contact with a brand, its owner should aim at enhancing the features related to the identity, lifestyle, and personality of the client/stakeholder.

Methodical shaping of brand image constitutes an overall set of proceedings, and therefore a long-term process, which requires undertaking of specific measures and implementing of a consistent strategy of operation. Contemporary pro-image activities comprise extensive communication channels, in particular the Internet, in which the social media proliferate. The brands present on the web not only offer the opportunity to form mutual relations, as they usually have a specific personality, but seem to be fully interested in clients-Internet users, their views, remarks, opinions, and even feelings. This facilitates the process of generation of common values, development of cooperation, and loyalty building. The cyclical procedure (Tarczydło, 2013, pp. 167–169) of integrated activities for proper brand image should include a body of activities addressed to the stakeholder's mind, soul, and body, which relates to a holistic (Kotler, Kartajaya, Setiawan, 2017, pp. 41–42) treatment of a human being (= reacts on all levels at the same time, i.e. the mental, physical, and spiritual). The conclusions derived from literature studies have been subjected here to critical review in the context of economic practice.

4. EXAMPLES OF USE OF CONTENT COMMUNICATION FOR RIMMEL BRAND

For the purposes of this study, a case study has been conducted for the Rimmel brand from the point of view of its communications policy. The answers to the following questions were sought: are there any forms of content marketing communication published on the Internet for the studied brand, and if yes, what are their types; what role do they play in the process of building of a proper image for the Rimmel brand; who performs these processes; what are the results of these actions. Rimmel (O Rimmel, 2019, www) is a brand with a history spanning almost two centuries. The brand owner has changed several times, but since 1996 it has been part of Coty, Inc. The cosmetics bearing the brand in question are available for sale in approx. 40 countries worldwide. Since 2001, the Rimmel brand has been represented by the supermodel Kate Moss (Collins, 2009, p. 249), who has been using the cosmetics since her teenage years. The Rimmel brand offer comprises numerous make-up cosmetics: a variety of mascaras, powders, foundations, blushes, eyeshadows, lipsticks, glitters, lip colours, and nail coats. This study has been specifically focussed on the use of inbound marketing for the studied brand.

Table following on the next page

Table1: Selected examples of content communication on the web for the Rimmel brand (Source: own elaboration on the basis of conducted case study)

Communication media and forms on the Internet	Examples of applications
Website of the brand and its information resources group	The website of Rimmel London Polska – http://pl.rimmellondon.com – contains information structured into groups. Primary bookmarks in the heading are as follows: products, get the look and hot news. The second layer has been divided into: Where to buy?, My Rimmel, and Rimmel in Social Media. Finally, under the "About us" bookmark interesting content can be found: about the brand, terms and conditions, privacy policy, and contact details. The products on offer have been grouped into the following categories: face, eyes, lips, and nails. It is interesting to note the statement in the bottom right side of the site: "Rimmel London against animal testing. Find out more".
Information on products, industry services	For example: on Rimmel eyeshadows, Metallic Cream Shadow with a possibility to be reviewed by the interested users who can get involved in a discussion forum – including the opportunity to propose the topic for discussion – http://wizaz.pl/kosmetyki/produkt.php?produkt=4165 – a unique combination of pigment and mother-of-pearl ensures exceptional gloss in 8 brilliant opal shades. Light, creamy consistency allows for make-up to be applied with fingertips. The shades can be mixed to obtain a unique effect. Cosmetics – opinions and reviews – Cosmeticopedia – Stylistka.pl – kosmetyki.stylistka.pl/ – a service for women presenting advice on fashion, beauty, stylisation, cosmetics, most recent collections, fashion haircuts.
Press information	high value content for media professionals, for example: http://www.o-m.pl/informacje_prasowe/103/rimmel-rozpoczyna-wspolprace-z-os3.html Rimmel starts cooperation with OS3. OS3 Agency has been selected in the tender process to present the Rimmel Polska brand in social media. OS3 will be responsible for comprehensive presentation of Rimmel Polska in Facebook. The Agency will take care for graphic creations, photos, and – in cooperation with the make-up expert Andrzej Sawicki – coordination and performance of photo sessions. Communications strategy provides for the use of inter alia applications. Rimmel is a brand dedicated to young, modern, brave, and active women. The brand is part of Coty, Inc., prepared by Angelika Rusiecka.
Promotional publications	http://www.rossnet.pl/Produkt/Rimmel-Wake-Me-Up-podklad-do-twarzy-1szt-pelna-oferta,114350,promocja14, special offer for the Rimmel primer which prepares the skin for a brighter, more radiant complexion, giving it a perfect look, acts immediately to eliminate the signs of tiredness, contains peptides and moisturising vitamin complex.
Blogs	official Rimmel brand blog – Five o'blog – http://blog.rimmel.info – conducted by two young women: Ola and Marta, who comment on the most recent make-up trends, novelties from the fashion world, most up to date news about celebrities (including Kate Moss, who is the face of the Rimmel brand), and actualities from the capitals in Europe and overseas. Other blogs: http://www.zeberka.pl/art/kate-moss-w-najnowszej-kampanii -marki-rimmel-29812 Blog focussed on cosmetics, cosmetics reviews, skin care, etc. sparklesbeauty.blogspot.com/ Agnieszka Grzelak - Beauty Blog | Make-up, advice, etc.blog.grzelak-makeup.com/
Guides	http://poradnik.kobieta.gazeta.pl/szukaj/poradnik/rimmel, minimalist style with a rock edge – such a description can be provided for the spring edition of the Rimmel brand make-up presented by the brand ambassador Kate Moss.
Forum	for example http://wizaz.pl/forum/showthread.php?t=777111, new foundation Rimmel Lasting Finish 25 HR, Rimmel brand loves to face new challenges and achieve ambitious goals. This time the ambition has been set really high, as the brand has decided to improve its best-selling product to a new level of perfection.
Comments and opinions	http://rimmel.nowekosmetyki.pl/, Rimmel Match Perfection podkład, blodka, I have a 010 Light Porcelain colour – ideal for pale skin tone like mine. And at last I have found a perfect light foundation for summer. Its consistency is just right – light and liquid. I tap it in delicately with my fingertips and it merges with my skin really well for an even natural skin tone. And what is best – even after the whole day I haven't noticed any darkening on my face. The foundation provides an even skin colour and smartly reduces dark circles under my eyes. However, it does not manage to mask larger skin imperfections and unfortunately it is necessary to use a corrector. After about 5 hour the face begins to shine in oily parts, but it is still a good result for a cosmetic which is not designed for matte finish. An attractive and comfortable packaging with a pump and the efficiency top up the satisfaction. I will definitely use the cosmetic this summer :)
Video	video materials for example: http://www.gazeta.tv/Wideo/10,132445,154 40938, recenzja_podkladu_matujacego_do_twarzy.html, a vloger tests new product by Rimmel – a mattifying foundation from the Stay Matte range. http://kobieta.spryciarze.pl/zobacz/jak-zrobic-makijaz-jesienny-od-podstaw, how to create an autumn make-up from the start.
Brand profiles in social media	Rimmel Poland has its profiles run on: Facebook (https://www.facebook.com/rimmellondonPL/), Instagram (https://www.instagram.com/rimmellondonpl/), Pinterest (https://pl.pinterest.com/pin/541628292679513092/; https://pl.pinterest.com/pin/459015387002790332/), and You Tube (https://www.youtube.com/user/RimmelLondonPL). The research carried out has shown that the brand under study uses content adapted to the users' expectations in their social media. This includes in particular educational content: articles, e-learning sessions, news feed information, comparative infographics and process-illustrating infographics; entertaining content: tests, quizzes, competitions, sponsored videos, and apps; inspiring content: user opinions and blogger posts; and convincing content: user reviews and product rankings. The brand is not oriented at a single way of distributing content, the activities are carried out through multiple channels. It runs its own websites which are regularly updated with new, valuable material added. Content is also published by bloggers, influencers, and Internet users. A person interested in beauty products has a good chance of coming across the distributed content. The content is presented in a clear manner and the ease of finding it is not surprising, considering the proper layout of the pages and appropriate positioning of the online resources. Valuable content published in the social media channels should be assessed highly, as well. The largest number of users follow the brand's Facebook page. With the increase in the popularity of Instagram and Pinterest, relevant activities are undertaken for the Rimmel brand. In the era of the growing role of video production, the brand also has a YouTube channel including numerous content-related videos, particularly tutorials. Moreover, it collaborates with bloggers and influencers – currently, mainly as part of their social campaign fighting against beauty cyberbullying, and on a regular basis, in the process of testing new products.
Newsletter	Interested Internet users can log in and receive information on Rimmel new offers and events sent to a provided e-mail address http://pl.rimmellondon.com/uzytkonik/newsletter

Table 1 presents in a synthetic way the examples of a variety of forms of content communication for the analysed brand. It can be observed that the activities are used on an extensive scale and in a methodical way. The conducted case study shows that content communication for the brand under study enables the provision of high value content to stakeholders, and consequently allows for a penetration of the brand into their life, presentation of solid information, education, stirring emotions, involvement of target audience on the conscious and subconscious level, creation of positive experience, and generation of mutually beneficial effects. Creation of the brand website and its profiles in popular social media produces numerous benefits, such as triggering of a low cost whisper marketing, building of a community which surrounds the brand and the products, an opportunity for communication in real time with users and other stakeholders; an opportunity to share opinions, films, photos, etc.; a possibility for demographic analysis of the community (gender, age, place of residence, etc.); building of strong relations with Internet users; an opportunity to create any kind of application, campaign or competition; to raise conscience on important company events; to encourage involvement in a variety of endeavours, such as designing of own varieties of branded products; an opportunity to exert influence over the brand image. The structure and content of the created sites for the given brand in the selected social media, as well as the forms of communication of high value content with the Internet users' involvement deserve to be commended. Another question relates to the opportunities for building of a proper image for the Rimmel brand. With respect to the problem of creating the proper image for the analysed brand, it is dedicated to young (both in terms of age and spirit), modern, brave, and active women (*O Rimmel,* 2019, www).

Table2: Creating desired brand image for the Rimmel brand by means of high value content (Source: own elaboration on the basis of conducted case study)

Enhanced features of the Rimmel brand image	Information on selected forms of content marketing communication
Unique, international but with British origins	brand information service, materials from photo sessions
User friendly (simple to use, universal, accessible),	communicating information which is interesting for the fans; thematic blogs; instruction videos; brand profiles in social media adapted to users' needs
Responsible, fair	many social responsibility projects
Creative, innovative (encouraging to experiment with make-up and freely express oneself)	integrating communication activities; constantly maintaining interest by means of novel projects and undertakings, new topics, new items on offer, as well as increasingly perfect modes of informing.
Inspiring, modern (trend setting)	proposing topics for discussion, keeping pace with cosmetics market development, trend setting, product innovations, an extensive offer and innovative forms of communication, including integrated inbound marketing activities

Information presented in Table 2 confirms the thesis that the content marketing communication activities play an important role in the process of creation of the appropriate image for the Rimmel brand. The owner of the Rimmel brand, Coty, declares that beauty should always bring joy and happiness, never sadness. According to them, the freedom to express oneself is key when it comes to beauty that is to be highlighted using the cosmetics of the brand under analysis. They emphasise that everyone, both women and men, boys and girls, have always used make-up to be able to express themselves. Rimmel wants to inspire people to experiment with make-up and show their most authentic selves this way. The role of the personified brand, going beyond the function of the products offered by it, is to broaden the definition of beauty and

inspire others to approach their image in an authentic manner, as it is their beauty that makes them unique. It also aims to fight against limited definitions of beauty, as well as shaming, judging, and criticising others based on their looks. Nowadays, such behaviour takes on the form of beauty cyberbullying. In order to investigate the scale of the problem and find out why the phenomenon occurs and how it impacts those affected, Coty commissioned a comprehensive study to be carried out in 10 different countries. Interviews with 11,000 young women aged 16 to 25 were held as part of the study. It turned out that in 2017 alone, as many as 115 million images were deleted from social media because of beauty cyberbullying. This is why the brand has partnered with non-governmental organisations: the Cybersmile Foundation on a global level, and in Poland, with the Empowering Children Foundation, which runs a Helpline for Children and Teenagers. The primary objective is to spread awareness and fight the phenomenon of beauty cyberbullying through the "I Will Not Be Deleted" social marketing campaign. The activities are additionally motivated by the information that one in four women have been victims of beauty cyberbullying. Moreover, it turned out that only 57% of all those bullied told anyone about what happened. Research shows that it is a huge problem and many people are unable to deal with it. It is never okay to hide behind the screen and criticise others for the way they look or express themselves. By highlighting this global issue, Rimmel wants to encourage people to fearlessly explore their own beauty and declares that it will keep fighting for everyone's right to express themselves online. Influencers, celebrities, and cyberbullying victims were involved in the campaign. According to globally successful model and actress Cara Delevingne, cyberbullying related to beauty choices has an impact on the victim on many levels: the personal, mental, and social levels alike. The celebrity believes that it is terrible that people make decisions concerning the way they look in anticipation or fear of being criticised. She emphasises that she identifies with the RIMMEL brand and looks forward to working on the campaign that raises this growing problem. Consistently enhancing its image as a socially responsible brand, Rimmel's owner believes that it is their duty to help create a safer and more positive online environment. A place where both women and men can fearlessly share their make-up and looks with others. With this in mind and with the good of people at heart, Rimmel strives to spread awareness of the phenomenon under discussion and create a safe space for self-expression and individual beauty.

5. CONCLUSION

In the light of the above considerations, it is justified to support the thesis that in the era of development of information technologies, an important role in creation of a proper brand image on the web is played by methodical publication of attractive and useful content as a reflection of content communication for brand. It is based on the strong belief that clients' trust and loyalty is best earned by providing them with relevant, reliable, high value information which contributes to creation of a unique brand image. Ensuring the provision of high quality information to the existing and potential clients motivates pro-consumer activities which are profitable from the company's perspective. Information is understood here as the intellectual capital having real value and translating into human life. Its dissemination in the marketing communication process triggers tangible results – attracting user's attention, newsletter subscription, completion of the contact form, participation in the contests, or eventually making the purchase and its repetition (loyalty). By means of high value content, the brand solves human problems and provides answers to important questions, and consequently begins to play an important role in the consumer's life. Quite often, education and change of habits and behaviour of the society is of crucial importance. Additionally, it is important to keep up with progress which for example indicates the greatest popularity of webcasts (i.e. production and transmission of presentations containing an abundance of videos, sound and text) and e-videos published on the product-related services.

In view of the conducted analysis it is justified to state that in the current market conditions, including the intensive Internet use, among other for the purpose of communication, the content marketing communication for the brand appears to be an effective tool for exerting influence upon the stakeholders; a tool which produces image-oriented results, generates value, and influences sales. The Rimmel brand promotes the joy of self-expression without limits. Thanks to dedicated content marketing communication in social media for the residents of 19 countries (9 European countries and 10 on other continents), the brand image is enhanced through the so-called "London Look", which encourages self-expression in an original and bold manner. The London Look should always be trendy, always authentic, close and accessible. Sometimes, it is rebellious, sometimes elegant, but the most important thing is to be yourself. The Rimmel brand primarily inspires people to play with make-up and colours. Thanks to its broad range of high-quality cosmetics, everyone can transform their looks as easily and quickly as they can run from one London Underground station to another, the way people move down the busy streets of London from Soho to Piccadilly Circus or from Portobello to Notting Hill. Since 1829, Rimmel has helped people express themselves without telling them what they should look like – providing them with beauty products intended to let them discover that. Content communication campaigns constitute a up-to-date and highly effective form of marketing activities for brands. They stir strong emotional reactions and influence stakeholders' behaviour. The performed analysis and research clearly indicate that high value content which is inspiring, stimulating, educative or entertaining distinguishes the brand and creates its unique image. The analysed content communication campaigns triggered immense interest of both the clients and the Internet users and industry experts. They can serve as a model to be followed by marketers who consider the use of an increasingly popular content. Communications related to the brand – due to the overt or subtle communication – influence the stakeholders in a multi-layer manner and strengthen the desired brand image. The campaigns are welcome and raise considerable interest on the Internet, which is reflected in numerous views or in comments. The high value content stays in the target audience memory and heart, is remembered for longer, is conducive for building of brand uniqueness, and enhances its authenticity. The communicated content clearly creates new stakeholders' experience related to the personified brand. Using content in communication for brand allows for avoiding pressure, giving freedom, providing entertainment, involving stakeholders in active dialogue, which facilitates their engagement in the digital era. Content stirs imagination, raises emotions, influences the conscience and subconscious of the audience, and supports relation building. Effective activities for personified brands which are interacted with by the stakeholders are determined by appropriate content marketing communication. Properly generated content – related to the brand, attracting the recipient's attention, in the form which is adapted to the expectations of the audience and the communication channels which they use, including the social media – seems to determine the process of brand image building and success in the digital era. The conducted research provide the basis for the conclusion that the content marketing communication plays an important role in the present day brand management– a phenomenon that clearly appears to be increasing.

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HOW DOES LABOR MIGRATION AFFECT THE ECONOMIES OF RECIPIENT COUNTRIES?

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ABSTRACT

Modern social reality can not be imagined without the migration of the population. Leading world development states, applying a selective approach and clearly defining priorities, seek to use international migration as a significant factor in the development of national human capital, the economy and the entire social sphere. A striking example is the United States, where science, high technology, medicine, etc., develop with the help of highly qualified immigrants, and low-skilled labor from abroad provides small and medium-sized businesses with cheap hands. Such countries as Canada, Australia, New Zealand, Israel, England, and Germany do not stand aside. However, migration cannot be viewed as a process with only positive effects. In fact, migration is a kind of social "catalyst". If the state has systemic problems in governance, anti-corruption activities, there is an increase in inter-ethnic tensions, crime, shadow economy, illegal employment, drug trafficking, etc. With the growth of labor migration, foreign labor resources began to have a greater influence on the socio-economic and political development of the host countries, including the development of the labor market, individual industries, and the smoothing of demographic imbalances. Unfortunately, the assessment of the impact of labor immigration on economic development is complicated by a number of factors: the widespread illegal employment, the shortcomings of the migration statistics system, and the dependence of the effect on the scale and duration of use of foreign labor. It should also be noted that the consequences of attracting highly skilled labor are different, in some cases drastically, from the immigration of low-skilled workers. Nevertheless, the analysis of the most significant local and foreign scientific research allowed us to form a typology of the positive and negative consequences of the use of foreign labor resources for the economies of the receiving migrant countries.

Keywords: *demographic imbalances, human capital, international migration, labor immigration, positive and negative consequences for the economy*

1. INTRODUCTION

The problem of migration, its impact on receiving and sending societies has recently become extremely relevant. And above all, this is due to the extraordinary increase in the influx of refugees into Europe, but not only. Cross-border migrations, and above all labor, have increased in all regions of the world, and in some regions of the Asian continent the growth rates of labor migration are particularly high. Obviously, we can state large-scale transformations both in the migration process in general and in labor migration in particular. Labor migration, regardless of the stage of development of migration processes, to one degree or another is their motivating and driving factor. It is hard to imagine that the majority of economic migrants, going to another country, rely only on state support in this country. Of course, dependent motives are present in modern migration mobility, but they are by no means dominant. Even in terms of assessing the scale of labor migration, 65% of the total number of cross-border migrants is more than an impressive share. But much more important is its place and role as a phenomenon that affects, in fact, all migration flows: family, educational, and humanitarian. What is labor migration in modern conditions and how does it affect the sustainable development of recipient countries of the labor force? These and other issues are covered in article.

2. POZITIVE AND NEGATIVE EFFECTS OF LABOR MIGRATION ON RECIPIENT COUNTRIES

Such factors as globalization of trade, development of transport and communication technologies, as well as demographic dynamics also act as incentives for migration flows. Migration can have both positive and negative effects on recipient countries. If migration flows are managed through well-thought-out policies, then international and internal migration can make a significant contribution to sustainable development, the UN Commission on Sustainable Development points out. With the help of migration policy, one can build social and political ties, help migrants improve knowledge and experience, provide sources of capital, investment and knowledge transfer. However, poor management of migration flows, insufficient opportunities for migrants to use previously acquired knowledge and skills, the presence of barriers to sending remittances to the country of origin lead to the fact that migration can potentially contribute to chronic labor market imbalances, tax imbalances and significant income inequality.Migration is a kind of social “catalyst”. If the state has systemic problems in governance, anti-corruption activities, there is an increase in inter-ethnic tensions, crime, shadow economy, illegal employment, drug trafficking, etc. With the growth of labor migration, foreign labor resources began to have a greater influence on the socio-economic and political development of the host countries, including the development of the labor market, individual industries, and the smoothing of demographic imbalances.

Table following on the next page

Table 1: Implications of the use of foreign labor resources for the country of entry of labor migrants (https://www.ictsd.org/sites/default/files/review/mosty_february_issue_-_2018.pdf)

Positive effects	**Negative consequences**
Consequences for the labor market	
Mitigate labor shortages.	Dumping in the labor market, leading to lower wages for local workers
Migrant employment in the household contributes to the employment of women.	Rising unemployment among the local population and the marginalization of less skilled workers.
Increasing employment in small business and entrepreneurship.	Criminalization of individual sectors of the labor market.
Providing employment in unskilled jobs.	
Employment of migrants in "non-prestigious" sectors of the economy contributes to the vertical mobility of local workers.	
Implications for human capital development	
Improving the quality of the workforce through the selection of young and skilled workers (in the segment of highly skilled labor).	Given the prevalence of low-skilled labor and the availability of substitute trends, the overall level of national human capital is reduced.
	Increased poverty (in case of declassification of a migrant due to job loss).
Implications for economic growth for the production of goods and services	
The emergence of a resource for regional shifts in the economy due to the possibilities for migrants to settle in certain regions.	Blocking the possibility of introducing labor-saving technologies.
Reducing labor costs and total costs associated with this.	Reduced efficiency and productivity due to the use of cheaper labor caused problems with the introduction of new equipment and technology.
Stimulation of additional employment, the formation of additional jobs and the development of infrastructure caused by the demand of foreign workers for goods and services.	The concentration of migrant workers is not in industries and regions experiencing the need for additional labor, but where you can count on quick earnings.
In the case of immigration of highly skilled labor, growth of innovative activity, increase in labor productivity is possible.	
Increasing the competitiveness of local goods and services by reducing costs.	
The growth of direct investment (including foreign), due to the availability of cheap labor.	
The development of the transport sector, both public and private transport.	
Implications for the financial sector and the formation state budget	
Increase in the collection of taxes from migrants' wages, receipts of obligatory payments (state fees, advance payments, etc.) and contributions to social funds.	Increased spending on social assistance for unemployed migrants.
Increase in payments for the use of housing and utilities by migrants.	The growth of government spending on migration policy.
Savings on education costs.	Additional impact of migrants on the social sphere and infrastructure.
Slowing inflation due to a higher propensity to save from foreign workers.	Capital losses associated with the transfer of part of wages by migrants abroad.
	Additional negative pressure on the national currency.
Implications for foreign economic activity	
Growth in the number of joint ventures with economic entities of the importing country of labor resources.	
Increase in commodity turnover between the exporting country and the laboring country.	

Let us dwell in more detail on the blocks presented in the table.

2.1. Implications for the development of the labor market and human capital

Labor immigration primarily affects the labor market of the host state. As already noted, this impact has both positive and negative consequences. First, the import of labor resources helps to alleviate the problem of labor shortages. Most of the developed countries have now entered a period of decline in the total number of working-age population caused by a decline in the birth rate. To solve this problem, by and large, only in two ways: a sharp increase in labor productivity and the promotion of labor immigration. The first option is the most favorable, but it requires time and technological development. The second option offers prompt satisfaction of the resulting deficit, especially for small and medium businesses. Secondly, the employment of migrant workers in the household contributes to the employment of women. The labor niches of carers, nannies, and housekeepers in developed countries turned into migrant ones in a short time. However, the ability to use cheap hired foreign labor for many women is a factor that stimulates their access to work. Third, employment in small business and entrepreneurship is increasing. This effect is observed as when attracting low-skilled labor, and highly skilled. As a rule, small business is highly dependent on the magnitude of costs, especially at the stage of creation and development. Foreign labor resources make it possible to obtain the necessary labor in case of their shortage, as well as to reduce their cost. This effect is also observed when using illegal migrants, especially in countries with high social guarantees in the labor market. Reducing costs is the cause of the spread of illegal employment in Russia, because brings incomparably greater benefits to employers, compared with legal employment. The study showed that the hiring of one illegal migrant, the economic effect is not less than 220 thousand rubles. savings per year. These calculations explain the main reason for the spread of illegal employment, especially in the small, as well as the so-called "migrant" or "diaspora" business. It should be noted that illegal migration leads to a number of negative socio-economic and political problems and can lead to various risks. In this regard, from the position of state administration of labor immigration, a deep assessment of all possible consequences for the formulation of a strategy regarding the scale of attracting cheap labor from abroad is necessary. Fourth, labor migration provides employment in unskilled jobs. Significant changes in the social structure of developed countries have had a major impact on the labor market. For a growing middle class, jobs with unskilled labor are not prestigious in both economic and socio-psychological aspects. In this regard, the influx of low-skilled migrants provides non-prestigious areas of the desired workers, although, as already noted, carries a number of social and political risks. Fifth, the employment of migrants in “non-prestigious” sectors of the economy contributes to the vertical mobility of local workers, encouraging them to improve their skills and find more prestigious and well-paid jobs. In a situation where local workers do not have the ability or desire to upgrade their skills and find employment in higher paying jobs, the probability of unemployment or their relocation from this region is very high. Labor migration has a number of negative consequences for the labor market of recipient countries. First of all it concerns unemployment and the level of wages. From the position of state management of migration processes, it is necessary to conduct continuous monitoring of the dynamics of unemployment and the level of remuneration in order to promptly respond to negative trends that may worsen with increasing migration flows. Another negative effect for the host state is the criminalization of certain sectors of the labor market. In addition to tax evasion, criminalization, as a rule, reduces the overall level of competition in the segment / industry, which leads to a slowdown in growth and technological development. We should not forget about the complex of possible negative socio-political consequences of this phenomenon. Labor migrants, entering a new society, become part of the aggregate national human capital of the host state.

Depending on the level of qualification and education, age and health, the incoming labor flow can both increase the level of development of national capital and reduce it. In the post-industrial economy based on the knowledge and technologies of the 5th and 6th ways, human capital becomes a strategic resource, critical for sustainable development, national competitiveness, growth of the population's well-being. The developed countries of the West, being attractive to labor migrants, are trying to improve the quality of the labor force by selecting young and skilled workers. Currently, there is global competition at the intra-industry, inter-industry, inter-regional and inter-country levels. For example, the United States uses not only labor, but also educational channels to saturate growth points with highly qualified personnel. The IT sphere is annually filled with the best specialists from India, China, South Korea, Russia, etc. With the prevalence of low-skilled labor, the overall level of national human capital is reduced. As a negative one, it is necessary to consider a situation where, along with the entry of low-skilled workers, there is a significant departure of highly qualified personnel from the country. With this trend of substitution, the reduction in the level of human capital is the most significant. It should also be noted that low wages in the segment of cheap labor can lead to an even greater decline in the human capital of migrants, due to the poverty of the latter. In such cases, the foreign worker has to save on food, medical care, advanced training, etc. The gradual erosion of the human capital of labor migrants leads not only to the deepening of poverty, but also to a decrease in their contribution to the economy, both through labor activity and through the consumption of goods and services.

2.2. Consequences for economic growth, for the production of goods and services

The increase in external labor immigration leads to an increase in the contribution of migrants to the gross domestic product of receiving countries. Migrants increase the total population of working age, come with a certain level of education, skills and competences, contribute to the development of the human capital of recipient countries. At the same time, in the case of the immigration of highly skilled labor, an increase in innovative activity is possible, which leads to an increase in labor productivity. For example, the migration of highly skilled labor in the United States contributes to increasing the amount of research and innovation, as well as increasing technological progress. Another positive effect of labor emigration is the ability to use its resource for regional shifts in the economy through the resettlement of migrants. The state, through indirect management based on the creation of growth points, needs to direct the flow to those regions where there is a need for labor. Unfortunately, this effect is very difficult to use in the case of low-skilled labor. An important positive effect of attracting foreign workers is to reduce the cost of labor and the total costs associated with its use. As already noted, this effect is observed when using legal as well as illegal migration. Reducing costs leads, firstly, to an increase in the profitability of the organization. Secondly, the growth of direct investments (including foreign ones) is stimulated, due to the availability of cheap labor. The experience of China shows that cheap labor, combined with transparent business conditions and guarantees of private property, ensures a steady flow of foreign money into production and, as a result, GDP growth. Thirdly, in the conditions of internal and external market competition, cheaper labor increases the competitiveness of an organization, facilitates the entry of goods and services into new markets. We should not forget about the stimulation of additional employment, the formation of additional jobs and the development of infrastructure caused by the demand of foreign workers for goods and services. In this context, the increase in the share of wages of migrants, which they use for domestic consumption, is a very positive effect. Also a favorable effect will be the accumulation of migrants' money in bank accounts, since The bank deposit tool allows you to invest these funds in the economy of the host state. The growing scale of labor immigration leads to an increase in the demand for transportation services, including the development of public and private transportation.

There is an additional impetus to the opening of new transport routes, an increase in the number of flights, and a fleet of vehicles. All this leads to an increase in the profitability of transport companies due to the "economies of scale". For recipient countries of labor migrants there are several negative consequences for economic growth and the development of production and services. First of all, it is necessary to note the negative impact on the introduction of labor-saving technologies. The reason for this is the fact that entrepreneurs and enterprises in conditions of the influx of a large amount of cheap labor lose incentives to develop and put into operation resource-saving equipment. This negative effect leads to the appearance of another: labor productivity is reduced due to problems caused by the use of cheaper labor with the introduction of new equipment. The lack of productivity growth leads to a "freezing" of wages. The growth of the welfare of both the migrant and the local worker stops. This affects the processes of consumption and accumulation of funds by these social groups. It should also be noted that the resulting effect of cheap labor can improve the competitiveness of the organization, but it can only take place in the short-term dynamics. In the future, the postponement of modernization will lead to a sharp lag behind competitors who will re-equip. The next important negative effect that is clearly seen in the example of Russia is the concentration of labor migrants not in industries and regions that need additional labor, but where you can count on quick and not always legal earnings. The overseas practice of managing migration flows shows that migration can and should be managed. Countries such as China, Israel, Sweden, Greece, etc., use the management of migration flows (not limited to purely labor) to stimulate regional development. For modern Russia, regional development is not only a matter of economics, but also an important factor in geopolitical security and political stability. The negative trends in population reproduction in Siberia and the Far East, complicated by the "western drift" in migration of the population, threaten to depopulate vast territories. Colossal internal Russian differentiation in the standard of living leads to migration, including highly skilled workers from the subjects of the Russian Federation, to the Moscow region. This undermines the economic, demographic, scientific, managerial potential of the Russian territories.

2.3. Consequences for the financial sphere and the state budget

Labor migrants have an impact on both the budget of the host state and the entire financial sector. Entering the labor market, a foreign worker becomes an object of taxation. Also, certain taxes and fees are usually paid by the employer who uses migrant labor. With an increase in the migration flow, the collection of taxes on migrants' wages, receipts of obligatory payments (state fees, advance payments, etc.) and contributions to social funds increase. At the same time, the higher the qualifications of migrants, the higher the cash receipts in the budget of the receiving state. Naturally, in this context it is necessary to talk only about the legal component. Factors affecting the financial effects of labor migration primarily depend on certain characteristics of the immigrants themselves, such as age and causes of migration. An OECD study showed that young unskilled labor migrants start paying taxes and fees more than the state spends on them, only after reaching the age of 40–45 years. Another positive consequence is the increase in payments for the use of housing and utilities by migrants. This effect depends on the magnitude of the flow and the development of the infrastructure and the rental housing market. As a rule, the increasing flow of migrant workers stimulates the construction of hostels, apartment buildings. At the same time, the compact placement of migrants, the formation of ethnic ghettos can reduce the cost of real estate in these areas, which will reduce the income to the treasury from real estate tax, if it is calculated from its actual cost. An important positive effect is the hidden savings of the state budget of the host state on the costs associated with obtaining education, medical care, and support through social programs. Another positive consequence is the slowdown in inflation due to a higher propensity to save from foreign

workers and remittances abroad. In fact, both savings and remittances from the country allow reducing the money supply in circulation, which should have a positive effect on the level of inflation. The situation with the exchange rate of the national currency in the host country of the migrant is a bit different. If he makes a money transfer to his homeland in the currency of the country of his residence, then the national currency exchange rate must be strengthened. The effect is the greater, the greater the money supply is transferred abroad. The opposite situation may occur if the migrant transfers money in the currency of third countries. For example, working in Russia and receiving wages in rubles, a foreign worker buys US dollars and makes a transfer. This increases the demand for foreign currency, which may put some pressure on the Russian ruble rate. Along with the positive effects of the use of foreign labor on the financial system of the host state, there are a number of costs. First, it is necessary to note the additional impact of migrants on the social sphere and infrastructure. This problem is particularly acute in the conditions of the crisis and the decline in demand for labor. During such a period, social assistance costs for unemployed migrants and return assistance are increased. As already noted, the relatively low cost of foreign labor is provided, including the almost complete lack of social guarantees for labor migrants from both the employer and the state. Such savings at the micro level can result in increased social spending at the macro level, which will have to be included in the expenditure side of the state budget. Secondly, an increase in immigration flows leads to an increase in government spending on migration policy. First of all, the costs are associated with the creation of infrastructure for the legalization and adaptation of migrants. Permissive and controlling functions of public authorities will require an increase in costs, following an increase in the number of foreign workers. Thirdly, although most experts believe that a migrant worker in value terms makes a greater contribution to the economy of a receiving state than sends remittances, in a pure form, “remittances” are a leakage of capital abroad. It is almost impossible to influence the total amount of remittances, since they are one of the main goals of labor migration, and additional taxation of this financial flow can only lead to the emergence of gray cash flow schemes.

2.4. Consequences for foreign economic activity

The existence of close migration links between the donor state and the recipient state cannot affect the external economic interaction of the two countries. First of all, we should talk about the increase in the volume of mutual trade and the increase in the number of joint trading enterprises. The impact of migration on bilateral trade is primarily due to three reasons. First, immigrants are well aware of traditions, laws, speak the language, are familiar with the business practices of both the donor country and the recipient country. Accordingly, their presence helps to bridge the information gap between sellers and buyers on both sides, thereby facilitating the realization of trading opportunities and the establishment of strong bonds based on trust. Secondly, immigrant networks can enforce contract execution through certain informal sanctions, which are used in the case of weak institutional rules and reduce trade costs. And thirdly, immigrants directly or indirectly promote the goods of their homeland, form demand and distribution for them.

3. REACTION OF NATIONAL IMMIGRATION SYSTEMS

National immigration regulation systems were formed as institutions for the prevention and resolution of conflicts arising from the influx of foreigners into host countries. Their activity was primarily determined by the country's needs in attracting foreigners, expanding or limiting admission in a specific period of its history. It is possible to conditionally distinguish at least three periods in the post-war history of immigration flows due to their imbalances and conflicts:

- settlement immigration;
- the period of "economic" migration;

- the post-crisis transition to selective methods of receiving the foreign labor.

Increased international competition, multiplied by technological shifts, changes in the structure of employment, the system of labor relations - all of these factors radically change the balance of supply and demand in the international labor market of migrants. The principles of selective selection of specific groups of specialists and low-skilled categories of workers and the need to counter the expansion of illegal migration, and, if possible, reduce the scope of its use, are prevailing. Until recently, national immigration systems did relatively well with their usual tasks of selecting and eliminating standard categories of foreigners. However, the transition to a new stage of socio-economic development reduces the capacity of labor markets, their interest in large contingents, even skilled labor. The influx of unclaimed labor migrants instead of the expected economic effect leads to an increase in social tension. This aggravates the internal problems of many national labor markets (unemployment, segmentation, redundancy of education, lack of demanded specialists, etc.). It is clear that cross-border migration cannot be stopped, it can only be limited and regulated. For this purpose, the methods of "rejecting" migration, redirecting migrant flows to other destinations or to other regions, seem to be the most effective. But this is quite a complicated and expensive event. It is becoming increasingly clear that the economic crisis, a sharp drop in economic growth rates, the uncertainty of the situation on labor markets and the growing imbalance of job creation with the need for them in new age cohorts are having an increasing influence on the transformation of immigration policies of host countries. In the EU, there is a struggle between opposing trends: the unification and standardization of migration policy with the diversification of national approaches in the field of migration regulation. This was particularly evident in the aggravation of contradictions in measures to overcome the migration crisis of 2015–2016. Obviously, the EU member states do not make much effort to encourage migration, and this applies even to those countries where there is a shortage of personnel. According to the Eurofund, active labor market policies make a rather modest contribution to facilitating geographical mobility within the EU. The reason lies in serious structural barriers - linguistic, cultural and in the difficulty of recognizing foreign qualifications. In addition, the share of unemployed among labor migrants from third countries in Europe is significantly higher than among the local working-age population. Moreover, this proportion is maintained even with a decrease in the level of registered unemployment.

4. CONSLUSION

Migration regulation is an extremely complex and delicate process due to the high degree of conflicting interests of the parties involved and a high degree of politicization (both in defining goals and objectives and methods for achieving them). This applies to both measures to reduce the influx of new immigrants (Great Britain), and the problems of integration (EU countries) and the presence of illegal migrants (US). The criteria for determining the real and future demand for foreign labor force are constantly changing; the importance of the filters used (quotas, scoring systems, lists of deficient professions, the level of remuneration, etc.) increases; the role of regulatory instruments (permit systems and control systems of employers and other sponsors, programs for irregular migrants) is increasing; the problem of the adaptation of foreigners and the inclusion of immigrants in host societies (integration agreements) is being updated; There is growing attention to the state of public opinion, the level of tension and conflict in relations between the local and visiting population, and shifts in electoral behavior. Reported processes affect both the countries of origin and potential migrants, increasing competition for decent jobs, obtaining relevant education and training. At the same time, a reduction in demand, given the unchanged economic situation in the countries of origin, is unlikely to have a significant effect on reducing the supply of foreign labor in the international labor market.

And this cannot but lead to the growth of irregular and illegal migration with all its consequences. It is precisely due to the peculiarities of historical and cultural experience, the presence of unequal economic and natural resources, but with more or less similar immigration policy objectives, various configurations of migration management tools are formed and effective in the proposed conditions and ready for transformation when new goals and objectives arise. In general, today, the regulation of migration flows is increasingly taking the form of restricting the flow of unwanted migrants through the introduction of additional filters: high requirements for professional qualifications, income levels, education and language skills, age restrictions, but also measures to attract the desired labor migrants. The considered positive and negative consequences of the impact of the import of labor on the economy of the receiving state mainly indicate the systematic nature of labor migration and its complexity for scientific analysis. Certain positive effects in the short term can give an impetus to negative trends in the long-term, which dictates the need for state management of migration processes, whose task will be to maximize positive effects and minimize costs. The peculiarities of such migration policy are, firstly, the complexity and timeliness of obtaining reliable statistical information. Secondly, the need to create a system of indicators for comprehensive monitoring of the impact of foreign labor on various aspects of the economic and social development of the state.

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THE (FOREST) WASTE AS SOURCE OF NEW COMPANIES AND JOB CREATION

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ABSTRACT

According to the European Environment Agency (EEA), global demand for energy and natural resources is expected to increase, and climate change impacts will intensify. The only viable option is to move to a low-carbon, clean, safe, affordable and renewable energy circular economy. Circular economy is thus among the main contemporary political objectives in Europe, and sustainability and reflection on the life cycle are increasingly the center of attention. According to the Circular Economy (EC) model, with regard to energy production, sustainable development must be guided by principles of reduction, reuse and recycling of materials and waste, with the combustion process at as the penultimate option, followed by landfill. The current paradigm of extraction, production and use of natural resources do not converge with a future vision. The planet has a finite capacity of resources that it is able to provide, just as is finite its capacity to deal with the consequences of the use of these resources. Solutions that seek synergies between resources and waste, the use of resources and the consequences that result with a minimal environmental impact, have been sought. Biomass recovery technologies are pointed as a solution that aims to reversing part of the problem. This document approaches the problems associated with resource extraction, elucidating how waste (in this case, forest biomass) can be converted into energy and the resulting by-products can be returned to nature with a positive impact, closing the cycle. These new biomass recovery technology can enable the creation of new companies and job creation.

Keywords: *biomass, closed product cycle, production of energy*

1. INTRODUCTION

Human development depends on natural resources, largely due to energy needs. According to the European Environment Agency, it is expected that global demand for energy and natural resources will increase and the impacts of climate change will intensify. With energy production accounting for two-thirds of total greenhouse gas (GHG) emissions and 80% of CO_2 emissions, promoting sustainable development and combating climate change become integral aspects of planning, analysis and formulation of energy policies (International Energy Agency, n.d.). Moving towards sustainable development should promote resource use efficiency and the integration of waste into natural cycles for the benefit of nature and the economy. In 2010, about 65 billion tons of raw materials entered the economic system and are expected to reach

82 billion tons by 2020. This abusive consumption exposes companies and countries to risks related to the volatility of resources prices and supply disruptions ("Economia Circular - O que é a Economia Circular?," n.d.). However, not only the drawing out of resources raises concern, the production of waste also has a strong negative impact. The Earth is not only limited in the supply of resources, but also in the absorptive capacity of the generated waste, much due to the synthesis of substances that are not generated in nature. Thus, the global trend of waste/biomass valorization for energy production has gained prominence, with the concept of "Waste for Energy" (WTE), widely promoted as a form of sustainable development (Ferreira, Monteiro, Brito, & Vilarinho, 2017). In Portugal, 4.891 thousand tons of solid urban waste (RSU) were produced in 2016, 3% more than in 2015. This trend of growth over the years does not converge with that which is the Community and national strategy for waste adding that the recovery of waste remains stagnant - that year, 29% of MSW collected were deposited in landfills, 22% were incinerated in waste energy recovery centers, 2% were sent for organic recovery and 11 % were recycled (APA, 2016). This situation becomes more sensitive in view of the fact that this type of waste represents only 10% of all waste generated. In addition, in 2017, devastating forest fires swept the northern and central regions of Portugal with a great loss of life, burning a total area of 442.418 hectares. The dimension of these events has made the Portuguese internal administration unprepared, emphasizing the need to implement of preventive measures of territory management and planning (Silva & Eus, 2019). Therefore, it is essential to reinforce the use of biomass as a source of energy since cohesion and valorization of the national territory undergo by the use of this endogenous, abundant and accessible resource, which uses efficient and mature technologies. Which has advantages over other sources of renewable energy because it is subject to storage and transportation is less dependent on location and climate, is the only non-intermittent renewable source in energy production, as well as valuing waste that, on the other hand would become polluted. The processes of thermochemical conversion of biomass, as in the case of combustion, have accompanied humanity throughout its development. However, their exploitation remains undervalued in the face of the benefits that could result. The advantages of using these processes for the production of energy go through the valorization of endogenous energy resources, which in turn would lead to a decrease in imports of fossil fuels and consequent improvement the stability of trade balance. Job creation is inherent in investing in these technologies, and because it is a renewable source of energy, greenhouse gas emissions will be reduced. In addition, as technologies promoting waste recovery, the environmental and economic impacts associated with waste management would be reduced, which would lead the country to meet the European targets for waste, GHG emissions and the share renewable energy production. The European Commission has approved under the EU rules on State aid a Portuguese scheme to support biomass energy installations located in close proximity to forest areas considered to be 'critical' in terms of fire risk. Thus, this article presents a study of the resulting energy potential of enhancement of forest biomass of northern Portugal, more specifically in PROF Douro region. Where it is analyzed the economic and environmental viability of the implementation of a biomass power plant that uses the technology of combustion for electricity production.

2. LITERATURE REVIEW

2.1. Circular Economy

According to the European Commission (European Commission, 2014), the implementation of measures to increase the efficient use of resources can lead to substantial gains:

1. cost savings, for European industry in the order of 630 billion €/year;
2. the boost in economic growth, with a 3,9% increase in GDP, creating new markets and adding value to materials;

3. and a reduction of 17 to 24% in natural resource extraction by 2030. Re-injection of resources into the production process and reduction of waste and dependence on uncertain sources of supply are a direct way to improve resilience and competitiveness, contributing to more sustainable growth.

Thus, the transition to a circular economic model will bring Europe up to the challenges of resource pressure and increased supply insecurity (European Commission, 2014). It should also be noted that some measures for the transition to the EC require investment to be feasible. Public and development banks should provide resources that signal priorities to markets, such as innovations and new forms of business for CE, so that the economic mechanisms support the better allocation of resources, overcoming obstacles and market failures, giving scale initiatives, raising the level of discussions to recognize good practices and encouraging entrepreneurship in new business (Abu-Ghunmi, Abu-Ghunmi, Kayal, & Bino, 2016). There should be measures to facilitate investment in circular solutions, such as the dissemination of product information to private investors via non-financial reporting, especially in long-term financing; create new risk-reducing financial instruments such as the proposal for a specific fund in the European Investment Bank or the use of public-private partnerships to enable JI projects; eliminate negative subsidies and exchange part of the tax on labor (such as income tax) for a tax on pollution and use of resources (there is a proposal under discussion on European environmental tax reform in this regard); restrict current waste funding by European funds to those preferential solutions (selective collection, recycling, etc.), and no longer subsidize landfills; and provide specific credit lines to develop new markets for secondary materials with higher quality and reliability (Abu-Ghunmi et al., 2016; Faivre, Fritz, Freitas, de Boissezon, & Vandewoestijne, 2017; Wolfram & Frantzeskaki, 2016).

2.2. Forest resource

There is a high energy potential of forest biomass in Portugal, and it is imperative to instigate its energy recovery to reduce the amount of fuel associated with fires, external dependence on fossil fuels, greenhouse gas emissions and promote job creation. In 2017, biomass met 5,40% of the needs of the Portuguese energy sector, with a total output of 2,8 TWh. Although the contribution of this source has been increasing, it is far away from other sources of renewable energy such as wind and hydro-electric energy, with contributions of 23,10% and 14,20%, respectively (APREN, 2017). Being even more below that which is the national potential. According to the 5th National Forest Inventory (ICNF – Instituto da Conservação da Natureza e das Florestas, 2010), in the northern region of Portugal, forest assume the largest land occupation with 1 358 079 hectares, or 64% of this territory. The most representative species are pine tree (45%), followed by eucalyptus (22%), oak (16%), chestnut (5%) and cork oak (2%). From the Northern region of Portugal, the Regional Planning Plans (PROF) of Alto Minho, Baixo Minho, Tâmega, Porto Metropolitan Area and Entre Douro and Vouga, Barroso and Padrela, Northeast and Douro (Figure 1a). These are defined by the Basic Law of National Forestry Policy (Law No. 33/96), and are a key element in the Portuguese Forestry Planning System, developing the guidelines recommended at the level of national forest planning and legislation and translating them, on action programs, or on specific forestry and land use standards (UTAD, 2006). The Douro PROF area is located in the south of the region of Trás-os-Montes and Alto Douro and north of Beira Alta, partially covering four districts: Bragança, Vila Real, Viseu and Guarda. Administratively, the 410.897 hectares considered are distributed in 19 municipalities, encompassing a total of 301 parishes (Figure 1b). The soil occupation is distributed with 39,4% of agricultural space, 30,6% correspond to non-wooded forest areas and 28,2% correspond to wooded forest areas (UTAD, 2006).

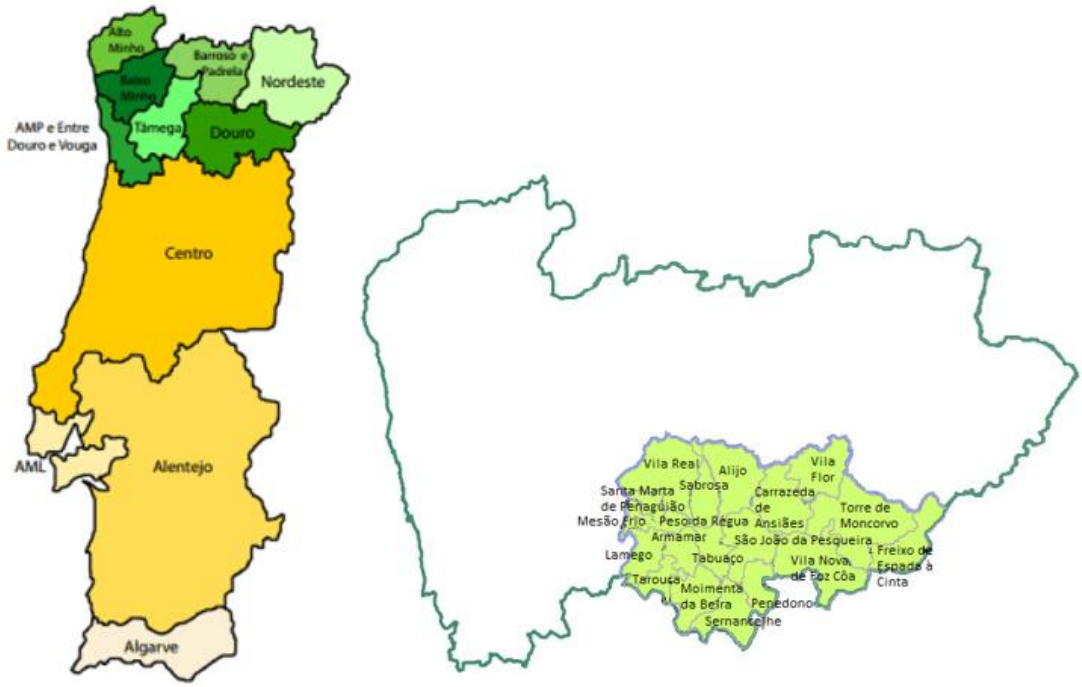


Figure 1: Scheme of the PROF regions of the North of Portugal and counties that make up the PROF Douro

Regarding the feasibility of the energy utilization of forest biomass, the existing quantity and the annual average additions, are good indicators of the potential of implementation of plants for their valorization. The PROF region of the Douro presents as soil occupancy characteristics: 39,4% of agricultural space, 30,6% of non-wooded forest spaces and 28,2% of wooded forest areas (Figure 2). The most representative species are pine (71,5%) and oak (10,1%) (UTAD, 2006). With regard to existing biomass and annual average increases (AAI) of biomass, there are 52,9 ton/ha of biomass in this region and the average annual increases are 3,4 tons/ha (ICNF – Instituto da Conservação da Natureza e das Florestas, 2010). That is, 128.287 tons of forest biomass available every year.

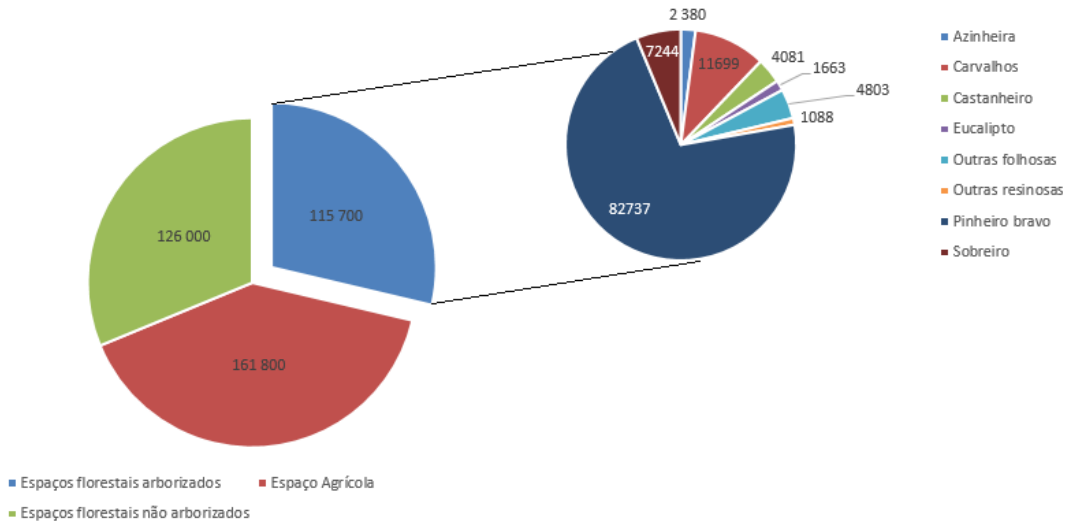


Figure 2: Characteristics of soil occupation of the PROF region

3. BIOMASS AND CONVERSION PROCESSES

Biomass can be converted into energy and/or biofuels by biochemical conversion processes or by thermochemical conversion processes. The first involves catalysts and biological organisms for the production of energy; already the second involves heat and chemical catalysts. Biochemical conversion is less expensive and more environmentally friendly than thermochemical conversion, however, given its low yield and high process time the thermochemical conversion is more widespread (Tripathi, Sahu, & Ganesan, 2016). The products resulting from the conversion of the biomass are directly related to the applied technology, so your choice must be careful in order to obtain the maximum quantity of product with the desired characteristics, at the lowest cost, with the maximum process efficiency and with the less environmental impact. Examples of thermochemical conversion of biomass into energy are combustion, pyrolysis and gasification. In this article, the combustion process will be the subject of analysis. Combustion can be defined as the complete oxidation of the fuel, involving a number of highly complex physical and chemical aspects. In this process, the chemical energy contained in the biomass is converted into heat, mechanical energy or electricity through devices such as ovens, boilers, steam turbines, etc. Combustion technologies play an important role in the production of energy from biomass, which is the main technological route for bioenergy, responsible for more than 90% of the global contribution of bioenergy. However, for a greater implementation of biomass combustion, the technology should be optimized to meet raw material costs, increase fuel flexibility, and have lower emissions and greater efficiency (Jaap, 2008). In Portugal, the combustion of biomass in small domestic applications such as heating and food preparation is frequent, however it is not well documented (Ferreira et al., 2017).

4. METHODOLOGY

This study analyzes the economic and environmental viability of the implementation of a forest biomass energy recovery power plant using the combustion technology in a specific region of the North, the PROF Douro. The production of electricity is examined, based on technical-economic data presented in the literature, as shown in Figure 3.

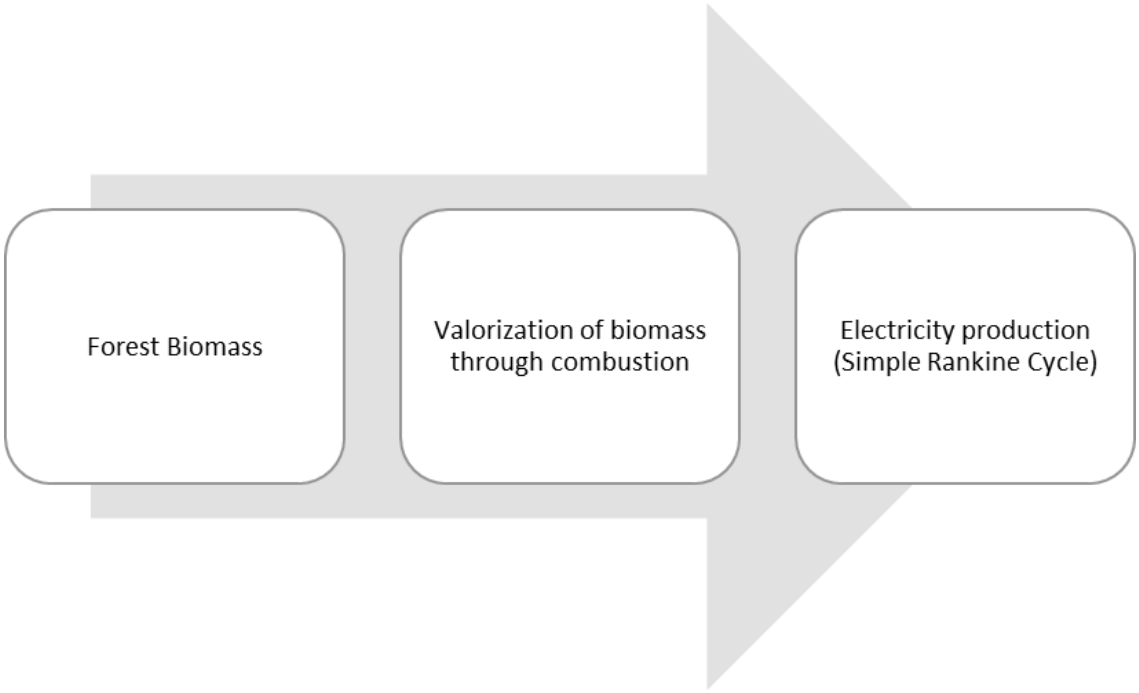


Figure 3: Scheme of the study scenario

4.1. Considerations

For reasons of sustainability and inherent difficulties to the transport and collection of biomass, it was considered that the forest resource available for conversion is 50% of its totality (CBE, 2004), that is, 64.144 tons/year. Considering the LCV of forest biomass equal to 15.6 GJ/ton (reference value for calorific value presented in Order No. 17313/2008 (Ministério da Economia e da Inovação, 2008)), it is inferred that there is an energy potential of 277.956 MWh/year. It was also considered a constant availability of biomass throughout the year, during the period of operation of the plant. For this type of thermoelectric power plant, it was considered that the electricity production is based on the operation of a simple Rankine cycle with a thermal efficiency of 35%. It was also considered an efficiency of 85% for the boiler (Borges, 2009). Table 1 summarizes the input data applied in the calculations.

Table 1: Technical-economic characteristics of the scenarios under analysis

Dados técnico-económicos dos cenários analisados		**Reference**
Location	PROF do Douro	
Plant availability	8.000 hours/year	(Borges, 2009)
Biomass potential	64.144 ton/year	(ICNF – Instituto da Conservação da Natureza e das Florestas, 2010)
Potential of biomass energy	277.956 MW/year	
Biomass cost	41-76 €/ton	(Enersilva, 2011)
Revenues for electricity selling	107 €/MWh	(Ministério da Economia e do Emprego, 2013)
η_{th}	85%	(Borges, 2009)
η_{el}	35%	(Borges, 2009)
Power Plant capacity	10 MW	
Reference cost of the plant (€/MWel)	3.000.000	(Relvas et al., 2015)
Production costs (€/MWh)	13.33	(Relvas et al., 2015)
Operational costs (€/h)	133	(Relvas et al., 2015)
Project lifetime	20 years	
O&M costs	5% of the total investment	
Discount Rate	10%	

5. ECONOMIC VIABILITY

In order to analyze the economic viability of the power plant, the economic indicators PBP (Payback Period), NPV (Net Present Value) and IRR (Internal Rate of Return) were analyzed to examine the profitability of this type of projects. Payback Period gives an indication of the number of years that the user recovers the invested capital. However, it does not take into account the updating of amounts and considers the existence of a gross benefit (revenues minus expenses), constant. This indicator can be translated by the expression:

$$Payback\ Period = \frac{Investment\ costs}{Revenues} \quad (1)$$

The NPV indicates the surplus generated after the investment. The user values the capital at a rate of a% and at the end of the project lifetime (n) recovers the invested capital (I) and generates surplus (when the value of the NPV is greater than zero), or only pays the invested (when the NPV value is equal to zero) (Borges & Moreira, 2009).

$$NPV = -I + (R - C)\left[\frac{(1+a)^n - 1}{a \times (1+a)^n}\right] \quad (2)$$

where I refers to the invested capital (10^3€), R revenue (10^3€), C to operating costs or charges (10^3€), a represents the discount rate (0 <a <1) and n is the number of years of project life.

The IRR corresponds to the project update rate for which the NPV value is equal to zero. This indicator allows determining the rate that the investor obtains, on average, in each year, on the capital that remains invested in the project, while the initial investment is recovered progressively.

$$-I + (R - C)\left[\frac{(1+a)^n - 1}{a \times (1+a)^n}\right] = 0 \qquad (3)$$

The sale of electricity produced to the grid was taken as revenue, taking as reference the value of 107 €/MWh (value calculated according to Decree-Law no. 35/2013 (Ministério da Economia e do Emprego, 2013). The investment refers to the cost of the equipment and its installation, whose values are presented in Table 1. Annual operating and maintenance costs were taken as 5% of the total investment value. Costs of biomass include costs of production, collection and transport and range from 41-76 €/ton, so we consider the average value of 58,5 €/ton. The life time of the equipment was considered to be 20 years. Finally, the value of 10% for the discount rate was considered.

6. ENVIRONMENTAL VIABILITY

In order to determine the savings generated by the plant's implementation of biomass in terms of CO_2e emissions, the potential of electric power generation by the thermoelectric plant was compared to the same amount of energy produced if coal, oil or natural gas were used. In Order nº 17313/2008 (Ministério da Economia e da Inovação, 2008), the lower calorific value (LCV) and emission factors (FE) are established for the analyzed fuels. Table 2 shows the values used in the calculations.

Table 2: Calorific values and emission factors of the analyzed fuels

Fuel	LCV (GJ/ton)	FE ($kgCO_2e/GJ$)
Wood biomass	13,8-15,6	0,0
Bituminous coal	25,8	94,5
Crude oil	42,3	73,3
Natural Gas	45,1	64,1

7. RESULTS

7.1. Economic viability

Table 3 presents the results obtained in the study of economic viability of the thermoelectric power plant, according to the considerations taken.

Table 2: Results obtained in the economic analysis

Investment (€)	Total operation costs (€/year)	Revenues (€/year)	Payback (years)	NPV (€)	IRR (%)
30.000.000	2.565.213	8.560.000	5	21.036.999	17

According to the results, the implementation of a 10 MW biomass thermoelectric power plant requires an investment of 30.000.000 €, with a return on capital invested in just over 5 years. By valuing the capital at a rate of 10%, after the 20-year life of the project. In addition to recovering the initial investment, is generated a surplus of around € 21.036.999. The capital investment is valued at a rate of 17%, that is, the rate of return of the investment is higher than

the discount rate. According to the World Bank Group (International Finance Corpotation, 2017), the project is feasible: the payback period is less than 10 years, the NPV is positive and the internal rate of return is higher than the discount rate.

7.2. Environmental viability

The implementation of biomass power plants leads to a number of environmental and social benefits such as the reduction of forest fires, increasing the share of renewable energy production and promoting rural development and job creation. In quantitative terms, biomass combustion plant has a potential for electricity production of 80.000 MWh/year, equivalent to 18.461 tons of CO_2e avoided if the fuel used to produce this energy was natural gas.

8. CONCLUSIONS

The current pattern of production and consumption raises questions about the availability of limited resources and the volatility of commodity prices, undermining their supply. The growing awareness that the economy depends on the ecosphere and that the Earth is finite and so economic growth has limits, has motivated the development of more sustainable solutions. Thus, biomass energy valorization has increasingly been considered as an integrated strategy of bioeconomy and sustainable circularity, which preserves the biological balance of ecosystems, which does not compete with the food chain, nor does it potentiate the extraction of raw materials, understanding waste as resources. In addition, the by-products generated can be returned to nature, with environmental benefits, closing the cycle. In the present work, the potential of electric energy production of the forest biomass of the Douro region using the combustion process was analyzed. The production scenario was considered and the economic and environmental feasibility study was carried out. From the economic analysis the project was viable with a surplus value generated of 21.036.999 €, an internal rate of return of 17% and a return period of 5 years. From this, it is concluded that this kind of project has economic significance for the region. Indeed, economic data show that the creation of businesses for the production of electricity from forest biomass could be a reality, thus enabling the region's economic development and job creation. The economic gain is not, however, restricted to the creation of wealth based on the creation of electric power companies, but also on the creation of satellite companies, from the by-products originated from the electricity production industry. Also with regard to the reduction of greenhouse gas emissions, the implementation of this type of plant has a potential of 18.461 tons of CO_2e avoided if the fuel used for the production of electricity was natural gas. Although this evaluation is generic, since several considerations have been taken, which may differ from reality, it is an indication of the potential of this type of use. Biomass is thus a renewable energy source with a great potential for the production of electric energy and can become a strategic sector in Portugal or in any other country with forest resources at least identical and whose energy market is based largely on imported fuels.

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THE IMPORTANCE OF RESOURCES IN THE INTERNATIONALIZATION STRATEGIES OF CROATIAN FIRMS

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ABSTRACT

Resources and capabilities are considered to be key sources of competitive advantage of a company, but only if they are not possessed by the competition. In order for competitive advantage to be sustainable, it is important that firms invest in continual improvement, i.e. in the education of their staff, modern technology and innovations. Modern business takes place in constantly unpredictable and uncertain conditions, and it is therefore necessary that a company has people ready to adjust to new business climate, and also new technologies to keep up with the competition. New business conditions have made the boundaries between people and information thinner, so many firms opt for entering international markets. Entering the international market represents a huge economic challenge because it requires certain skills and knowledge from the management and the employees. In the forming of export economic strategies, the country decides on the way of realizing its strategic goals with the highest success. The Republic of Croatia has faced some highly demanding political and economic processes and events in the past few years. Fast development of modern technologies and globalization has created conditions for internationalization of businesses in Croatia. Economic success of a country depends on the compatibility of development goals of the country with the goals of the economic strategies. When choosing the strategy for entering international market, companies have to conduct different researches related to the demand for their product or services, and the research on the culture, language and customs of the country where they wish to operate. The empirical research was conducted with the experts in charge with the activities related to the internationalization of companies. Based on the sample of five firms, the conclusion can be made on what strategies Croatian firms choose for entering the international market, and whether they come across any obstacles along the way, and if they do, what the most common obstacles are.

Keywords: *competitive advantage, internationalization of firms, strategies for entering the international market, resource theory*

1. INTRODUCTION

Competitive advantage can be established only in relation to the competitors, based on which we can differentiate successful from unsuccessful firms. It can be said that a firm has competitive advantage when it is able to create more economic value than its competitors (Barney, 2008). The basis of competitive advantage are invisible resources, and this is because invisible resources are specific to the firm that owns them, and because those resources are difficult to imitate (Wong, Kair, 2010). Fast development of modern technology and globalization has contributed to the internationalization of business activities. Firms that have access to new knowledge, information and technologies possess advantage in relation to other firms. Modern business implies dynamic environment, i.e. constant uncertainty and unpredictability. Therefore, internationalization is a crucial activity, because if a firm relies only on the domestic market, it might not survive (Törnroos, Halinen, Medlin, 2017). Chang, Wilkinson, Mellaahi (2007) state that globalization and internationalization have provided

multi-national firms presence on the growing markets via lower entrance barriers and lesser regulations, but also via trade liberalization. It is important to point out that, with the business internationalization, firms actually protect the activities from the international competitors and also enable expansion into international markets (Rialp, Urbano, Vaillant, 2005). Resources that are valuable and cannot be imitated can provide the firm with competitive advantage, along with the knowledge and skills the competitors cannot easily acquire. The role of small and medium-size firms on the growing markets is evident in big profit from the export. Also, those firms are also prone to undertake risky activities to show their knowledge and technologies make them capable of doing business on the international markets (Javalgi, Todd, 2011). Autio and Acs (2010) point out that long-term competitiveness is connected with the knowledge and tendency for innovations, and faster internationalization than the competitors. Tolstoy and Agndal (2010) think that technological innovations can positively influence the export, and so technological abilities can contribute to the realization of competitive advantage. Besides knowledge and innovations, technology is emphasised as the way of creating competitive advantage. Owning modern technology enables firms to expand on international markets and it also brings competitive advantage. Crick and Jones (2000) have concluded that internationalization is influenced by technological intensity of a firm through specific characteristics of the products and the environment where the firm operates.

2. BUSINESS INTERNATIONALIZATION

Internationalization has become inevitable, ever since it started to evolve in the 1970s, when strong market liberalization was set in motion and when technology reached the level which enabled firms to expand their businesses outside the borders of their country. It is important to note that through internationalization, a firm can realize lower production costs and economies of scope (Jenkins, 2013). Every company that wishes to develop has to think globally, i.e. the main motive of the internationalization is the creation of new value for the company (Daniels, Radebaugh, Sullivan, 2009). There are many reasons why firms opt for internationalization, for example, the wish to access new buyers is one of them, along with the wish to reduce the costs. Another motive of internationalization is the advantage a firm can create if operating on a new market before its competitors (Thompson, Strickland, Gamble, 2006). A factor influencing the decision on internationalization is the risk dispersion. With the dispersion of business, firms can protect themselves from negative changes in the prices of raw materials in one country, in the way that they transfer their production where it is most cost-effective. Dispersion relates also to the customer dispersion, i.e. with the internationalization, a firm stops being dependant on domestic consumers only (Koslow, Scarlett, 1999). Korsakiene and Baranauskiene (2011) state that success of the internationalization depends on motivational factors and the factors that disrupt the process. The motives that lead small and medium-size companies towards internationalization can depend on different sectors, the size of the company, their former experience in international operations etc. Likewise, they think that firms are motivated by different factors depending on the level of internationalization. Firms that have high level of internationalization mostly combine both motives. If a company wants a good internationalization strategy, its management has to: evaluate the export potential, consult with the key employees in the firm regarding the export potential, decide what market is acceptable and, in the end, form and implement the strategy (Daniels, Radebaugh, Sullivan, 2009). It can be concluded that first, it is necessary to perform evaluation of whether there is a market for the product or a service that the firm offers, and then make other evaluations. If there is not enough demand on the domestic market, or if the firm wants to reach high levels of the growth, then entering international markets is inevitable. In order to survive on the international market, a firm has to possess resources for maintaining competitive advantage. While making the decision on the internationalization, it is important to know what a “multidimensionality of

distance" is, and it relates to the level of knowledge about the new market which depends on the proximity in relation to the country of domicile (Aharoni, Brock, 2010). Political systems that have stable and predictable rules increase the possibility of direct foreign investments, i.e. the risk of internationalization (Gelbuda, Meyer, Delios, 2008). The risks can be divided into: intercultural, currency, commercial risks and the risks of the country. Intercultural risk relates to different language barriers and the differences in the life style, culture and the customs. Depending on the culture, customers have different wishes and needs, and different way of conducting business. Currency risk appears due to international transactions in different currencies. Taking into account the connections among the international economies, it can be concluded that inflation in one country can influence the currencies. Commercial risk arises if the firm brings poor decisions regarding the prices or the time of entering a market. The country risk, also known as the political risk, relates to poor effects or unprofitable business in case of unfavourable events in political and economic environment of the country (Cavusgil, Knight, Riesenberger, 2014). Many firms think that outer and inner obstacles for internationalization are too great. Therefore, some firms prepare well in order to avoid potential barriers, and some think demand on the domestic market is sufficient and do not consider expanding their business. The process of internationalization can be expensive and long-lasting, so it is important that firms are flexible, but also innovative to prepare as good as possible for the demands of the international market (Roy, Sekhar, Vyas, 2016). The existence of the obstacles makes entering the market for new firms difficult, while for the existing firms, it enables creation of economic profit. Pihno and Martins (2010) think that firms can, but do not have to, encounter certain obstacles, depending on the industry, but it is crucial to alleviate the influence of the potential barriers. While making the decision on the internationalization, a firm definitely has to consider the possible barriers and how to avoid them or minimize their impact. Škrtić and Mikić (2009) state that most common obstacles of internalization on an internal level: high internationalization costs, the price of the product or the service, employees who are insufficiently educated on the business activities on the international market and the quality or certain specifications of the product or the service. According to Leonido (2004), it is necessary to reduce the obstacles, especially in the initial phase of the development of business on the foreign markets, because preventive removal of the obstacles can influence international business.

3. RESOURCES AND CAPABILITIES OF INTERNATIONAL FIRMS

In the 1990s, the so-called Resource-Based View of the Firm – RBV was developed that explains the relations between the resources a firm possesses and the competitive advantage. In order for a firm to gain value, the resources have to be rare, difficult to imitate and hard to replace (Husnah, Aisjah, Djumahir, 2013). Penrose (1959) defined resources as physical means that a firm buys, rents or produces for its own needs, and she put the emphasis on the unique character of the firm that creates heterogeneity and not homogeneity of the production parts that are potentially put at disposal from the resources. The core of the resource theory is based on the fact that a firm can achieve competitive advantage if it owns unique and specific resources, skills and knowledge, and the technology their competitors cannot have or cannot imitate (Tipurić, 2014). In order for a firm to be able to defend itself from its competitors, it has to use the resources it possesses efficiently, but also develop new ones.



Figure 1: From resources to rents (Enders, 2012, p 13)

There are different divisions of resources: Grant (2013) divides them into tangible and intangible; Barney (1991) categorized them into physical (machines, buildings), human (knowledge, experience of the employees, their dedication and loyalty), organizational (organizational culture, informal processes) and financial (debts, capital); Hafeez, Zhang and Malek (2002) suggest the division into physical, intellectual and cultural asset; Dess, Lumpin and Eisner (2008) divide resources into 1) tangible – financial, physical and technological, 2) intangible – human, innovations and creativity, reputation and 3) organizational capabilities. According to Tipurić (1999), resources (tangible and intangible) are at the bottom of the pyramid, while capabilities are less visible and tangible than resources and they can be divided into simple and dynamic (they are used for modification of the simple capabilities). On the top, there are the key competences that have the most strategic significance, i.e. that, in relation to the resources and the capabilities, create most value. Key competences signify a sort of knowledge acquired with organizational learning inside a company, and especially about how to coordinate different production knowledge, harmonize the basic technologies, organize the work and deliver the values to the market. They are the capabilities of consolidation of the production technologies and skills into the competences that enable certain business areas quick adjustment to the changeable environment (Hamel, Prahalad, 1990).

3.1. The VRIN and VRIO framework in forming the strategy of an international firm

In 1991, for the first time, Jay B. Barney presented a more concrete and comprehensive framework for identifying necessary characteristics of the resources with the aim of creating competitive advantage, better known as the VRIO model. The VRIN framework is based on the resource theory that implies that constant competitive advantage will exist only if the competitors are not able to copy, i.e. imitate the advantages of the firm (Barney, 1991). Researches have revealed that a firm with more valuable and rare resources has a constant level of competitive advantage and better performances, and the reason for this is the interconnectedness which exists between the rare and valuable resources, which can directly of indirectly influence competitive advantage (Talaja, 2012). The value and rarity are considered understandable, while the uniqueness and non-substitutability require a more detailed explanation. Regarding the uniqueness, the emphasis is put on those factors which can prevent competitors to imitate accumulated resources of the leaders (Barney, 1991). Grant (1991) stressed four characteristics important as the guidelines for competitive advantage: durability, lack of transparency, transferability and limited possibility of replicating. Durability represents the period in which a resource becomes outdated in relation to the resources of other competitors. Due to the advancements in technology, it is emphasised that the resources that are intangible are a better, i.e. a more long-lasting source of competitive advantage. On the other hand, it can be noticed that physical resources become outdated more quickly. If transparency does not exit, other firms imitate competitive advantages with more difficulty. Barney (2002) suggested replacing the VRIN framework with the VRIO framework. Barney and Clark (2007) state that competitive advantage can be realized through resources in the way that: the resources already owned by the firm are protected, there is continual work on improving and advancing the resources and efforts are made to build new resources. The goal of international companies is to focus on the development of unique resources and basic competencies that have the VRIN or the VRIO characteristics, in order to perform as better as possible. In this way, a firm can accentuate competitive advantage in the area where it dominates and eliminate competitive disadvantages in some unprofitable areas (Buntak, Drožđek, Kovačić, 2013).

3.2. Sources of competitive advantage on the international market

When a firm is able to achieve a better position in industry than the competition, it can be said that it has created competitive advantage. If the changes are negated, regarding the uncertainty of the environment, competitive inferiority can occur, so it is necessary to expand the operations to the international market, i.e. introduce internationalization activities if the firm wants to have competitive advantage (Tošović-Stevanović, 2009). In order for a firm to differentiate itself from others on the international market, it is important to define the strategy that will enable competitive advantage. Also, it is crucial that the strategy supports innovations, changes and constant improvements. Technology and its advancement play an important role in creating and sustaining competitive advantage. It relates to all the processes based on which a firm transforms the work, the capital, the materials and the information into products or services. Also, technological changes can lead to strategic changes in economy, i.e. the advantage of a firm depends on them. Innovations are also one of the sources of competitive advantage considered crucial for surviving on the international market. With innovations, companies can more easily fight for their survival (Savić, Pavlović, 2014). They imply the use of new knowledge if they want to offer new products and services. Barney (2002) points out that organizational resources have developed from different legal, political and cultural traditions and they are characterized by specific administrative heritage from different countries. It can be concluded that firms which operate on the international market have to own modern technology and invest in innovations because in that way, they alleviate the contest with the competition, invest in the knowledge of the employees so they can possess new information and so make conducting business easier.

4. THE ANALYSIS AND THE INTERPRETATION OF THE RESEARCH

The results of the research are based on the answers acquired by the deep interviews. The respondents that represented the firms have been at their key functions for a longer period of time. The sample comprised of five managers. At the beginning of the interviews, the respondents were guaranteed that certain data about the firms would stay confidential. The interviews were recorded with the sound recorder, so the elements of the conversations were electronically documented. The length of the interview depended on the time the respondents had at their disposal. The shortest lasted 40 minutes, and the longest 65 minutes. To protect the anonymity of the employees, the firms were coded with Y1, Y2...Y5. The responses to the questions are presented below. The first firm (Y1) primarily deals with retail and wholesale, and with jewellery manufacturing. The biggest initiator of their expansion and development is the creativity in designing jewellery and the way they place and position themselves on the market. About ten years ago, jewellery as an idea for an international brand was unthinkable, while today, Y1 firm is the synonym for that jewellery. The firm employs over sixty people directly and more than three hundred indirectly, through the suppliers, and develops the production in Croatia, while at the same time placing the domestic product on international fairs and markets. The basic business of the second firm (Y2) is information and telecommunication. In cooperation with the global partners, they deliver information, telecommunication, network and safety solutions for small, medium-sized and large companies on the Croatian and the neighbouring markets. Y2 has direct contracts with the leading ICT producers which enables the firm to gain insight into newest information on all the products and technological solutions. The biggest partners (principals) of Y2 are DellEMC, Bosch, Mitel, 2N, Cisco, CheckPoint, SonicWall, Vmware, Patton and Microsoft. Y2 has used government subsidies for small and medium-sized entrepreneurs. The third firm (Y3) is a software development company with international experience in programming and designing websites and mobile applications. The main registered business of Y3 is computer programming. Today, the organization has more than seventy programmers and over three hundred external associates that cover almost all

software technologies. It is directed solely towards foreign markets and foreign clients and operates actively in twenty countries worldwide. They have positioned themselves on the Croatian market as the firm that introduces innovations into their internal processes and in that way adjusts to the demands of their clients. The fourth company (Y4) is a family firm that, for the last 25 years, deals with the buying, selling and processing logs into the elements for parquet floors and planks. Due to their long-term tradition and flexibility evident in the small number of employees and efficiency, the company operates profitably on the Croatian and the surrounding markets. The fifth company (Y5) deals with the production of lime and stone aggregates. This business falls into the category of the base industry of mineral raw materials processing and as such is under the influence of the costs of energy necessary for the production. The company owns high quality raw materials and a high level of energy efficiency is achieved due to the investments in the production drive and the use of alternative fuels in the process. Table 1 gives the overview of the key items of the interviews that will be later explained in detail.

Table 1: The overview of the key items of the interviews

COMPANY	***Y1***	***Y2***	***Y3***	***Y4***	***Y5***
KEY RESOURCES AND CAPABILITIES	Creativity of the employees Care about consumer satisfaction	Quality staff	Personalized client approach Employees with specific knowledge	Staff	Employees with experience Quality of the natural resource
STRATEGY FOR ENTERING THE INTERNATIONAL MARKET	Export 2 franchises	Direct foreign investment	Export	Export	Export
BARRIERS	Not proficient in the language	Legal and tax	Lack of the insurance instruments of the payment Non-transparent legal framework	Bureaucracy connected with delivery	Administrative Customs
USE OF GOVERNMENT SUBSIDY	Do not use	Use	Use	Do not use	Use

As the greatest resources, i.e. capabilities, the CEO of Y1 highlights the creativity and the possibility for placing i.e. positioning on the market and the care for their customers satisfaction, and in that, continual work on enhancing the quality of the product. Likewise, great efforts are made to invest in innovations that Y1 introduces onto the jewellery market, in Croatia and abroad. As the source of competitive advantage, one can highlight the employees with an exceptional creativity and a well-researched market regarding the preferences of the consumers. The CEO of the second firm, Y2, points out that high quality staff is of crucial importance for the survival of the company and highlights that the company invests considerable resources in education and training of their employees, which has made it competitive on the current market for many years. The sources of competitive advantage lie in the relations with the partners that Y2 has been nurturing for years. High quality staff is also the key resource for Y4. The employees of the company excel in high proficiency in the specific line of work, but they also point out that they constantly invest in their education to keep up with the competition. The CEO of Y4 thinks that education of their employees is the key component, because in that way,

they acquire new knowledge and receive new information. The firm invests in the relations between the clients and the suppliers with which they operate from the very beginnings and they are a part of the heritage that characterizes this company. As the sources of the competitive advantage, the CEO points out the long-term quality of the product, competitive prices, avoiding financing by debt, paying suppliers on time and good relationship with the clients. A healthy relationship with the clients is especially highlighted, because the CEO thinks that it is important to notice their wishes, i.e. preferences. He also deems the trust inside the firm as very important. It enables better motivation, which then leads to better business, so, it can be concluded that the trust among the employees is one of the sources of competitive advantage. The CEO of Y3, in charge of international cooperation, points out that their business is primarily based on specific knowledge of the staff they cooperate with regarding the type of the business. Special attention is given to the personalized and unique approach to every client individually. For Y5, the CEO points out employees as the most important resource. Through the decades of work, they have gained the Know-How important for successful business in these trying market conditions. Besides the employees, she highlights the importance of the natural resources – mineral raw material calcium carbonate is of very good quality and suitable for further industrial processing. Also, she points out the production facilities that today enable them efficient work and profitable production due to the long-term investments in them. The sources of competitive advantage are definitely the employees, regarding their knowledge, and the experience which is especially appreciated and they think it is what differentiates them from the competition. They also see the source of competitive advantage in the efficient production (regarding the costs), and primarily in the quality of the product for which they point out it is traditionally recognized by the buyers. Regarding the strategy for entering the international market, Y2 places its products via a distributor and wholesale channels, and via franchises (two of them for now). The CEO states that the primary plan of their business activities was to expand outside Croatia, the reason being too small a market. Because of that, already at the beginning of their business activities, they developed wholesale locations in Europe, and after the first phase of the wholesale network, they began opening retail locations, first in Croatia, then in Slovenia, Austria, Slovakia etc. Y3, Y4 and Y5 also use export as the strategy for entering international markets, while Y2 has used the strategy of direct foreign investment. The CEO of Y3 points out that they encounter issues and foreign clients demands on a daily basis, and these demands are often more complex and challenging that those of the domestic clients. IT industry abroad is more complex than in Croatia, clients ask for more and expect better results in shorter time. Y3 operates on 20 markets abroad. Y4 was compelled to move a part of their business onto other markets because in Croatia there was no sufficient demand for logs. The CEO says that the other reason is that for the companies abroad, it is much cheaper to buy imported wood. Likewise, with exporting into other countries, better price is achieved than in Croatia, for example, due to greater purchasing power (e.g. in Austria). Y5 has chosen export as the strategy for entering the international market. Because of some of the characteristics of the product (high transporting costs in relation to the price of the product), they are present on the regional market: Bosnia and Herzegovina, Montenegro, Slovenia, Hungary, Albania and Kosovo. The export is characterized by the small starting investments and complete control of the production, and the CEO points out that the risk of export is smaller than in all the other strategies. The export is mostly achieved directly through their buyers without the mediators/distributors, since the deliveries are performed in the manner of Full truck, delivered to the buyer's storage. The CEO of Y2 points out that internationalization happened by networking as one of the most essential features of today's technological and entrepreneurial world. Y2 has succeeded in starting business in the Middle East that has been operating relatively successfully for two years providing ICT services. The strategy of the direct foreign investment has been used, because it was estimated that it holds certain competitive advantage not easily imitated and the

competition on that market is not strong. Regarding the barriers, the CEO says that bureaucracy is the main obstacle they have come across in Croatia and points out that abroad, conducting business is much easier and simpler than in Croatia, as well as placing the product or opening a branch office, a firm etc. She states that one of the obstacles is the language, but as the market has become global, so the majority of the employees in the firms have become proficient in at least one of the world languages. The CEO of Y2 also lists bureaucracy as one of the basic obstacle the firm encountered when it was opening the branch office in the foreign country, but also the long-lasting processes of approving documentation have not been crucial for the progress of the society. The main barrier for the CEO of Y3 is the lack of appropriate instruments for ensuring the payment and the non-transparent legal and regulatory framework in the exporting countries. Great financial investments in the development of the business on the twenty markets are also great obstacles. They require large amounts of the working capital that have to be invested in the very preparation and the carrying out the business travels. Moreover, one of the barriers they have encountered is choosing and recruiting the employees and partners that know how to recognize diversity of the cultures and can and know how to adjust to the business systems in different parts of the world. Y4's CEO states that the obstacles during the transport and at the customs have existed ever since the beginning. The bureaucracy has been very challenging at deliveries and with the entire shipping. It is highlighted that, with the accession to the EU, the conditions have changed, so now, minimum documentation is needed, which has alleviated the business greatly. The CEO of Y5 says that the obstacles connected with the administrative and customs area, since it is necessary to go through the export formalities, have a shipping agent, your own employees with the customs licences so they could perform export customs clearance "at home" etc. Besides the fact that the interviewed firms come mostly from different industries, there are connections among them in their international business. As the most important resource, i.e. the source of competitive advantage, the companies mostly underline the staff. The employees are considered a valuable resource that can contribute to a good and successful business. Most firms invest in education and additional training of their employees. Building the career is considered another key element, as well as adding more activities employees can participate in after the working hours. The trust among the employees is also highlighted as one of the key sources of competitive advantage. One of the firms points out choosing and hiring employees as the obstacle because they think that it is exceptionally important for their employees to have a well-developed sense of cultural diversity and the capability of adjusting to different business systems. The interviewed companies have mostly used the export strategy for entering the international market (Y1, Y3, Y4, Y5). Besides the export, they have used the franchise (Y1), and the direct investment strategy (Y2) in the United Arab Emirates. Furthermore, the firms mostly agree that the greatest obstacle to the internationalization is of legal nature. They state some of the issues during the internationalization, like not knowing the language (Y1), which can lead to false or incomplete information, the non-transparent legal framework (Y3) in the countries they export to, the bureaucracy (Y4), etc. One of the firms highlights the administrative and customs barriers in conducting business on the markets outside the EU (Y5), like the obligation to have employees with the shipping licence, etc. Two out of the five interviewed companies do not use government support, although they know they are entitled to (Y4, Y5).The firms opt for international business mostly because there is not enough demand on the Croatian market, or they have already made the decision because of the unfavourable entrepreneurial climate in Croatia. The respondents mostly think that conducting business on the foreign markets is inevitable if a firm wants to grow, but, also, the emphasis there is put on the importance of the innovations and the care for the wishes and the preferences of the consumers.

5. RESEARCH LIMITATIONS

The limitations of this research come primarily from the definition of the sample. The interviews were conducted on a small number of the experts that have taken part in the internationalization of the Croatian firms, so it is difficult to draw a general conclusion on the internationalization of the Croatian companies. Moreover, the conclusion could not be complete, since some of the information gained with the interviews are secret, so not all information could be presented, which definitely influences the understanding of, for example, competitive advantage of a firm. In order for the findings to have more significance, more firms should be included, coming from different sectors and industries.

6. CONSLUSION

Modern business conditions have led to the situation where companies have to direct their activities towards the internationalization as soon as possible if they want to achieve growth. Modern technologies and the availability of information have certainly accelerated the internationalization of the Croatian companies. The decision on entering the international market requires much preparation. First of all, it is necessary to investigate whether there is demand for certain product or service on the international market and then consult with the employees within the firm. Also, it is important to have employees that can easily adjust to the business activities on the international market. After a firm has made the decision, it has to determine the way of entering the international market. The strategies for getting into the international market are: export, franchise, strategic alliances and direct foreign investments, and they differ depending on the level of control and the risk, and depending on the obligations. In order for firms to be successful in internationalization activities, it is important to have resources and capabilities that differentiate them from the competition, i.e. based on which they can achieve competitive advantage. The presupposition of the resource theory is that a company should own unique and specific resources, as well as technology and knowledge if it wants to outdo the competition. The goal of every company that operates internationally should be the development of key resources that should be valuable, rare, that cannot be imitated or substituted. Also, it is important to assure that the resources are heterogeneous, i.e. different from the resources that competitive firms possess. They also should be immobile, i.e. competitive firms should not be able to easily imitate or acquire them. The empirical part of the research was conducted via the method of the deep interview. The findings show how important it is to operate internationally if a firm wants to grow and achieve a long-term survival. It is crucial to hire people who have specific knowledge and can easily adjust to the new environment and rules. The use of modern technology facilitates the process of adjustment to the business on the international market and ensures competitive advantage.

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TRANSFORMATION OF THE WORLD MONETARY SYSTEM FROM THE GOLD STANDARD TO THE CRYPTOCURRENCY?

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ABSTRACT

The world monetary system is a mechanism that links the economies of individual countries into a global economy. Therefore, any violations arising in the functioning of the global monetary system lead to significant problems in the development of the economy of separate countriesandthe world economy as a whole. Historically, the world monetary system passed through four stages in its development. The first world monetary system was the gold standard system. The existence of the gold standard prevented inflation and ensured the equilibrium of balance of payments of states.The next stage was the period of the Genoa currency system. During this period, only some currencies including the British pound sterling and the US dollar began to be considered as gold equivalents. The Bretton woods monetary system was adopted in 1944, which consolidated the leading role of the United States and its currency in the world monetary system, due to the post-war economic power of this country. Under this system, only the US dollar was pegged to gold and exchanged for gold at the request of central banks of other countries.The Jamaican currency system replaced the Bretton woods monetary system in 1971. According to the new system, the rate of the currency of each country began to change according to changes in supply and demand in the foreign exchange market. The modern monetary system is based on the functioning of two currencies, the US dollar and the Euro. Unfortunately, exchange rate fluctuations of these leading currencies negatively affect the economies of other countries. Some experts consider cryptocurrency as the global currency of the future global monetary system. The current situation in the global economy confirms that the world monetary system will inevitably be transformed and this process will be long, ambiguous and possibly not predictable.

Keywords*: Balance of payments, Currency, Cryptocurrency, Global Economy, Financial crisis, Special Drawing Rights, World Monetary System*

1. INTRODUCTION

Turbulence in the global currency and financial markets, the decline of the economic growth in many countries of the world has intensified the contradictions and instability of the development of the world monetary system. Currently global economy is characterized by the dominant role of the US dollar in the Global Monetary System. The US dollar simultaneously performs the functions of both national and world currency. Due to the dual function of the dollar benefits are received by the issuing country, others the states are in the conditions of currency dependence.

2. HISTORICAL STAGES OF DEVELOPMENT OF THE WORLD MONETARY SYSTEM

Historically, the world monetary system went through four stages in its development, and each transition from one system to another was justified by a specific economic and political situation in the world. The first world monetary system was the gold standard system (from 1867 to the 20s of the 20th century), a characteristic feature of which was the adoption of a regime of fix exchange rates**.** The existence of the gold standard prevented inflation and ensured the equilibrium of balance of payments of states.The next stage was the period of the gold exchange standard (Genoa currency system).

During this period, only some currencies (about 30) including the British pound sterling and the US dollar began to be considered as gold equivalents.The Great Depression (1929-1933) had a negative impact on the world monetary system, in which almost all currencies refused to convert into gold. During this period, gold was considered only as a reserve and payments instrument.Due to the existing economic and political situation in the world, at the end of the Second World War, the question of the formation of a new monetary system was raised again. The Bretton woods monetary system was adopted in 1944, which consolidated the leading role of the United States and its currency in the world monetary system, due to the post-war economic power of this country.Under this system, only the US dollar was pegged to gold and exchanged for gold at the request of central banks of other countries. Actually, the Bretton woods system retained the basic principle of the gold standard: the parity between gold and paper money, and the principle of a fixed exchange rate. In 1971 the Bretton woods system collapsed. The main reasons for the crisis of this system were the unstable and contradictory development of the world economy as a whole, the instability of the balance of payments (the deficit of the balance of payments in some countries and the positive balance of payments in other countries).The growing economic power of the Western European countries and Japan, the decrease in the US gold reserves, the Vietnam War, and the energy crises during this period also contributed to undermining the fundamentals of the Bretton woods monetary system. As a result of the collapse of the Bretton woods monetary system, fixed exchange rates were replaced by floating, which increased the economic and financial crises in the world. The Jamaican currency system replaced the Bretton woods monetary system. According to the new system, the rate of the currency of each country began to change according to changes in supply and demand in the foreign exchange market. In the process of transition to a new monetary system, experts assumed that a floating exchange rate would reduce inflation in a number of countries, and countries would be able to manage their monetary policy.Unfortunately, the forecasts did not come true, the economies of most developing countries weakened even more, and capital outflows and inflation rates increased.

3. CURRENT SITUATION IN THE WORLD MONETARY SYSTEM AND PROBLEMS OF ITS DEVELOPMENT

In the context of changes in the globalizing world economy and the global financial and economic crisis (2007-2011), the basic principles of the Jamaica monetary system have ceased to correspond to new trends in the global economy and the actual system is in deep crisis. The modern monetary system is based on the functioning of two currencies, the US dollar and the Euro.Unfortunately, exchange rate fluctuations of these leading currencies negatively affect the economies of other countries. The dollar is extremely volatile (Fig. 1), which undermines its function as a measure of value in the global economy.

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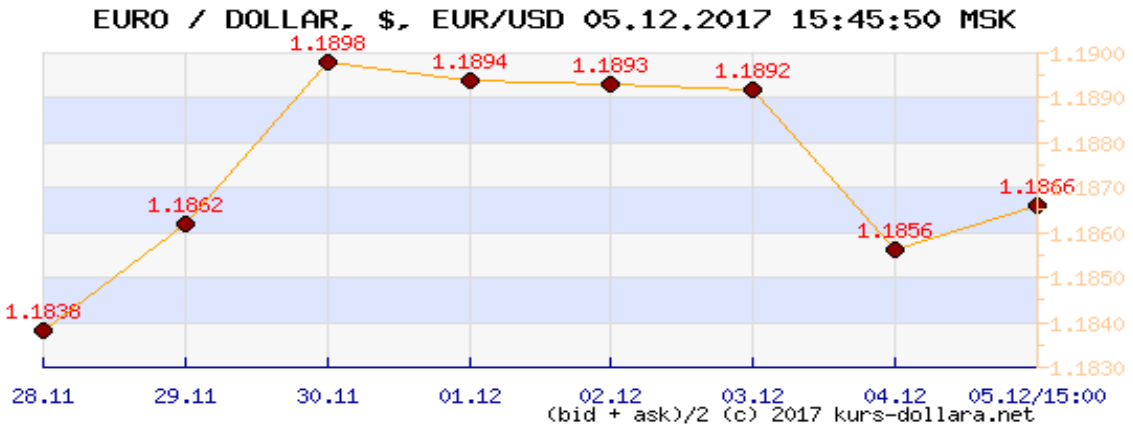


Figure 1: Graph of the dynamics of the euro against the dollar in the Forex market

Currently, the US dollar maintains a leading position in the modern monetary system and in the short and medium period, the dollar will dominate in the reserves of countries.According to the Bank of International Settlements, this currency is the main currency when making currency exchange transactions on an international scale.According to economists, the main strength of the dollar is due to the fact that all oil contracts in the world are made only in dollars. According to the World Bank's forecast, by 2025 the dollar will lose its dominant position and now in the global economy there is one of the most important questions: what currency, or maybe a group of currencies, will replace the dollar?According to experts, the new global monetary system should be based on the principle of multi-currency. None of the currencies in the world today can have monopoly domination. If earlier the global monetary system was mainly determined by the USA, Great Britain, Germany, Japan and France, today increased role of China, India, Russia. Especially the role of the Yuan becomes significant in the construction of a new world monetary system. In November 2015, the Executive Board of the International Monetary Fund completed a five-year review of the basket of currencies constituting Special Drawing Rights (SDR). In result the Board decided that from October 1, 2016, the Yuan will be included in the SDR basket as the fifth currency, because this currency meets all IMF requirements.

Table 1: Weight of currencies in the SDR basket (Press Release: IMF Executive Board Completes the 2015 Review of SDR Valuation)

Period	**Dollar USA**	**EUR**	**GBP**	**YPY**	**Yuan**
2011-2015	41,9%	37,4%	11,3%	9,4%	-
2016-2020	41,7%	30,9%	8,1%	8,3%	10.9%

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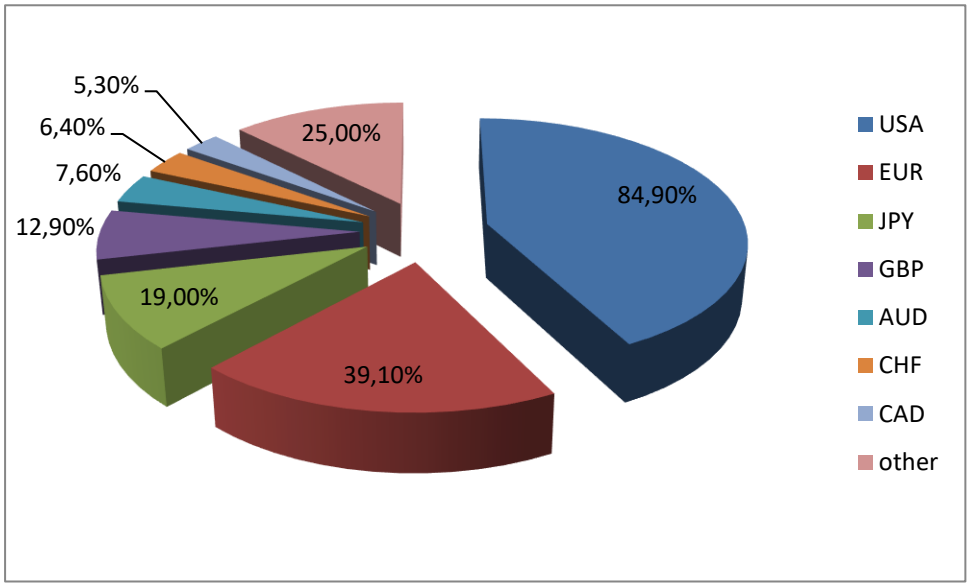


Figure 2: Currency Composition of World FX (IMF, 2017)

Constant fluctuations of the dollar and the euro lead to the formation of regional currencies. For example, "Amero" is a unit regional currency that was planned to be introduced into the territory of the United States, Canada and Mexico. "Afro" is a unit regional currency project developed in West Africa. AKU is an Asian unit currency that is planned to operate in Japan, China, South Korea and the ASEAN countries. The Arab Monetary Fund seeks to use the "Arab dinar" as the collective regional currency of the Arab states. It is predicted that the multicurrency system will replace the current monetary system, which is associated with the rapid growth of developing countries, including the BRICS countries. China has signed an agreement on swap lines with the United Arab Emirates, Japan, South Korea, Malaysia, and Turkey since 2011, thereby expanding the scope of influence of the Yuan. Iran pursues a policy of using national currency in trade relations with partner countries.The transfer of large commodity transactions to national currencies may reduce the dependence of the world economy on the dollar. It is assumed that the multicurrency reserve system will be formed on the basis of two or three currencies (playing the role of reserve at the world level), plus several regional currencies. The "Currency wars" have a negative impact on the world monetary system. The "currency war" refers to the actions of national governments and central banks to artificially lower the exchange rate of the national currency in order to protect their own market from imported goods and create conditions for increasing exports of their own products. Frequent currency crises adversely affect the modern world monetary system. The abolition of currency restrictions within the framework of the Jamaican monetary system has contributed to the growth of international capital mobility, which has become the driving force of currency crises. The main causes of financial crises are:

- the use of currency as an independent asset for investment;
- the predominance of the role of the financial sector in the formation of the public revenues;
- widespread fictitious financial capital;
- acceleration of capital transfer from one foreign exchange market to another;
- limited state regulation of financial markets due to the high degree of integration of various countries into the global economy.

Thus, the global economy is actively seeking solutions to the problems of the monetary and financial system. Unfortunately, the international reserve asset SDR during its existence did not become world money in framework world monetary system.

But experts believe that it is necessary to expand the range of the use of SDRs for mutual settlements between the IMF member countries. The active use of SDR mechanisms can be an alternative to the US dollar as the main currency in the international financial arena. Recently the idea of using precious metals as world currencies has become actual, due to decline purchasing power of the dollar, euro and yen. However, there are several reasons that prevent the use of gold as world money. First, precious metals have the high intrinsic value. This is explained by the fact that it is necessary to spend a part of GDP on the extraction of precious metals. Secondly, the complicated technology of settlements in metals. In order for financial calculations to be made in gold, it must be in cash. Some experts consider cryptocurrency as the global currency of the future world monetary system. Cryptocurrencies have become popular as a result of the rapid development of information technology and the Internet and its circulation does not provide any guarantees. Bitcoin, one of the leading virtual currencies, designed for online payments. Based on the data of Cryptocurrency market capitalizations, the exchange rate of this currency in electronic trading amounted to 15 thousand dollars in December 2017. The cost of cryptocurrency has reached 20 thousand, and again a sharp decline in prices to 13 thousand in January 2018 (Fig. 3),



Figure 3: Dynamics of growth in Bitcoin prices (coinmarket.com)

As can be seen from Figure 2.Bitcoin has a spasmodic growth dynamics, which causes heated discussions of experts about its prospects. Some economists believe that the cryptocurrency can recover the principles of the "gold standard" on a global scale, if will be strict state regulation conditions and concerted action of banks.Some states have already begun to actively use electronic money in the economy. For example, Sweden and Norway have announced a complete rejection in the future of the use of cash in circulation. In the UK, Denmark, the Netherlands and Japan began to actively use cryptocurrency. Currently, there is no single strategy for the development of cryptocurrency in the world, but it is important that the competitive development of various electronic money systems should be under the obligatory control of financial regulators. Cryptocurrency can occupy a niche in which their use will be most effective in countries with a developed economy and a stable monetary system. In developing countries with a infant and unstable monetary system, tight controls are needed in the implementation of cryptocurrency. The number of implemented systems should be limited and, if possible, unified.

4. CONSLUSION

As a result of the analysis, we can conclude that in the modern global economy, the US dollar or the currencies of any other countries are not able to perform all the functions of the world currency. Currently, the most acceptable form of functioning of the world monetary system is a multi-currency standard, because are increasing economic role some group developing countries in the global economy (China, India, Brazil). At present, reforming of the IMF and the whole monetary system has been necessary. Thus, the issue of transition to the new monetary system has become very urgent and requires lengthy negotiations between the countries of the world.The current situation in the world economy confirms that the world monetary system will inevitably be transformed and this process will be long, ambiguous and possibly not predictable. Thus, to build a new financial architecture, it is necessary to do the following transformations:

1. To strengthen the global financial system by creating global financial centers and a variety of reserve currencies;
2. To increase the legitimacy of existing financial institutions;
3. To maintain the free choice of exchange rate regime based on liberalism and on interstate regulation.

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DEVELOPMENT AND INTERNATIONALIZATION OF SMES IN POST-SOVIET COUNTRIES: SUGGESTIONS FOR FUTURE PERSPECTIVES

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ABSTRACT

The principal objective of this paper is to analysis of current SME situation in the Post-Soviet Countries, state policy, supporting programs, financial support, finding similarities and differences in post communistic legislative features, institutions, economic systems, understanding positive and negative sides of these differences and their affect on SME activity. The paper analyses a situation of one-way integration mode and information flow and outlines an existing gap in SMEs management approach. In order to succeed on international markets, it is needed to build up a network of awareness and information exchange between major actors such as SMEs, public and business support institutions, academia and other players. The article relates the key attributes of factors directly connected to SMEs and integration as well as concentrates on how SME could benefit from a closer regional economic integration through information exchange.

Keywords: *internationalization, value chain, SMEs, information exchange, integration, Azerbaijan, Georgia, CESD report, non-oil sector*

1. INTRODUCTION

For a long time, the role of small and medium-sized businesses was underestimated and it was believed that after these firms undergo the necessary stages of development they will eventually become large companies. But with time it became clear that this point of view is not correct all the time, and some companies remain same size even after passing all stages of development. The first wave of interest in the small and medium business sector was observed in the United States and Great Britain in the 1980s, when one of the studies proved that large corporations have higher costs, they are not quite inclined to innovate behavior, and the probability of their bankruptcy could lead to extremely negative consequences for society, and, they react more slowly to changes in the economy (Manahan, 2010). Gradually the researches, focused on small and medium-sized businesses appeared, they studied SME's role in creating jobs, solving social problems, increasing economic growth and competitiveness. It turned out that this sector is better suited to development in times of crisis, so in Germany, France, the United States and other developed countries, support for small and medium-sized businesses became important - firms in this sector have turned into a kind of indicator of the state economic situation: they are more sensitive to changes in economic infrastructure, falling or rising rates of profit in the economy and they are more adaptable to current changes (Laricheva, Strelkova, 2006). In addition, small and medium-sized enterprises are more dynamic in developing of new products and capturing new economic niches. Active innovative policy is one of their main features: for example, in the US, the number of innovations per worker implemented in the SME sector is twice higher than same indicator in large companies [Manahan, 2010]. Besides, small and medium enterprises are characterized by increased profitability and more efficient use of available resources, since their managers are personally interested in minimizing costs and increasing profits (Bessonov, 2013).

2. INTERNATIONALIZATION

2.1. Internationalization happens in big and small companies

In the modern world, internationalization has become an important development trend for small and medium-sized enterprises. For a long time, large corporations were seen as the main players on the world stage, but today no company can be isolated from the process of globalization and international competition. Because of development of technologies and the expansion of international economic relations, small firms have the opportunity to implement the strategy of internationalization - to start operations abroad and expand their activities beyond the national market. The interest of the leaders of small and medium-sized businesses is connected with the enormous opportunities that internationalization can bring, but they have to overcome significant obstacles in the process of its implementation. One such difficulty is defined as "liability of foreignness" (Zaheer, 1995). It is the costs of doing business abroad, which are faced by firms entering the new market, but are not relevant for local firms. For example, the costs of transportation and coordination of operations with foreign partners, the costs associated with ignorance of the cultural characteristics of this country, the foreign language and the local business environment, as well as the costs that firms may face from their national environment, including restrictions on the sale of certain types goods (Zaheer, 1995). Of course, these problems arise for large companies too, but for small and medium-sized businesses any additional costs are extremely high. Leaders of small and medium-sized businesses are interested in obtaining maximum profit, but at the same time they are forced to pay taxes, carry organizational and production costs, etc. In this regard, all additional costs that may arise in accordance with internationalization decision should be carefully analyzed and taken into account. Another entry barrier is the available resource; knowledge and experience of small and medium-sized businesses are often not enough to actively develop operations in the new foreign market. This problem is called the "vulnerability of newness / smallness" (Stinchcombe, 2012). This means that starting a business abroad, a company faces the same problems as "start-ups": they need to look for the necessary resources, build relationships with all stakeholders and prove their legitimacy (Barringer, Greening, 1998). Faced with an increased level of risk in a new environment and role (Delios, Henisz, 2000), small and medium-sized businesses are looking for ways to avoid or minimize it. But due to the limited resources available, their probability of internationalization remains much lower compared to large firms (Hollenstein, 2005). This helps us to understand why some theoretical approaches developed for large companies do not "work" when it comes to small and medium-sized businesses (Chen, Hambrick, 1995). The main differences were classified according to several criteria that characterize the company's management process (goals, leadership, decision-making, employees, planning, formalization of processes, financial resources and a typical internationalization strategy) and are described separately for small, medium and large businesses in Table 1. In small and medium-sized businesses, key position belongs to a founder, who is also the manager of the company, while in large companies professional managers are involved (Westhead, Usbasaran, Wright, 2001). Regarding to this, the process of decision-making in small and medium-sized businesses differs significantly from similar processes in large companies, since the manager makes decisions independently (sometimes with the participation of specialists holding key positions). This makes it possible to solve problems more quickly, but also puts the firm in greater dependence on one person (or team of managers) and his subjective assessment of current trends [Bloodgood, Sapienza, Almeida, 1996]. In larger companies, the decision-making process takes much longer and depends on the existing organizational hierarchy. On the one hand, this makes them less flexible, but, on the other hand, allows them to make more "rational" decisions. Basicly, all the processes related to internationalization happens in very different way in large companies and in small and medium ones.

Table 1: Internationalization strategy in big and small companies

Criteria	Small business	Medium business	Large business
Goals	Determined by market trends, often intuitively	The market makes adjustments, changes are selective	Domination in the market, goals are systematically revised
Management	Founder, Authoritarian Management	Founder / manager and specialists in key positions	Professional management, organizational hierarchy
Decision making	Founder	Founder / manager and specialists in key positions	Organizational Hierarchy Chain
Staff	Personal relations, high degree of involvement	Cooperation relations, some degree of involvement	Strict hierarchy of relations, low degree of involvement
Planning	Irregular and short term	Short term and irregular long term	Long term
Formalization	Informal processes	Some processes are formal	Formal structure and processes
Financial resources	Personal funds/Bank	Personal funds/Bank	Different sources (banks, stocks)
Internationalization Strategy	Export	Export	Export and FDI

2.2. Concept of Internationalization

The beginning of internationalization process is the general decision to become involved in foreign markets. The motivation can come from both the company itself and from outside. In order for the internationalization decision to be positive, however, internal basics must also be fulfilled within the company, which makes successful international activities possible in the first place. These include the appropriate commitment of management as well as the availability of the necessary internationalization skills and competitive advantages that can be used abroad. There could be various reasons why companies are interested in international operations: the goals of internationalization can be resource-oriented (access to raw materials, suitably trained workers, capital or other resources), efficiency-oriented (use of cost-cutting potential through relocation of production abroad) or strategically motivated (expansion competencies to increase competitiveness) (Dunning and Lundan 2008). In other words, they can seek for additional profits, they want access new information, they look for potential partners or they want to maintain and strengthen their competitive advantage. Thus, we can define internationalization as a process of developing company international operations with a purpose to obtain some certain benefits. The main motive for export, however, lies in the development of new markets for their own products and services. Export is one of the main strategies for the internationalization of small and medium-sized firms (Reynolds, 1997). But the choice of internationalization strategy for small and medium-sized businesses usually stops at exports, because due to the limited resources (for example, financial, human), they do not have the opportunity to make direct foreign investments that large companies can afford (Zahra, Neubaum, Huse, 1997). This causes particular attention of researchers to small and medium-sized firms and their international activities, since these differences can influence both the prerequisites and the result of their internationalization. That's why internationalization is a crucial strategy for SMEs who want to survive and succeed in the contemporary world. And here are some advantages of internationalization:

1. When entering the international markets, SMEs increase their client base, as the result of available expansion to new markets. This leads to increased revenues and the opportunity to reinvest for further growth.
2. Internationalization allows SMEs to have access to all the resources needed at a lower price and to the resources that are not enough in the home region.

3. Internationalization makes it possible to achieve the economies of scale, especially if the production volumes of the company were limited in the domestic market, because of its saturation or intense competition
4. Internationalization helps to improve productivity and reduce the production costs, due to the fact that company can take the advantage of differences in currency exchange rates, tariffs, prices, etc
5. Internationalization allows SMEs to distribute their risks among different countries and reduce the dependence on domestic markets. more chances to survive and develop.

2.3. SME internationalization in post-soviet countries

2.3.1. Azerbaijan, Georgia and Czech Republic cases

Considering the peculiarities of the SME internationalization, it is necessary to clarify what exactly is meant by the "small and medium-sized enterprises" term. In theory, there is still no single approach to quantitative and qualitative definition of small and medium-sized enterprises. Each country has its own legislation to define which exactly companies could be referred as small and medium ones. In Azerbaijan Republic, In accordance with the "Large, Medium and Small Business Criteria", approved by the Cabinet of Ministers of the Republic of Azerbaijan dated June 5, 2015, small entrepreneurs have the average number of employees in the total number of employees up to 25 and annual revenues up to 200,000 manat. (Cabinet of Ministers of the Republic of Azerbaijan, 2015). It should be noted that such quantitative citeria are not characteristic for all countries. Table 1.1 presents the main criteria for classifying subjects to the small and medium business sector in Azerbaijan, Georgia and the EU countries (as defined by the Commission of the European Union).

Table 2: Criteria for classifying subjects as small and medium-sized businesses in different countries

Country/Companies	**Small companies**		**Medium companies**	
	Amount of employees	Income	Amount of employees	Income
Azerbaijan	< 25	< 100 000 euro	25-125	< 600 000 euro
Georgia	< 20	< 166 000 euro	20-100	< 500 000 euro
EU	< 50	< 10 mln euro	50-250	< 50 mln euro

Source: "Large, Medium and Small Business Criteria", approved by the Cabinet of Ministers of the Republic of Azerbaijan dated June 5, 2015

Source: Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium enterprises. (2003/361/EC), Official Journal of the European Union, L 124/36, 20 May 2003

Source: Law of Georgia No. 519 of 12 June 2012, on the Georgian National Investment Agency; Tax Code of Georgia

2.4. SME in Azerbaijan context

The problem of internationalization of small and medium-sized businesses is especially urgent for countries in transition such as Azerbaijan; today Azerbaijan faces a large-scale task of modernization and diversification of the economy in order to reduce dependence on the export of natural resources, which is more than 90%. One of its solutions can be the development of international activity of small and medium-sized enterprises, as they have a significant and unrealized growth potential. However, the level of involvement of Azerbaijan's and other transitive countries' small and medium-sized businesses in international activities remains still low, which necessitates a more intensive study of this phenomena. Nowadays development of Small and Medium Enterprises in Azerbaijan became a crucial issue to solve in the terms of

employment, diversification and import substitution via producing domestic goods using local resources and avoiding import dependency. All these macroeconomic indicators providing sustainable economic growth, and that is why government tries to create favorable conditions for the growth of non-oil tradable sectors, which is economy diversification. The possibilities of such diversification could lay in the creation and stimulation of favorable environment for entrepreneurship. Relying on oil and gas prices that are falling down and difficult to predict is quite risky for national economy, as well as downturn in Azerbaijan economy depicts the fact that dependency on oil and gas sector should be reduced and eliminated in shortest time (CESD report on SME development in Azerbaijan, 2017) If not, then we could not avoid its negative effects, such as deficit in balance of payment and undiversified exports. Besides, the oil and gas sector is capital-intensive, so it has little effect on job creation or employment; while, the non-oil sector might contribute into employment rates (Macroeconomics, Mankew). Micro and small- and medium-sized enterprises in Azerbaijan have been divided into two main groups: individual entrepreneurs (one owner without forming a legal entity) and small and medium enterprises (many employers, legal entities). All individual entrepreneurs are officially commenced as small enterprises and registered as legal entities accordingly to two indicators: number of employees and annual turnover (International Finance Corporation, 2009). Azerbaijan Republic Cabinet of Ministers has defined the "criteria of SMEs" on the 5th of June, 2015, but new order with some changes was approved in June 2016, and it is currently valid. The new order assists to simplify SMEs defining criteria, in accordance with new order, as shown in Table 1, classification is defined by the size of the enterprise, average number of employees and annual turnover but not by the sector in which it works (president.az, 2016).

Table 3: Criteria of SMEs determination in Azerbaijan

Entrepreneurship Category in terms of size	***Average Number of Employees (Definition 1)***	***Average Number of Employee (Definition 2) For Tax Purposes only***	***Annual Revenue***
Small	< 25 employees	Self employed	< 200 000 AZN
Medium	25-125 employees	Hired labor	200 000 - 1 250 000 AZN
Large	> 125 employees	Hired labor	< 1 250 000 AZN

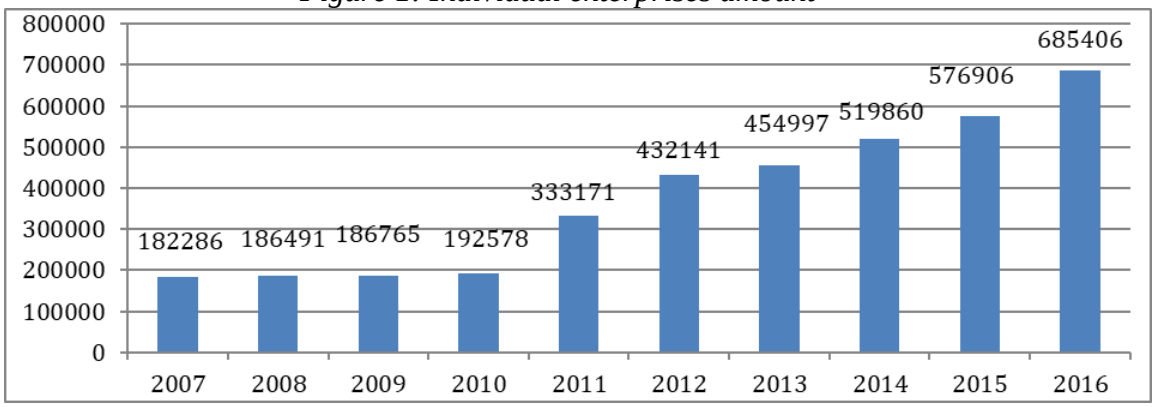
Source: AR Cabinet of Minister's order 29th June, 2016.

2.5. Statistical review

Considering the data given by the Ministry of Economy of Azerbaijan for 2016 year, the amount of entrepreneurship units in all areas of the economy was 792,764. In compare with 2015, the amount of entrepreneurship enlarged by 77,179. If review their geography, 36.1% of all SME's were registered in Baku while 63.9% in other cities of Azerbaijan. Besides, we should take into account the fact that SME activity in Azerbaijan have been divided into 2 groups. These groups are those who are creating legal entities and those who are working individually without creating the entity. Furthermore, the number of individuals who are working without generating a legal entity is 685,406. Let's see statistical data given to both of these categories of entrepreneurs.

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Figure 1: Individual enterprises amount



Source: The Republic of Azerbaijan Ministry of Economy, 2017

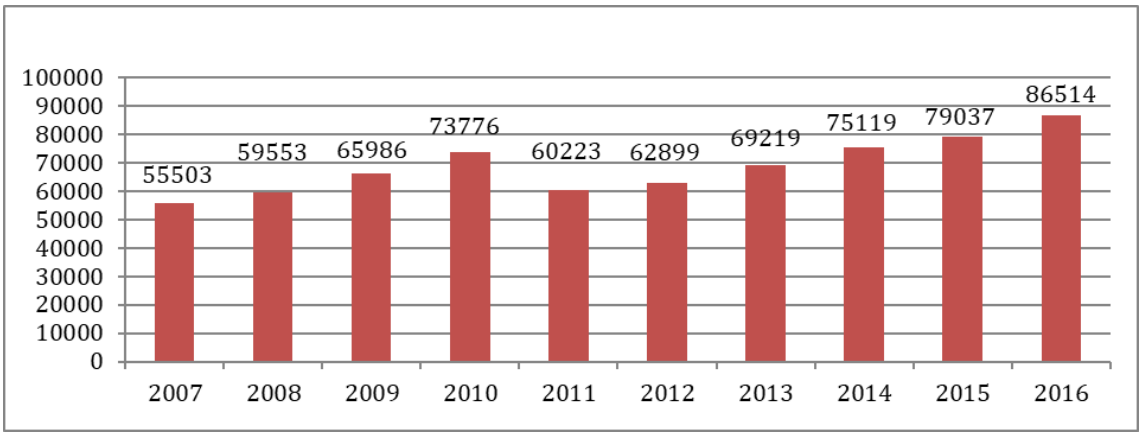
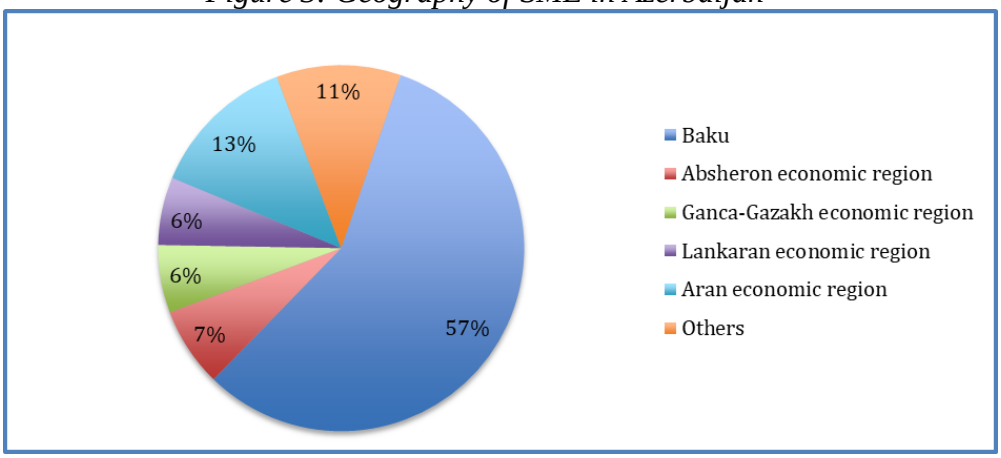


Figure 2: Small enterprises amount
Source: The Republic of Azerbaijan Ministry of Economy, 2017

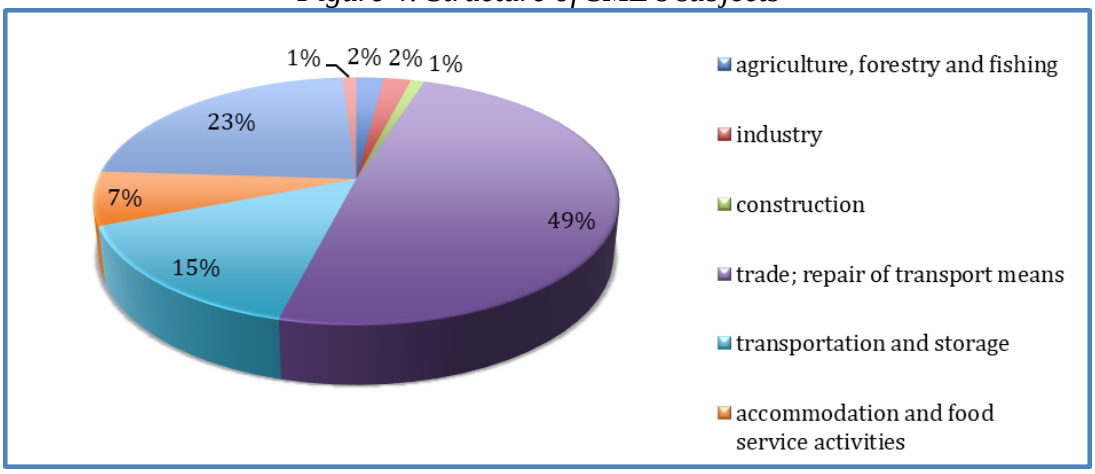
Regarding the orientation of SME in Azerbaijan, proportion of SMEs busy in non-oil sector is approximately 5.8% of value added, 0.7% in total gross profit, 6.5% in annual average employees. Geography of SME's in Azerbaijan is also diversified - they are mostly located in Baku city (approx. 60%). The reason is big size, high urbanization level and of course developed infrastructure of the capital.

Figure 3: Geography of SME in Azerbaijan



Source: The State Statistical Committee of the Republic of Azerbaijan, 2017

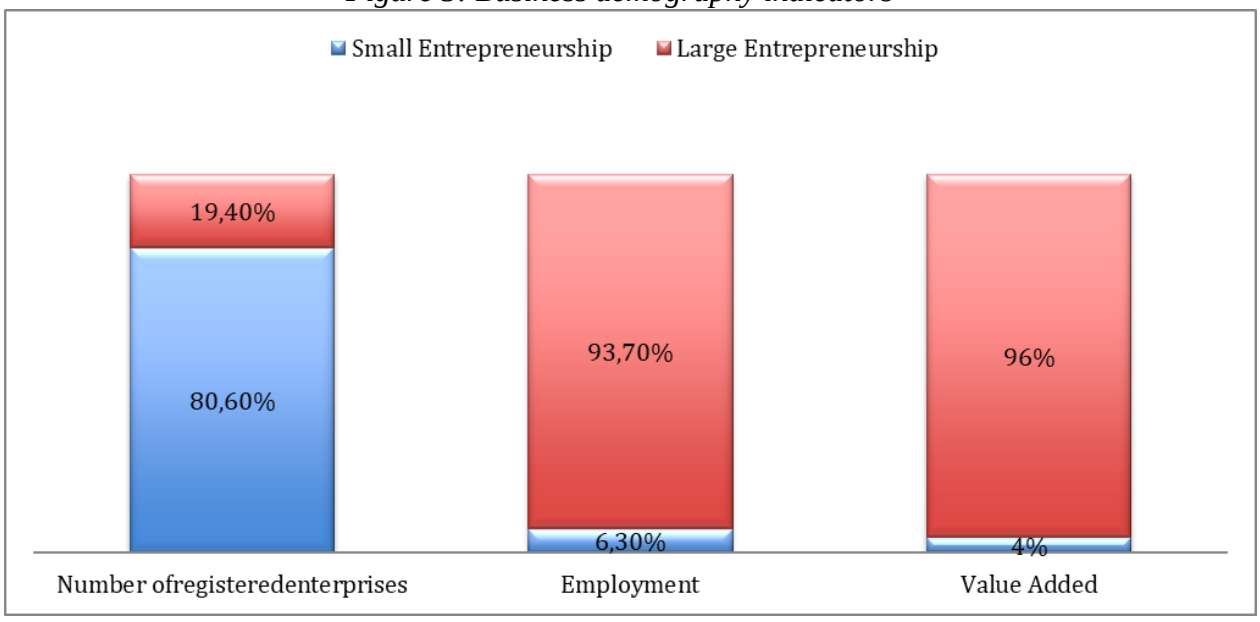
Figure 4: Structure of SME's subjects



Source: The State Statistical Committee of the Republic of Azerbaijan, 2017

We can see clearly in the figure above that, the most of the SME's are engaged within the trade and retail trade sector and they made almost half of whole SME's share in Azerbaijan. Possible reason is that production sector in Azerbaijan has been developed worse, than consumption one. And another cause for the unequal development of the SME in different sectors could be the existence of monopolies, but in retail trade sector level of monopolization is low and the initial capital requirement is small, therefore there is a big chance for SME's to orientate themselves without any barriers from the monopolies. (CESD Report on Azerbaijan SME 2017). Due to the Economy Diversification strategy of Azerbaijan Republic other sectors than oil and gas must be improved, therefore SME sector is one of the important ones supported by the government via special state programs and funds. However, the differences between value added of SME's in European countries is much higher (more than 50%) than in Azerbaijan (only 4%). The diagram below is showing us that Azerbaijan is mostly engaged with the oil manufacturing and making international transactions on oil more than on products of any other sector.

Figure 5: Business demography indicators



Source: The State Statistical Committee of the Azerbaijan Republic, 2017

Depicted low level of development of the small and medium business sector in Azerbaijan shows that internationalization capacities of local SMEs are also a bit limited. This problem occurs not only in Azerbaijan, but also in Georgia, Kazakhstan, Russia, Turkmenistan, Romania, and other post-soviet countries, that are unfamiliar with business culture because of their communist past. Most of these countries as well as many emerging economies, are going through a period of major changes, many of which are related to transformations taking place in the institutional environment. The institutional environment is unique for each country. It creates "rules of the game" (North, 1990), which affect the development of business and the behavior of firms, regulating their interaction and defining the context for making managerial decisions. Thus, firms are dependent on the national institutional environment in which they were "born" and are developing at the present time, and this dependence is especially characteristic of small firms, because due to the limited resources they do not have the opportunity to change it. It is believed that in the emerging economies, the institutional environment plays a special role in terms of the speed and dynamism of the changes that occur in it, which may have unpredictable consequences for business (Yamakawa, 2008). It is important to define the impact of the national institutional environment on the development of the internationalization of small and medium-sized businesses and what exactly institutional factors play a decisive role in this process. In particular, there is no understanding of the specifics of the national institutional environment that surrounds small and medium-sized businesses, and those factors that may prove crucial in making management decisions about internationalization. Thus, a more in-depth study of the influence of the national institutional environment on the internationalization of Azerbaijan, Georgia and other post-soviet CIS countries SMEs is also very important.

2.6. Barriers of SME development and internationalization in Azerbaijan

Because of the post-communist political background, private sector as well as the business culture in Azerbaijan is quite new concept. Azerbaijan has been independent after Soviet Union collapse in 1991 as well as Georgia and other post soviet countries. And since that moment all of these countries are trying to develop their own model of sustainable economic growth. Challenges and solutions in all of these countries are globally similar but locally quite different from country to country. In Azerbaijan this model was mostly oil oriented because of the natural resources abundance. This model worked very well in the stage of capital accumulation, but now state policy has changed towards economy diversification and development of non-oil sectors, and SME sector development is one of the state strategy priorities. Although, local SMEs are facing different barriers for growth and development because this sector is still infant in Azerbaijan. In accordance with Islamic Cooperation for the Development of the Private Sector (ICD), the main barriers for Azerbaijan SME development are tax rates, access to finance, and corruption. Access to finance is one of the most important issues in SME development, and survey data of ICD indicates that number of people reporting it as a major barriers in Azerbaijan is 9% higher than the world average, at 16% (Islamic Corporation for the Development of the Private Sector, 2012). The same survey depicts tax rates that are over 20% as another barrier to entry for SMEs in Azerbaijan.

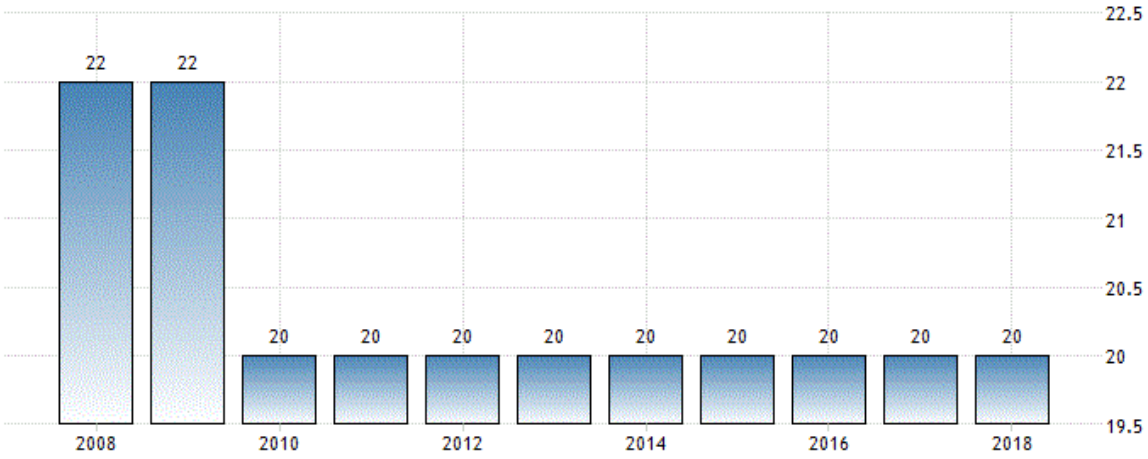
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Table 4: Taxes in Azerbaijan

Azerbaijan Taxes	Last	Previous	Highest	Lowest	Unit
Corporate Tax Rate	20.00	20.00	25.00	20.00	percent
Personal Income Tax Rate	25.00	25.00	35.00	25.00	percent
Sales Tax Rate	18.00	18.00	18.00	18.00	percent
Social Security Rate	25.00	25.00	25.00	25.00	percent
Social Security Rate For Companies	22.00	22.00	22.00	22.00	percent
Social Security Rate For Employees	3.00	3.00	3.00	3.00	percent

Source: Ministry of taxes of Azerbaijan Republic

Figure 6: Azerbaijan tax rate

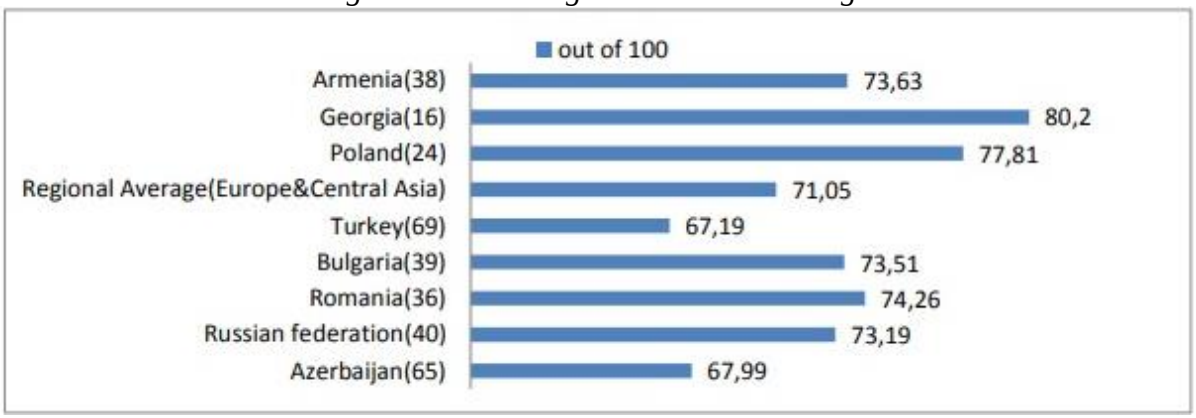


Source: tradingeconomics.com and Ministry of taxes of Azerbaijan Republic

Unequal distribution of SMEs all over the country also impact to SME situation in the country. Due to the fact that they are mostly located in the capital and Absheron area, they do not expand to other regions of the country and that is why infrastructure of these regions stays underdeveloped and population of these regions are moving to Baku and forcing over urbanization process there. According to the statistics of Ministry of Economy, published in 2017, Baku accounted for nearly 57% of overall enterprises in Azerbaijan (Ministry of Economy of the Republic of Azerbaijan, 2017). See Figure 3. Regarding to the World Bank data in 2017, Azerbaijan is in the 65th place for its overall business environment within the 189 target countries. However, Azerbaijan takes good place among the 189 countries in “overall doing business environment" index.

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Figure 7: WB Doing business 2017 ratings



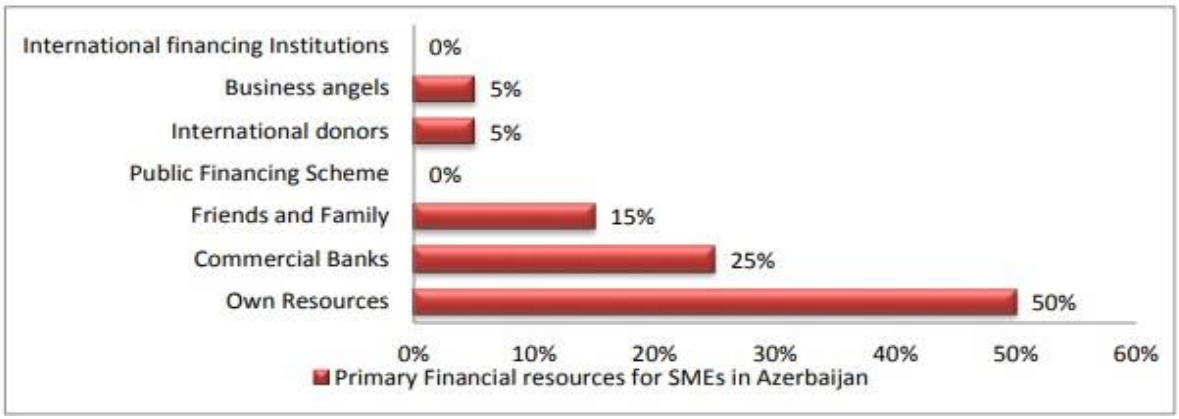
Source: World Bank, doing business database 2017

2.7. Access to finance

Obviously, one of the most crucial factors boosting SME activity is financial support. Azerbaijan SMEs have a limited access to commercial banks loans. The reason is that offered interest rates are very high, approximately 30%, and most of them are short term loans, often unbearable for SMEs. The situation has changed slightly since February 2018, when Azerbaijan state bodies have applied insurance for such kind of loans. This decree under the President of Azerbaijan Republic states that in the case of business failure the government obliges to pay 70% of the loan, and that measure is supposed to impact business activity of the country in the positive key. If regard to official data, provided by EBRD "Business Environment and Enterprise Performance survey" in 2014, more than 45% of all small and medium enterprises in Azerbaijan, are discouraged to take loans, and main reason of this fact was high interest rate. More than 50% of enterprises cited this reason, second popular reason was complex procedures, then approval expectance and all other issues to follow. (EBRD, 2014). The World Bank report also mentions that the top three barriers to start SME in Azerbaijan are: difficulty in finding needed funding, large initial investment and difficulty in finding proper business partners. The most common regulatory constraints were constantly changing taxation and bankruptcy legislation. Financing sources of SME's in Azerbaijan are nor in a wide range. Eastern Partnership (EaP)Comparable analysis of countries shows that, the majority of enterprises in Azerbaijan (more than 50%)are funded by entrepreneurs' own resources and generally, the trend continues throughout the life of the enterprises. Only 25% of Azerbaijan entrepreneurs use loan from commercial banks and alternate loan options such as international financial institutions and public financing schemes are not existing. East Survey Index (2012), also shows that number of SMEs taking a loans from international donors or international financial institutions are close to zero . All of these show us that SMEs access to finance is not diversified. The reason could be low level of Azerbaijani entrepreneurs financial literacy. In this circumstances Azerbaijan's micro-finance institutions became important source of SMEs financing. World Bank Report (2015), estimates that in 2013 Azerbaijan micro-finance institutions have financed approximately 400,000 of local SMEs.

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Figure 8: primary financial resources for SMEs



Source: East Invest Survey, 2012

2.8. Other barriers

2.8.1. Limited access to markets

Lack of the knowledge about markets awareness hinders SMEs' ability to expand their borders into local and international markets. Majority of SMEs in Azerbaijan don't have necessary knowledge about market requirements, they mostly making profits for the short term. With a plan to integrate into World Trade Organization and /or to European Union (EU) markets, Azerbaijan SMEs must meet international standards and market requirements.

2.8.2. Baku exchange market

Extremely low level of financial markets is development and access is another huge constraint for SMEs innovation and growth. According to the Central Bank of Azerbaijan (CBAR) and Financial Market Supervisory Authority (FIMSA), stock operations volume in Azerbaijan makes only1% share in GDP and that pushes back SME growth and development (president.az, 2016).

2.8.3. Legal barriers

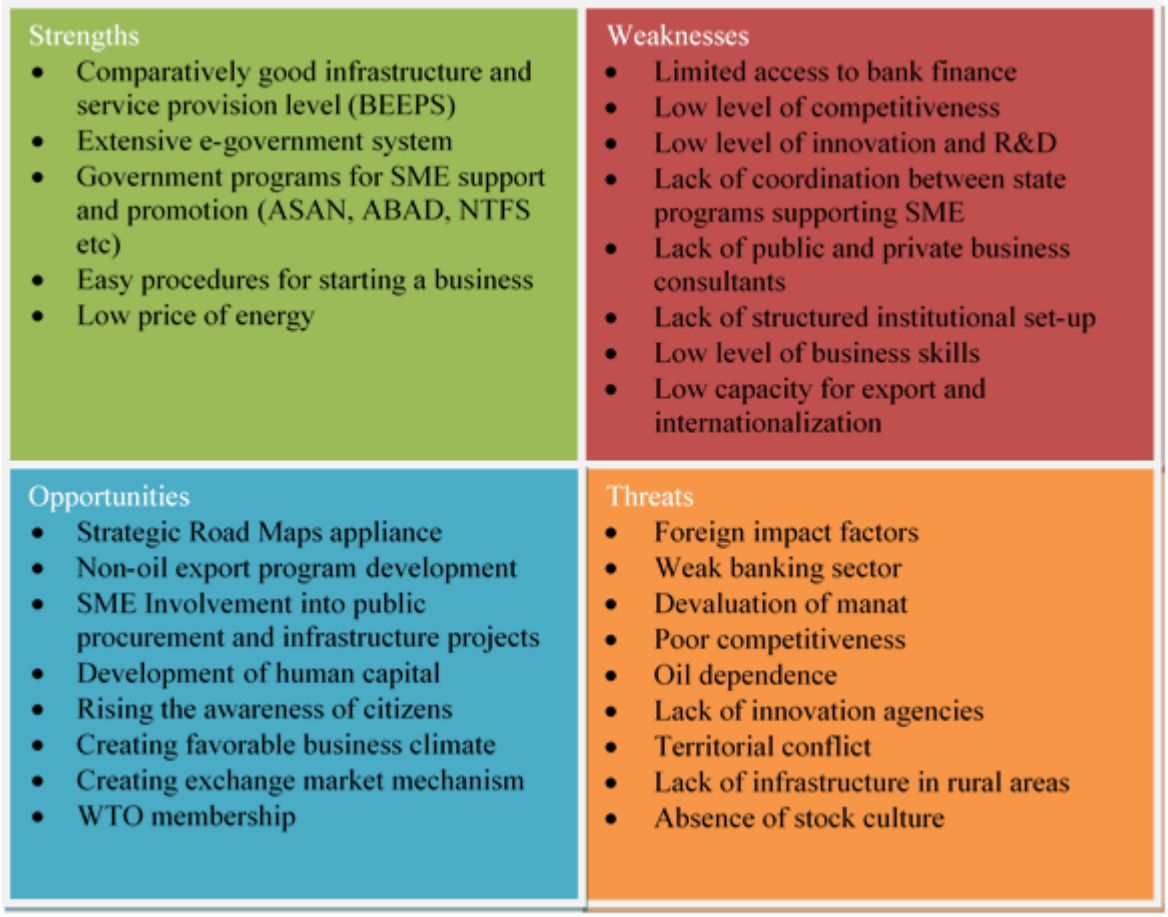
The registration process is simpler for individual entrepreneurs than for legal entities and for that reason all the expenses such as registration fees, license and permits are at a lower price for individual entrepreneurs. Taxation process and tax inspection is also different in SME's and individual enterprises, second ones are less often checked by the inspection services, due to the fact that state bodies do not have a list of all registered individual entrepreneurs. However, legal entities must register in relevant ministries and agencies, therefore, they are checked by these government structures on regular basis. The simplicity of the procedures in case of entrepreneurship activities termination be also improved.

Besides, all these inspections and procedures should be enhanced in the conditions of absolutely transparency and certainty.

2.8.4. Poor business skills

In Azerbaijan, the correlation between educational system and labor market is still low. There is a gap between the needs of the local work market and adequate qualifications of existing work force, and that makes the school-to-work transition difficult. Lack of properly skilled employees and a workforce misfit to the local and national market. (CESD Report SME of Azerbaijan, 2017)

Figure 9: SWAT Analysis of SME sector in Azerbaijan



2.9. Institutional support of SME's in Azerbaijan

With a purpose to boost SME sector development in Azerbaijan, state bodies have adopted a number of legislative acts such as the Law on Entrepreneurship, the Law on State Support for Small Business, the Law on State Registration and State Registry of Legal Entities, etc. At the same time, company registration processes are simplifying via e-government services. The institutional support for SMEs has also been developed after the creation of Department of Entrepreneurial Development Policy under the Minister of Economy and Industry. This department is responsible both for the development and also for the implementation of SME policy in Azerbaijan. At the same time, there are several agencies like the Baku Business Training Centre, ABAD, the National Fund for Entrepreneurship Support and AZPROMO. Unfortunately, co-ordination between this agencies and departments are still not very effective, so the platform, merging this bodies together with SME could provide higher efficiency of such cooperation. Actually, there was no any defined SME strategy or program until 2016, when "Strategic Road Map on Production of Consumer Goods at Small and Medium Enterprises in the Republic of Azerbaijan," was approved by the Decree of the President of the Republic of Azerbaijan, dated December 6, 2016. This Road Map has been developed as part of the country-wide measures to ensure competitiveness, inclusiveness and sustainability in the country's economy. At the same time, some progress in improving of business climate in Azerbaijan was done: termination of entrepreneurship inspections for two years, reducing the licenses and permits amounts for entrepreneurial activity, reducing the amounts of fees, simplified procedures for issuing permits, establishment of an electronic portal in this area, application of "one window" system (the time for the registration of new enterprises has decreased from 53 days to 3-7 days and the number of procedures from 13 to 5), minimizing the number of required

documents and procedures during import-export operations, and so on. As can be seen from the actions mentioned above, several initiatives have been enacted to fill the gap in SME support and legislative frameworks in Azerbaijan, some improvements still need to be made (CESD Report SME of Azerbaijan, 2017). Recently, the in According to "Starting a Business" indicators of the World Bank's Doing Business 2017 report Azerbaijan was ranked 5th based on its registration procedure for new companies simplicity. (WB 2017) According to data in this report, starting a business in Azerbaijan requires 2 procedures, takes 3 days, and costs 1.3% of income per capita for men and women. Registration for individual entrepreneurs is free of charge and it takes three days for companies to register. Entrepreneurs can easily do their registration in the State Agency for Public Service and Social Innovation's public service (ASAN Service Centers). And if they need to get any information about permits and licenses, there is a state website www.icazeler.gov.az. with all needed info. Besides, there are organizations as Baku Business Training Centre (BBTC) and its seven regional office, The National Fund for Entrepreneurship support, the Export and Investment Promotion Foundation. These organizations provide defined range of services ant implement various trainings like start-up trainings. BBTC has well-developed online training facilities and approximately 25% of users of online training services are women. Same progress could be observed with the launch of several informative websites such as www.biznesinfo.az and www.b2b.az. But according to the OECD survey despite the progress supporting services, almost 79% of SMEs in 2015 were not aware of any services provided by government or other organizations to support SME's (OECD/European Union/EBRD/ETF,2015). Regarding to SME innovation policy, Ministry of Communication and High Technologies of Azerbaijan has established the State Fund for Development of Information Technology - ICT Fund In 2012. This fund formed from budget, supports innovative ICT projects in several ways; it distributes concessional loans through banks with a maximum 5% interest rates. Loans can be small (from 10,000 AZN to 50,000 for up to three years), medium (from 50,000 AZN to 500,000 for up to five years) or large (from 500,000 AZN to 5,000,000 for up to ten years). It also provides venture capital for development projects, technologies, equipment and software. The ICT Fund also awards grants, mainly to SMEs, for development of software products and innovative infrastructure projects. Although the maximum potential size of grants which are awarded by the ICT Fund is 300,000 AZN, but fund gave grants only 10,000 AZN to 12,000 AZN to 30 companies. National Fund for Entrepreneurship Support (NFES) of the Republic of Azerbaijan provides entrepreneurs with preferential loans, including an allocation of loans under favorable terms from the state budget. In 2016, 2,402 (97%) of investment projects financed on favorable conditions were small scaled loans (22,887.8 thousand AZN), 34 (1.4%) were medium scaled loans (8,890.3 thousand AZN) and 41 (1.7%) of them were large-scaled loans (157,652 thousand AZN) (NFES, 2016). NFES has already provided loans to 12,500 enterprises, average of $47,000 USD per each. Most of these loans were addressed to agricultural production. (Ministry of Economy of the Republic of Azerbaijan, 2016). "Azerbaijan Investment Company" (AIC) supports the development of non oil sectors, through substantial capital investments. The AIC's share package ensure that venture capital (entrepreneurship capital) is at least $1 million USD. The AIC's portfolio is multidimensional and combines various industries, such as heavy industry, agriculture, logistics, sub-stocks and food processing. National Fund for Entrepreneurship Support and the ASAN service have partnered to together to solve such issues as limited credit resources of commercial banks, high interest rates as well as lack of skilled and qualified staff through the development of the "ABAD" Centre and Support Services. The ABAD service has targeted to the problems related to finance, infrastructure and skilled workforce. Regarding to interview held with ABAD's director and vice director, ABAD Centre main goals are implementation of projects to support family businesses, small and medium-sized businesses, and establishing a fund for financing these projects.

ABAD is and creating conditions for SME to use modern technological equipment for production of farm products as well as they assist in transportation and sales of produced goods. They also provide trainings so entrepreneurs might use production equipment, provide technical support for these equipment, and information on the most advanced technological innovations used in agriculture. And of course, ABAD provides Monitoring and evaluation of these projects. The areas in which ABAD mostly focused on are agriculture and crafts. Recently there are 215 family businesses involved into ABAD and 715 are waiting for the approval. Among them there are 12 SME's run by handicapped people and 58% of total business owners involved in ABAD are women. The mechanism of project launching in ABAD is quite simple. After on-line registration of business within two months ABAD officials check current status of the business and then provide special trainings to rise the labor qualification. After that entrepreneurs are passing exams and getting certificates that gave them right to produce under the ABAD brand. Special equipment is brought and placed right at SME premises, kind of Hi-Tech container with all needed equipment inside for full production process. And after the products are ready ABAD assist SME's to transport it and sell. They have their own ABAD shops and besides contract with one of the biggest market chains in Azerbaijan - Bravo (interview with ABAD director and vice director Rufat Elchiyev and Ulvi Badalov). AZPROMO is the leading agency which is responsible for the promotion of international trade opportunities for local businesses, including SMEs. AZPROMO was established by the Ministry of Economy with an annual budget of approximately 1 million EUR and offers all services free of charge. AZPROMO allocates funds for SMEs to participate in international sales fairs and help them to proceed import and export operations. In 2015, AZPROMO established the Exporter Club, whose main function is to support manufacturers in exporting Azerbaijani products to foreign markets. However, according to those SMEs surveyed by the OECD in 2015, most of them were aware of these government programs for encouraging companies to export. State Service for Agricultural Projects and Credit Management under the Ministry of Agriculture of the Republic of Azerbaijan: Using loans provided by the State Service at a rate of 2% annually, authorized banks can allocate loans to entrepreneurs and farmers on preferential terms, without applying an additional interest rate of more than 5 percent. As a result, participating SMEs are able to receive interest rates of 7% or lower in local currency. State Fund for Development of Information Technology under the Ministry of Communications and Information Technologies of the Republic of Azerbaijan: The Fund is financing start-ups with high technology, with a total allocation of up to 300,000 AZN

2.10. SME in Georgia context

Within the last ten years, Georgia has carried out radical and comprehensive economic reforms, which have affected onto a micro and macro levels of country's economy. The main goal of those reforms was the creation of favorable business climate in the country both for Foreign Direct Investment sector, as well as for Small and Medium Enterprises sector. This was achieved via wide economy liberalization, including war with corruption and reduction of taxes. Two main documents supporting this economic policy are - “Socio-Economic Development Strategy of Georgia – Georgia 2020” (2014) and Governmental Program “For a Strong, Democratic and United Georgia” (2014) . The importance of the strong private sector is underlined in both of these documents. The results of such policy making are quite impressive - Georgia have been recognized as the top improver country by the WB/IFC Doing Business (2015) and one of the best places for doing business in the post-Soviet space. However, SME sector contribution to GDP is still not high enough.

3. STATISTIC OVERVIEW

Definition of a Small and Medium Enterprises in Georgia differs from one institution to another, and that makes analysis and compilation of SMEs statistics in Georgia quite complicated task. Georgia National Statistics Office classifies enterprises as small- or medium-sized if the number of employees does not exceed 100 and the average annual turnover is up to 1.5 million GEL. Small business status also might be granted with a purpose of taxation to individuals, whose gross income from different economic activities does not exceed 100,000 GEL during a calendar year. So, there are two official definitions of SMEs, one of them has been set by the Law on Georgian National Investment Agency and another definition has been set by the Tax Code of Georgia. The Tax Code divides all SMEs to micro and small enterprises owned and/or operated as self-employed enterprises.

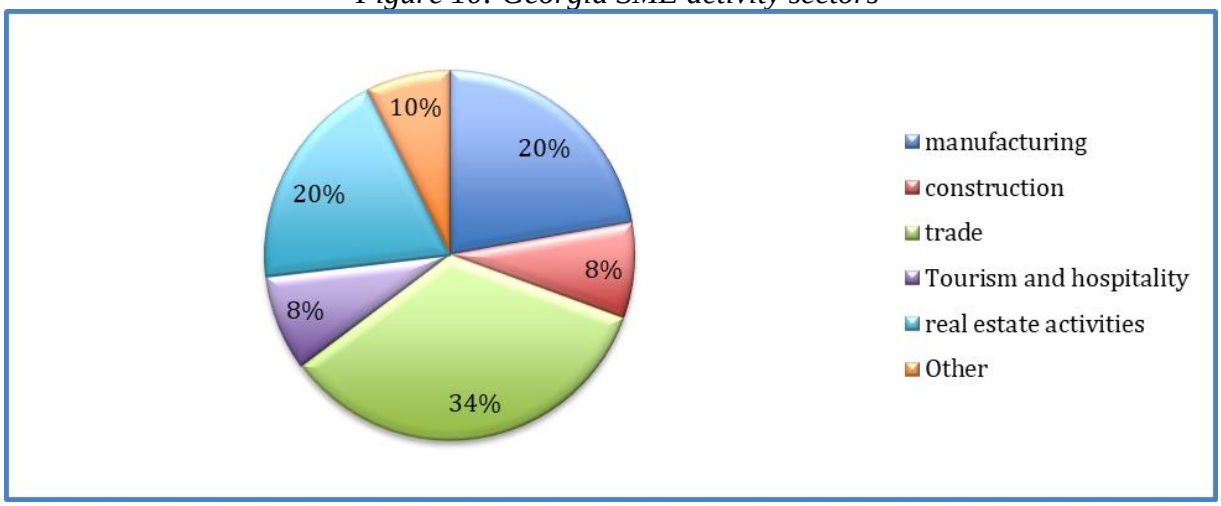
Table 5: Criteria of SMEs determination in Georgia

Size/Criteria	Employment		Turnover	
	Definition 1	Definition 2 *tax purposes only	Definition 1	Definition 2*tax purposes only
Micro		Self employed (no hired labor)		<30 000 GEL
Small	<20 employees	Self employed (no hired labor)	<500 000 GEL	<100 000 GEL
Medium	<100 employees		<1 500 000 GEL	

Source: Law of Georgia No. 519 of 12 June 2012, on the Georgian National Investment Agency; Tax Code of Georgia

Today, SMEs make a significant contribution to Georgia's economy, making up 94,1% of enterprises, 42,7% of employment and 20,6% of value added in 2013 (OECD/European Union/EBRD/ETF, 2015). Their main advantage is that SMEs are more flexible and adapt quickly to changing conditions of the market economy. If discussing SME activity sectors, in 2006-2014, overall business turnover increased by 3.4- fold and number of employees increased from 361.000 to 592 147. The largest share in total turnover by economic activities (in 2017) was in trade (34%), manufacturing (22%) real estate activities (20%), while the volume of output was highest in manufacturing (31.5%) followed by trade (17.1%) construction (15.7%) and transport and communication (13.8%).

Figure 10: Georgia SME activity sectors



Source: European Investment Bank, 2017

There are several factors that makes doing business in Georgia much easier than it was before.

First of all we need to mention tax policy reforms, number of taxes and tax rates were significantly deducted and right now Georgia has very liberal tax jurisdiction in the region. In accordance with Forbes' Tax Misery and Reform Index 2009 Georgia had the 4th lowest tax burden country globally after Qatar, Hong Kong. and UAE. Currently, Georgia has 6 flat taxes compared with the 21existing there in 2004. Small businesses have been taxed either 3% or 5% of their taxable income. Micro businesses are exempted from income tax. Reforms in the customs policy also very simplified and reduced foreign trade costs because import tariffs were eliminated for approximately 85% of all traded products. Custom taxes exist only on several kinds of agricultural and construction products. Besides, Georgia is not applying non-tariff barriers which are import and export quotas, and number of licenses and permits also was reduced approximately by 90%. And this simplifies Georgian Business Internationalization a lot. (Source: Law on the Georgian National Investment Agency 4 and Tax Code of Georgia)

3.1. Institutional Support

Ministry of Economy and Sustainable Development in Georgia has established the Entrepreneurship Development Agency (Enterprise Georgia) and the Innovation and Technology Agency (GITA) in February 2014 in order to promote SMEs emergence, development and growth of their competitiveness via innovative approaches. Enterprise Georgia is providing SME aid programs, like supporting start-ups; facilitating modern entrepreneurial culture; supporting diversification of export of goods and services, etc. Nad GITA is a main coordinator in the process of creating innovative ecosystem, stimulating R&D and modern technologies and supporting innovative start-ups and their competitiveness growth. Besides, Georgia has Institutions working with SME sector, like Georgian Chamber of Commerce and Industry, Georgian Employers' Association and Georgian Small and Medium enterprises Association. (SME Development Strategy of Georgia 2016-2020)

Figure following on the next page

Figure 11: SWAT analysis of Georgia SME

Strengths
- Favorable business environment
- Easy procedures for starting a business
- Advisory and consultancy services for SMEs
- Corruption free government
- Low tax burden and preferential tax regime for micro and small businesses
- Easy and low cost access to regional and international markets
- Well-developed infrastructure
- Existence of SMEs supportive institutions
- Governmental programs for SMEs promotion

Weaknesses
- Lack of business skills
- Low level of competitiveness
- Low productivity
- Limited access to finance in long-term
- insufficient collaboration between public R&D institutions and SMEs
- Limited capacities for technology absorption Insufficient level of human resources
- Lack of knowledge on foreign markets
- Low capacity for export and internationalization
- High cost for consultancy services for SMEs
- Difficulties in closing business

Opportunities
- Increased access to finance
- Developing opportunities for export Well-developed quality infrastructure
- decreasing technical barriers to trade
- Diversification of production
- internationalization of SMEs
- Well-developed advisory and consulting services
- Increased innovation capacities and technology absorption potential
- Establishment of modern entrepreneurial culture

Threats
- Possible external economic factors (like financial crisis, or decrease of demand on international markets, etc.)
- Possible downturn of economy
- Political uncertainty
- Low investment in SME sector
- Insufficient export capabilities
- Low capabilities of SMEs in terms of international competition
- Insufficient knowledge of export market requirements

Figure 12: % MSMEs citied the reason as the most important obstacle to business growth

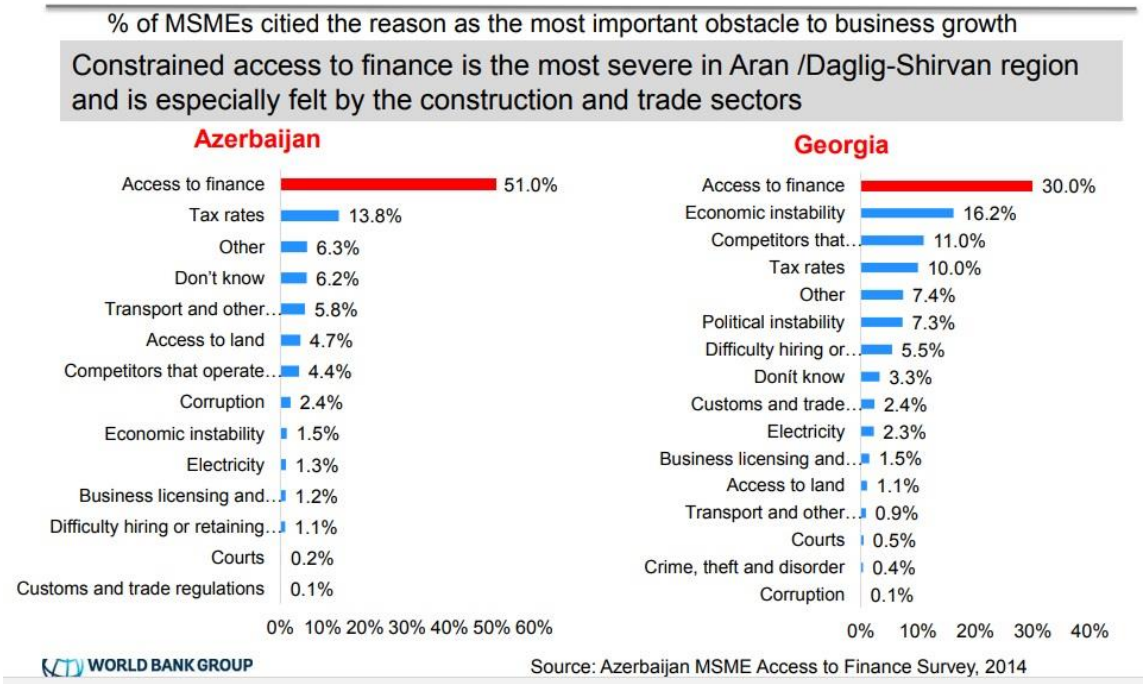


Figure 13: SBA Score Georgia

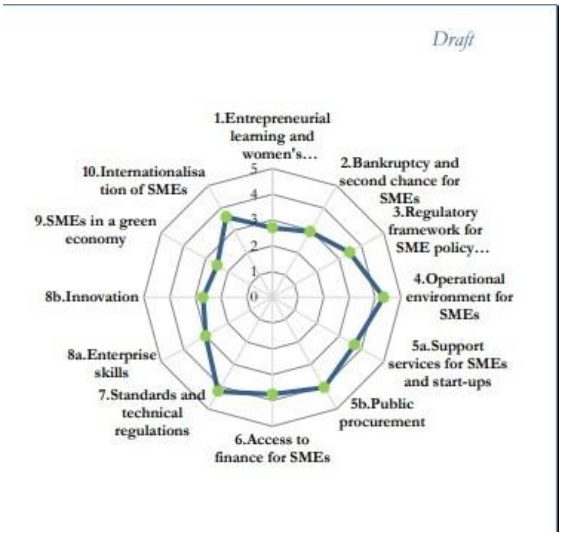
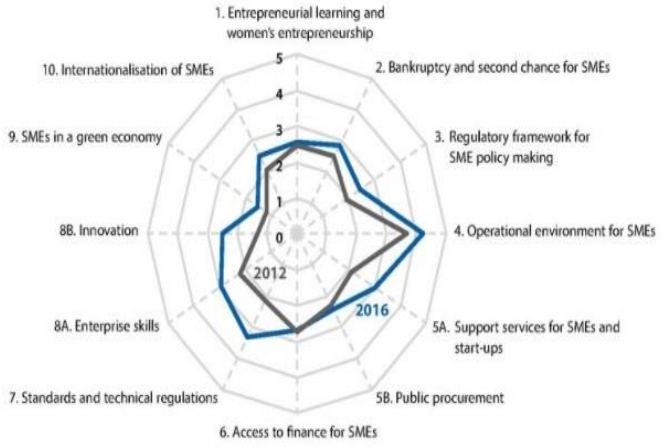


Figure 14: SBA Score Azerbaijan



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USE OF FINANCIAL INSTRUMENTS TO SUPPORT FOREST ECOSYSTEM SERVICES

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ABSTRACT

Forests are an important part of the environment, but they are also a source of economic benefits. The society puts great demands on forests as an important environmental element. This create strong pressure from the public for comprehensive fulfilment of all, wood production and non- wood production functions. However, sufficient sources of funding need to be found to ensure their realization. There is a large-scale of policy tools to support sustainable forest management, like technical assistance, outreach education, financial incentives, and regulations. Among these policies and programs, financial incentives, particularly tax incentives, hold a significant position. The paper presents the possibilities of application tax allowances as an additional source of funding for the ecosystem services. In the example of Slovak Republic, the main advantages and disadvantages of applying the analysed forest policy tool are approached. Application of the tax exemption from forest land tax on certain types of forest stands increases the resources available for forest enterprises. Then they can be used for financing the forest ecosystem services.

Keywords: *financial instruments, forest ecosystem services, forest land tax, support*

1. INTRODUCTION

Forests are a significant part of the environment; they are also a source of economic benefits. They fulfil important ecological, economic and social functions. They are a source of wood, which is currently the most important source of renewable energy. The use of the forest and its functions changed during the development of human society. Forestry has been influenced by the demand for wood production for a long time. Accordance with both the EU and the SR strategy, in relation to forestry, one of the basic objectives is to promote a functionally integrated use of forest functions in its entirety. The importance of securing all forest functions is also declared by the EU in its new forestry strategy: A new EU Forest Strategy: for forests and the forest-based sector. It is a policy framework that coordinates and ensures coherence of forest-related policies and allows synergies with other sectors that influence forest management. According to this strategy, the objective of the forestry by 2020 should be to improve the balance between the different functions of the forest, to ensure the provision of ecosystem services, and to create the conditions for forestry to become a competitive and viable contributor of bioeconomy. Forests and their functions should be understood as a natural wealth and must be preserved and, if possible, improved by appropriate management. However, the society must take care to ensure a socially acceptable rate of profit for forest landowners, given the fact, that the owner provides important services for the arrangement of the adequate forest structure.

As a significant problem limiting the effective application of a multifunctional forestry system, there is often a discrepancy between the social order and its economic cover. While a social order for wood production is a market-driven economy, the social order for the use of other functions (especially non-market character) is not economically sufficiently secured even in unambiguous cases of orders such as protection forests and forests of special designation. To cover the social order for the use of non-market functions, the system of subsidies, compensation for damages, tax exemption, (Čaboun et al., 2010). Payment for ecosystem services schemes (PES), where the providers of environmental services receive payments for the adoption of land uses and practices that support those services, are relatively recent. There is strong interest in PES schemes, because of their potential to mobilize new resources for conservation and achieve development outcomes. This interest has increased with recent discussions under the United Nations Framework Convention on Climate Change on a mechanism for Reduced Emissions from Deforestation and Forest Degradation (Tacconi, et al., 2011). Payments for ecosystem services have received much praise and are increasingly perceived as a promising tool to ensure the protection of global ecosystems as well as being able to help alleviate poverty in areas rich in ecosystem services. Given current trends, the scale of payments is likely to grow, creating new circumstances within which ecosystem services will be managed (Kronenberg, Hubacek, 2013). The goal of the paper is to analyse possibilities of financing forest ecosystem services (FES) using economic public policy instrument – tax allowance. The result is identification of advantages and disadvantages of using the analysed tool.

2. MATERIAL AND METHODS

Document analysis was used to analyse the current situation in FES support in Slovakia. We analysed public policy documents as legislation and strategic documents and have made an overview of existing financial instruments. According to Papanek (1978), multifunctional forestry (or functionally integrated forestry) can be defined as an optimal combination of the various forest functions (commercial, protective and special purposes) into the harmonious system of its management. It has five characters (Konopka, Konopka, 2003):

1. In determining the forest management objectives, consideration is given to all the functions of the forest that result from natural conditions and from the interest of society (the principle of universality of forest functions) in given local conditions.
2. All forest functions are expressed and measured both in technical units and in monetary indicators, and are thus considered together, regardless of whether they earn income or only merit through the fulfilment of these forest functions (the principle of equivalence of forest functions).
3. Seek and explore different ways to use forest functions and explore their economic impact on the provision of benefits, costs, labour, mechanisms, investments, etc. (the forest function analysis principle).
4. The option of exploiting the functions of the forest is the one that gives the best results to the smallest victims, thus requiring and harmonizing each other's forest functions in optimal proportions (the principle of optimizing forest functions).
5. Integration of forest functions is reflected in forest management plans and forestry so that a functionally integrated forest management is a practical fulfilment of the theoretical concept of forest management in optimal proportions (the principle of implementing forest functions).

There is no formal market environment for many of the functions that forests provide to community. There is no uniform system of payment for services, such as recreational and health care, water, shelter, anti-erosion or carbon sequestration.

State interventions in the form of support mechanisms are therefore necessary (Hyde, et al., 1987, Sterbova, Salka, Sarvasova, 2018) The range of economic instruments potentially usable to support the development of non-woodproduction forest functions is relatively broad. The problem of their wide-ranging application within the EU is currently an absence of coherent forest policy at this level. Forestry is an area where policy-making and initiatives are left at national level. The EU is aware of the risks and shortcomings of the current situation in this area and therefore calls on the Member States to consider the principles and objectives set out in the current European strategy when drawing up and implementing their action plans and national forest programs. A new EU Forest Strategy: for forests and the forest-based sector (COM (2013) 0659) was agreed in September 2013. It represents the basic conceptual framework that should be taken into account in the formulation of national policies and strategies. It is based on fundamental principles such as: Sustainable forest management and the multifunctional role of forests, delivering multiple goods and services in a balanced way and ensuring forest protection, resource efficiency and the EU's global responsibility for forestry. Part of the document is the definition of economic instruments that should be used within national policies to support the achievement of the targets. Command and control is the traditional instrument applied to regulate behaviour in a certain direction, for instance through the regulations in the New Forest Act or the restrictions on activities in the forest management plans, restrictions on access and land use in order to reach conservation objectives in National Parks and Nature Reserves or on non-conserved land to preserve a certain level of biodiversity. The challenge for command and control regulation is the high level of information needed about private land owners along with costs of administration to ensure that policy instruments are efficient. Compared with command and control measures, economic incentives have the potential to deliver more cost-efficient implementation of enhancement or protection of ecosystem services. The reason for this is a higher flexibility under economic incentives for the land owners to determine the intensity and type of activity that is optimal given the taxes, charges or conditional contracts (Zandersen et al., 2012). The challenge for developing countries and transitional economies is to identify and adopt instruments that integrate environmental and economic policy and that are parsimonious in their use of scarce development and management resources; instruments that allow differential response by economic units and adjust flexibly to changing circumstances. The search for instruments of environmental management in developing countries and transitional economies is a search for instruments of sustainable development. Economic instruments meet most of these conditions and are uniquely suited for the integration of environmental and economic policy and can be designed to advance sustainable development (Panaiotov, 1994).

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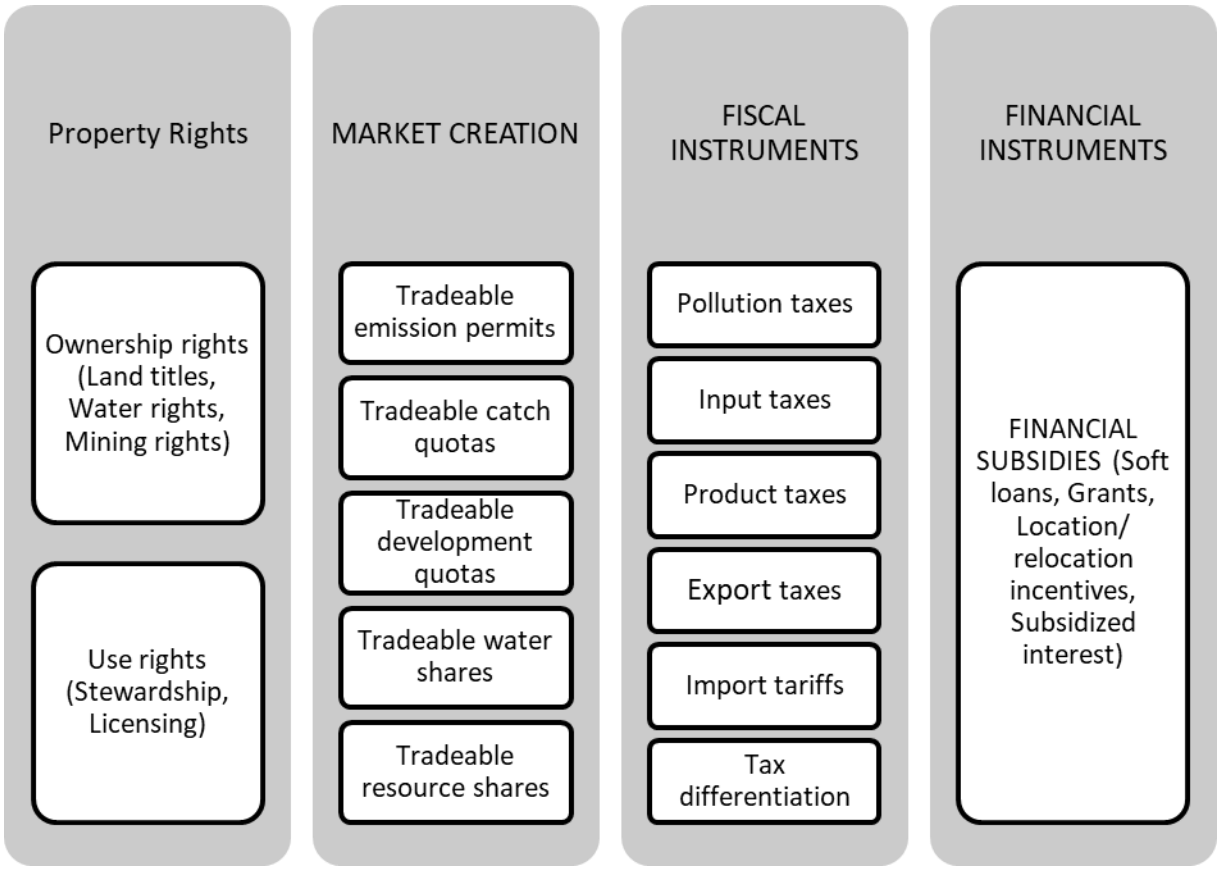


Figure 1: Economic Instruments (Panaiotov, 1994)

2.1. Forest Land Tax

Land Tax is a part of real estate tax. It is governed by Act No. 582/2004 Coll., on local taxes and on local fee for communal waste and small construction waste as amended. Real estate tax comprises land, buildings and flats (apartments). This tax is paid annually by the owner of the real estate. Paid tax amount does not reflect real estate market value, but its size in square meters and related tax rate (mostly depending on use and location). Local self-government has in the field of real estate property powers of tax office. Municipal authorities are allowed to increase or decrease the annual tax rates depending on land location, nature and purpose of the land or number of floors in the case of buildings; however, they cannot exceed certain limits. Tax declaration concerning new real estate property must be submitted to tax administrator up to 31st January following year when new property had been acquired (or in a case of any change - changed in use e.g. form residential to commercial, change in size etc.). If there are no changes in real estate ownership subject does not need to submit real estate tax declaration in the following years. Real estate property will be taxed according to previous tax declaration. Calculation of payable tax amount is responsibility of local self-government. Real estate owner is informed about this sum in letter, stating also possible form of payment (bank voucher, bank account number, cash at local self-government cash desk, time for payment etc.). As a rule, a tax liability is payable within 15 days after a tax assessment became valid. • If the taxpayer finds out that the data in a filed tax return based on which the tax liability is calculated is incorrect, then he is obliged to file an amended tax return no later than four years after the end of the year in which the obligation to file a tax return or a partial tax return arose. As a rule, the land's registered owner pays the land tax. In certain cases, it is paid by the land manager or the lessee. The tax base is the value of the forest land determined as the value stated in the municipality's general binding regulation or on the basis of a surveyor's report composed according to special regulations (Act No. 382/2004 Coll. on Experts, Interpreters and

Translators and on amendments and supplements to certain acts as amended and the Decree of the Ministry of Justice no. 492/2004 laying down the general value of the enterprise). The basic annual tax rate on forest land is 0.25% of the tax base. The municipality may decrease or increase this tax rate (the minimum may be zero, maximum decuple of the base rate, by other land types only 5-fold).

3. RESULTS

Directly Act no. 528/2004 on local taxes and charges, as amended, defines only forest land on which commercial forests are located (stands listed in the forest management plan as production forests) as the tax subject. Their main purpose is the production of wood and other forest products along with ensuring other (non-productive) functions. In addition to the production function, other forest functions usually play non dominant roles, but their importance does not go beyond the main function. Unlike production forests, protective forests and special purpose forests perform primarily other than an economic function. Their purpose is to meet the specific needs of the community, such as recreational function, water protection or hunting function, and so on. Protective forests are being declared on extraordinarily unfavourable sites, in high mountainous locations, in the zone of dwarf pine for securing soil protection and others. The main purpose of farming in these landscapes is never the production of woody raw materials, but always ensuring the permanent fulfilment of the protective function. The Act directly exempts another group of forest land from tax. These are, in particular, land owned by the state, municipalities, and other state and public administration institutions (schools, hospitals…). The potential tax savings are approximated by an example of a University Forest Enterprise. University Forest Enterprise (VŠLP) is a specialized organisational part of the Technical University in Zvolen. The VŠLP covers variable natural conditions in the attitude range of 250 to 1 250 m a. s. l. At relatively small area there are different communities of fauna and flora (from thermophile communities, through the communities of nutrient sites to the elements of the mountain flora). The forest communities are integrated into 5 vegetation altitude zones (from oak to fir-beech). VŠLP manages the forests of the area 9 535,97 ha. This area is comprised of state forests (9 065 ha), forests of the TU (only 27 ha) and the rest is rented from private owners. 78% from the total area are incorporated into forests of several specifications, 13% are protection forests and only 9% are commercial. The diversity of ecological conditions of forest communities managed by VŠLP is a good base for compilation and evaluation model for tax relief analysis as a tool to support non-forest production functions. Table 1 approaches the estimated level of tax liability of VŠLP according to individual cadastral territories and forestry units. The tax rate between 2015 and 2017 was not changed in the analysed areas, nor was there a change in the value of the land (determined by the ROG or the expert opinion). Expected tax liability (without tax exemption) represents in the company € 45,746.59. In the case of economic forests, the company does not pay the tax because of the low tax level, which does not reach the established minimum rate of tax in one municipality. Thus, the company earns an average of € 4.80 per hectare per year in the form of a reduction in financial costs for taxes and levies. The undisputed advantage of such support is also the administrative difficulty, where it is sufficient to obtain a relief from presenting the current Forest Management Plan.

Table following on the next page

Table 1: Calculation of potential tax liability (own results)

CADASTRAL TERITORY	FOREST ENTITY	M^2 - CT	EUR/M^2	RATE	EUR/TOTALLY	TAX
BACÚROV	Zvolen, Dobrá Niva	762 412	0,1500 €	0,48%	114 361,80 €	548,94 €
BADÍN	VŠLP Budča I	1 601 240	0,1686 €	0,50%	269 969,06 €	1 349,85 €
BREZINY	Zvolen, Dobrá Niva II	34 813	0,0400 €	0,35%	1 392,52 €	4,87 €
BUDČA	VŠLP Budča II	90 626	0,1800 €	0,40%	16 312,68 €	65,25 €
BUDČA	VŠLP Budča I	6 413 102	0,1800 €	0,40%	1 154 358,36 €	4 617,43 €
BUDIČKA	VŠLP Budča II	454 203	0,1659 €	0,30%	75 352,28 €	226,06 €
DOBRÁ NIVA	Zvolen, Dobrá Niva II	224 383	0,1659 €	0,50%	37 225,14 €	186,13 €
DUBOVÉ	Zvolen, Dobrá Niva	3 073 186	0,0956 €	0,35%	293 796,58 €	1 028,29 €
HÁJNIKY	VŠLP Budča II	94	0,0800 €	0,45%	7,52 €	0,03 €
HÁJNIKY	VŠLP Budča I	819 460	0,0800 €	0,45%	65 556,80 €	295,01 €
HRONSKÁ DÚBRAVA	VŠLP Budča I	2 472 011	0,0864 €	1,00%	213 581,75 €	2 135,82 €
KAŠOVA LEHÔTKA	VŠLP Budča II	394 134	0,1659 €	0,30%	65 386,83 €	196,16 €
KĽAČANY	VŠLP Budča I	38 663	0,0995 €	0,30%	3 846,97 €	11,54 €
KOVÁČOVÁ	VŠLP Budča I	3 457 755	0,0864 €	0,50%	298 750,03 €	1 493,75 €
KRÁĽOVÁ	Zvolen, Dobrá Niva	6 114 032	0,0664 €	0,40%	405 971,72 €	1 623,89 €
KRÁĽOVÁ	Zvolen, Dobrá Niva II	903 683	0,0664 €	0,40%	60 004,55 €	240,02 €
KREMNICA	VŠLP Budča I	323 901	0,1290 €	0,70%	41 783,23 €	292,48 €
LUKAVICA	VŠLP Budča II	176 834	0,0640 €	0,50%	11 317,38 €	56,59 €
MÔŤOVÁ	Zvolen, Dobrá Niva	20 517 561	0,0664 €	0,40%	1 362 366,05 €	5 449,46 €
MÔŤOVÁ	Zvolen, Dobrá Niva II	188 326	0,0664 €	0,40%	12 504,85 €	50,02 €
OSTRÁ LÚKA	Zvolen, Dobrá Niva	5 163 189	0,0864 €	0,50%	446 099,53 €	2 230,50 €
OSTRÁ LÚKA	Zvolen, Dobrá Niva II	196 056	0,0864 €	0,50%	16 939,24 €	84,70 €
PODZÁMČOK	Zvolen, Dobrá Niva	4 210 936	0,1328 €	0,45%	559 212,30 €	2 516,46 €
PODZÁMČOK	Zvolen, Dobrá Niva II	111 232	0,1328 €	0,45%	14 771,61 €	66,47 €
RYBÁRE	VŠLP Budča I	470 161	0,0800 €	0,45%	37 612,88 €	169,26 €
SAMPOR	VŠLP Budča II	14 555	0,0600 €	0,45%	873,30 €	3,93 €
SEBEDÍN	VŠLP Budča II	80 634	0,0948 €	1,25%	7 644,10 €	95,55 €
SLATINKA	Zvolen, Dobrá Niva	8 742 144	0,2000 €	0,35%	1 748 428,80 €	6 119,50 €
SLATINKA	Zvolen, Dobrá Niva II	24 646	0,2000 €	0,35%	4 929,20 €	17,25 €
TRNAVÁ HORA	VŠLP Budča I	2 045 597	0,0500 €	1,25%	102 279,85 €	1 278,50 €
TŔNIE	VŠLP Budča II	1 478 730	0,1659 €	0,30%	245 321,31 €	735,96 €
TŔNIE	VŠLP Budča I	3 533 553	0,1659 €	0,30%	586 216,44 €	1 758,65 €
TUROVÁ	VŠLP Budča II	160 489	0,2540 €	1,00%	40 764,21 €	407,64 €
TUROVÁ	VŠLP Budča I	1 217 557	0,2540 €	1,00%	309 259,48 €	3 092,59 €
VÍGĽAŠSKÁ HUTA - KALINKA	Zvolen, Dobrá Niva	797	0,1660 €	0,40%	132,30 €	0,53 €
VÍGĽAŠSKÁ HUTA - KALINKA	Zvolen, Dobrá Niva II	257 151	0,1660 €	0,40%	42 687,07 €	170,75 €
ZVOLEN	VŠLP Budča II	7 482	0,0664 €	0,40%	496,80 €	1,99 €
ZVOLEN	Zvolen, Dobrá Niva II	6 657	0,0664 €	0,40%	442,02 €	1,77 €
ZVOLEN	VŠLP Budča I	2 878 867	0,0664 €	0,40%	191 156,77 €	764,63 €
ZVOLENSKÁ SLATINA	Zvolen, Dobrá Niva	31 827	0,2000 €	0,35%	6 365,40 €	22,28 €
ZVOLENSKÁ SLATINA	Zvolen, Dobrá Niva II	1 704 223	0,2000 €	0,35%	340 844,60 €	1 192,96 €
ŽELEZNÁ BREZNICA	VŠLP Budča I	9 496 571	0,0864 €	0,32%	820 503,73 €	2 625,61 €
						43 229,05 €

4. CONSLUSION

Although the tax land rates are not very high they are significant burden for forest land managers. The forest land owners are obliged to pay taxes even though they have not gained any profit for 30 – 50 years. This kind of support is considered as payment for ecosystem services and helps to overcome market failure. If such support did not exist, forest managers would try to get their increased costs or reduced yields into market prices, especially in wood prices, and thus distort the market. This PES is a state payment (instead of consumers - citizens of the Slovak Republic) directly for non-productive functions of forests, the value of which is according to the economic groups of forest types listed in Annex no. 1 of the Forest Act. The consumer - the citizen of the Slovak Republic - should pay for these non-productive functions of forests. The condition for payment of such compensation is the fulfilment of the prescribed criteria for the crops with cleaned or planted or pasture-grown plantings in close proximity (KICKO, 2017). Provided support for non-productive functions of forests will simultaneously be an incentive payment that encourages the forest manager to ensure that forest measures are taken to adapt forest vegetation created by natural or artificial restoration to climate change. Slovak Republic, as a member of the EU, promote the implementation of a functionally integrated use of forests. Obstruction of this goal is conditioned by sufficient support for forest owners and users, especially provided by the state. There is a whole range of tools, such as subsidies, damages, tax breaks, and so on. Tax measures appear to be an appropriate tool to support the delivery of ecosystem services. In particular, general measures at the level of the law that can be used by each taxpayer once the conditions are met. Analysed forest tax allowances can be included in this category. The advantage is their transparency and the assumption of long-term functioning. However, this support system is inadequate, which is also confirmed by its hectare value. It is therefore important to look for other tools that will remove this shortcoming.

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A CONCEPTUAL MODEL FOR SMART CITY EVALUATION: ATTRIBUTES AND RULES

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ABSTRACT

The evolution of the 'smart city' concept among scholars has been remarkable over the last decades. While the diversity of related descriptive notions (digital, knowledge, intelligent, creative, livable or ubiquitous city) remains, academic papers in steadily growing numbers scrutinize 'smart cities' from various aspects (knowledge management, ICT infrastructure or urban planning). This paper aims at establishing a conceptual model to determine cities' position on the path to becoming a 'smart city.' May we expect that a city with an established high-tech digital library, however, lacking an intelligent public transportation system will reach the level beyond which academics will affix the 'smart city' tag? What happens if some contributing components improve while others remain at their previous levels or even diminish over time? We constituted a knowledge-based model comprising of smart city attributes and rules, taking into account their effect, to be prepared to answer questions like these. First, we defined all the relevant and independent attributes that build up the 'smart city' from the smallest factors, grouped by the three main deterministic dimensions: technology, institutions, and people, as conceptualized by academics (Nam & Pardo, 2011). *Second, in commencing research, we shall define probability levels for these attributes, representing what extent they contribute to their governing factor. We shall use four linguistic variables to describe these fuzzy values. In the final step, we shall implement a deductive reasoning model to facilitate conclusions on the likelihood of reaching the goal: the smart city. We shall also demonstrate the results of the model by investigating actual scenarios from the world of our time. The comprehensive set of substantial and organized contributing factors previously studied by numerous academics, the adequately defined rules, and the deductive reasoning underpin the trustworthiness of our conceptual model.*

Keywords: *Smart cities, expert system, components, attributes*

1. INTRODUCTION

The evolution of the 'smart city' concept among scholars has been remarkable over the last decades. While the diversity of related descriptive notions (digital, knowledge, intelligent, creative, livable or ubiquitous city) remains, academic papers in steadily growing numbers scrutinize 'smart cities' from various aspects (knowledge management, ICT infrastructure or urban planning). Some authors argue that the smart city characterizes a city capable of sustaining social, environmental, economic, and cultural progress. However, scholars agree that one of the components of smartness is related to technology. Furthermore, definitions of the smart city pay particular attention to critical infrastructures and to their principal aim to provide better services to citizens. Besides, it seems clear that the combination, interconnection, and integration of systems and infrastructures are threshold characteristics for a city to be called smart (Gil-Garcia, Pardo, & Nam, 2015). The smart city is an environment where sensors, data, and connections harmonized rules, gives citizens and other actors the possibility of developing applications and solutions able to improve the life of the city (Murgante & Borruso, 2013). Kourtit and Nijkamp argue that "smart cities are based on a promising mix of human capital (e.g., skilled labor force), infrastructural capital (e.g., high-tech communication facilities), social capital (e.g., intense and open network linkages) and entrepreneurial capital (e.g., creative and risk-taking business activities)" (Kourtit & Nijkamp, 2012).

This paper aims at establishing a conceptual model to determine cities' position on the path to becoming a 'smart city.' Ruhlandt concludes that In particular, further research should explore the links between the components of smart city governance and the expected results, that remain mostly vague. Potential insights must be tested for their causal links. With confirmatory statistical research, the few components and subcomponents that demonstrate prevailing similitudes with their generated insights can be further explored. (Ruhlandt, 2018)

2. APPROACH AND METHODS

Expert systems are based on artificial intelligence and are made up of rules and attributes. Facts and heuristics are the knowledge incorporated inside an expert system. The facts are the information body, and the heuristics are methodological indications and good guessing rules that together characterize the decision-making of experts in the field. The method of backward-chaining identifies the needed attributes as subgoals and other rules are examined to conclude values for this subgoal. The results are passed forward, and conclusions are drawn about the primary goal (OXMAN & GERO, 1987). In the first step of our conceptualization, we have identified the most important attributes and aligned them in a goal chaining tree where these attributes have been identified as sub-goals. Scholars have identified numerous factors that make up the smart city concept. These factors or attributes all contribute to some extent to building the smart city. The value of these subgoals is determined by their subordinates that, on the lowest level can be defined by domain experts. We are following the concept of Nam and Pardo who argue that three major dimensions provide the fundaments of the smart city concept, namely the human, the institutional and the technological dimension (Nam & Pardo, 2011). After completing a comprehensive literature review in these fields, we have identified the essential attributes and their subordinates that can be comprehended as goals.

3. TENTATIVE SOLUTION

Scholars have identified the main focus of researches to be on six principal axes of 'smartness' including economy, mobility, environment, people, living and governance (Murgante & Borruso, 2013). In this model, the economy is characterized by employment, the innovative enterprises, universities and research institutes, and infrastructures. Mobility comprises of the public transportation network, park and ride, green travel means, limited traffic areas, cycle paths, bike and car sharing. As for the environment, air quality, the separate collection of waste, the green spaces in the city and quality of water are held crucial. In smart cities, people appreciate education, a high proportion of women working and holding positions within the administration, political participation, voluntary associations, and lively cultural events. For citizens, smart living means culture and welfare, childcare facilities and community libraries, cinemas and hospitals, immigrants and social integration, all with a low criminality rate. The smartness of governance is measured by services no only related to e-government, the but the widespread of green cars, the proportion of recycled waste, energy saving, and adoption of environmental policies for city planning and development. Other authors disseminate differently when they highlight connectivity, mobility, energy grid and water management, urban planning, public safety, environmental sensors, traffic and navigation (William Altman, Intelligence Analyst, CB Insights). Also, the smart city may be subdivided into the land, a geographical area, and the technologies, incorporating all high-quality infrastructures, services, and governance processes. Those above extended with the citizens the people to which all the smart initiatives are addressed and who should gain benefits from the smart city and the local government, that manages the city with the legislation granted by the citizens for choice and decisions about the public space (Renata Paola Dameri, 2012).

3.1. Human dimension

The human factor as part of the smart city concept has been attracting the most attention from researchers in the fields of human relations, cooperation, and knowledge management recently. In this paper, we have identified 'creativity and knowledge' and 'smart communities' as the most relevant governing attribute that contributes directly to the human dimension. As the initiators and the beneficiaries of initiatives are people, in this sense they must be in the center of smart cities (Battarra, Gargiulo, Pappalardo, Boiano, & Oliva, 2016). In the early stages of research on digital and intelligent cities the technological factor was believed to transform and improve cities automatically, but now it is clear that progressive cities must put people and human capital to the first place (Hollands, 2008).

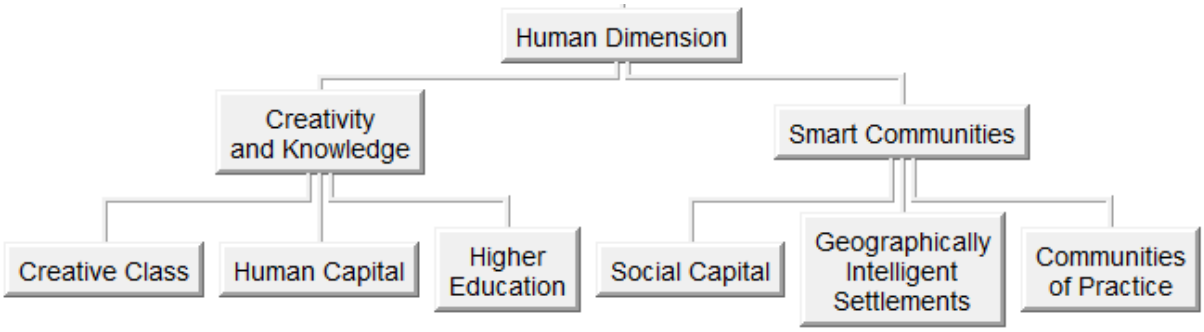


Figure 1: Attributes of the Human dimension (author's elaboration)

3.1.1. Creativity and Knowledge

Most politicians and analysts agree that competition, knowledge, and technology are the primary source of economic growth in the 21st century. Nevertheless, according to Richard Florida, none of these three factors are fundamental drivers of growth: economic growth is ultimately driven by human creativity, and because creativity flourishes best in an urban environment, it is a vibrant city that will be the ultimate driving force for future economic development. Mostly, the majority of writers in the creative city discourse emphasize the social and human dimensions of the city, as much as the technological emphasis at the heart of the smart city. The creativity scheme of Richard Florida is widely represented by the three 't'-s of economic development: tolerance, technology, and talent. Florida extends the concept of creativity more generally to the cultural industries. This so-called 'creative class ' includes authors, innovators, scientists, engineers, consultants, media professionals, authors, architects, designers, musicians, and artists, in short: people who earn their money by creative thinking, design, and production (Florida, 2012). The knowledge and potential of learning found in people are usually described as human or intellectual capital. Research confirms that smart city and intellectual capital views are highly compatible. In order to study smart city from management studies, systematic adoption of intellectual capital approach might be very helpful (Renata P. Dameri & Ricciardi, 2015). The attribute 'human capital' in this conceptional paper focuses on the knowledge, especially tacit that citizens possess and use in their everyday life for the good of the whole city. Evidence also suggests that smart cities grow mainly through the attraction of young people from closer regions and not from more considerable distances like neighboring countries. Therefore, smart cities drain talent from areas without competitive higher-education (Winters, 2011). This fact stresses the importance of quality higher education as a critical attribute in the human dimension.

3.1.2. Smart Communities

Social capital is the relationship between individuals, organizations, networks, and systems. Communities in smart cities form networks and cooperate by a set of standards, rules, values, and expectations which link community members and bridge the divisions that exist in civil society (Halpern, 1999). The combination of the potential of geo-location and social networking with real-time communication enables people to spatially disintegrate their virtual networks and then share real experiences in the virtual world and vice versa. In these hybrid spaces, people can share their successive locations and movements with members of their network through various types of technological solutions and track them in return. They can also increase their geo-communication capacities and enhance common knowledge gained from geographical content generated by friends (Roche, Nabian, Kloeckl, & Ratti, 2013). The importance of communities of practice in the evolution of digital (smart) cities needs to be highlighted at the same time. In the organization of CoP stakeholders from different fields work together to develop a concept that may later turn into strategy and finalize in realization. These organizations are particularly successful because the knowledge is integrated, networked, virtualized and highly-distributed.

3.2. Institutional dimension

Smart governance is the characteristic most needed at the time, in the sense that coordination structures are needed to create synergies (Battarra et al., 2016). The domination of neo-liberal urban spaces is widely recognized worldwide (and indeed accepted), and urban governance in most Western cities has changed subtly from management to business, and towns are shaped increasingly by big business or enterprises. There is also a growing link among urban development driven by business, technology, and the changing role and function of urban governance in the smart city. Smart projects must be linked to a specific initiative, such as: providing quality e-services, achieving results that people see as desirable and building public confidence to use technologies to create public value. (Renata Paola Dameri, 2012)

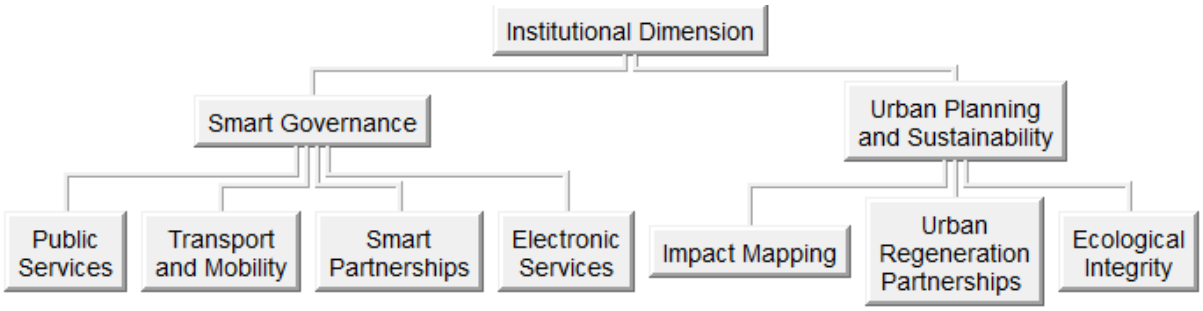


Figure 2: Attributes of the Institutional dimension (author's elaboration)

3.2.1. Smart governance

Smart governance requires local governments to adopt a set of principles to manage and guide the growth of cities and what principles should be applied to internal and external relations between stakeholders. Conventionally, local government has been concerned with how to manage institutions. However, smart governance also seeks to harness the enthusiasm and capacities of residents, rather than to combine their interests following their representatives' capabilities, to represent them directly and precisely. Therefore, the focus of smart governance is on participatory organizational arrangements and democratic institutions (Anttiroiko, Valkama, & Bailey, 2014). Also, the quality of life local governments provide citizens is of great importance that may be characterized through the urban environment (environmental degradation), cost of living, cost of housing, and commuting issues (traffic congestion), school

quality, cultural amenities, and public safety. (Salvesen, 2003) Lower education and healthcare are also of great importance. Smart governance must enable citizens appropriate access to healthcare data for better quality of care, early disease detection, and prevention (Dirks, Gurdgiev, & Keeling, 2010). A further critical factor is the transport and mobility in smart cities. Since local governments maintain the central transport infrastructures (i.e., roads and public transportation systems), it is their primary task to continually improve and thus satisfy citizens and accomplish goals set in strategies developed under partnership and stakeholder involvement programs. The measures, smart authorities carry out may also include real-time traffic data service provided based on data acquired from vehicle counts and other sensors or the deployment of electric vehicle charging stations. Many scholars emphasize the importance of smart partnership (Johnston, 2010), (Lowndes & Squires, 2012). In order to help the decision-makers understand what happens in the communities from the viewpoint of the partners and share decisions with them, participative organizational arrangements can involve conversations between smart city authorities and their local communities. This method can be used to create room for innovation that is socially creative by helping community leaders to emerge, build trust, negotiate services and promote their achievement through collaborative arrangements.

3.2.2. Urban planning and sustainability

Environmental sustainability plays a major role in smart cities. In an environment where resources are scarce, and cities base their development on natural resources and tourism, their use must ensure that the natural heritage is safe and renewable (Caragliu, del Bo, & Nijkamp, 2011). In this sense, urban planning must take sustainability as an inevitable aspect. Another commonly applied tool through the urban planning cycle is 'impact mapping' that is used to monitor the impacts of local government measures carried out. The series of expected impacts subdivided into the impact domains of different field (e.g., mobility, citizen engagement, socio-economic deployment) that list multiple indicators by which the different dimensions of the impact might be measured. It is possible to elaborate on the expected impacts, to enable comparisons between cities and sectors, as well as underpinning the replication of successful smart city technologies by this method (Evans, 2017). Through urban regeneration partnerships, people in the impacted area may be involved in the planning phase. The notion of 'ecological integrity' has become a common approach in the field of sustainable management. It is used to measure the ecological condition of an environment (Andreasen, O'Neill, Noss, & Slosser, 2001). Despite this variety of approaches, there is no multimetric integrated index to measure the degree of environmental change and state of urban environmental integrity. The networked communities, virtual organizations, and managed learning environments together develop ecological integrity. (Tazin Shathy & Reza, 2016)

3.3. Technology dimension

Some researchers conceptualize smart cities by explicitly emphasizing the use of intelligent computing and communication technologies. We believe that ICT is a fundamental dimension of the smart city concept and primarily serves as a means to enable or catalyze processes.

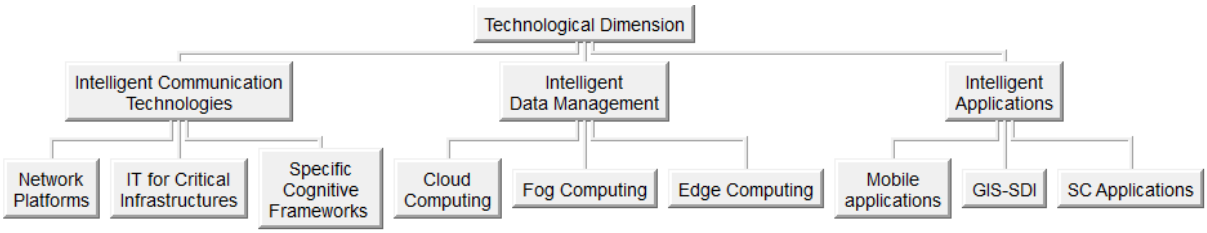


Figure 3: Attributes of the Technology dimension (author's elaboration)

3.3.1. Intelligent communication technologies

The use of networked infrastructures for economic and political efficiency and social, cultural and urban development is one of the critical features that emerge in the smart city literature. While this involves the use of a wide variety of infrastructures, including transport, business, housing and a range of public and private services (including leisure and lifestyle services), ICTs are the main focus of the smart city concept and support all these networks (Hollands, 2008). Technology is the specific dimension that allows the creation of specific cognitive frameworks combining geographic information and communication technologies in order to improve the quality of knowledge, communication and social infrastructure for city planning and management (Murgante & Borruso, 2013).

3.3.2. Intelligent Data Management

Intelligent data management is the enabling technology for citizens, authorities, and services to be ubiquitous in the smart city. Cloud and fog computing both provide end-users with storage, apps, and data. However, the proximity to end users and greater geographical distribution of fog computing is increasing. Edge computing is a method by removing some part, data or service from one or more central node, to another logical extreme of the Internet, connection with physical worlds or end-users, in order to optimize applications or cloud computing systems (Garcia Lopez et al., 2015).

3.3.3. Intelligent Applications

Smartphones are today embedded in an enormous range of sensors and informatics and media. By capturing the physical world data and making the mobile device more context-aware, they reduce the difference between the virtual world and the real world. The exciting part of mobile sensing is that in a given environment these intelligent sensors are always mobile and are attached to an entity like the end user. The universal character of mobile phones provides broad sensing applicability in the city and thus fulfills the first requirement for smart city applications. The majority of mobile applications are accessible by established app dissemination channels like app stores/markets, which currently exist. Moreover, most smartphone platforms are open and programmable, providing a very low entry barrier for developers from third parties (Balakrishna, 2012). The distinction between ‘here’ and ‘here’ and between ‘present,’ ‘past’ and ‘future’ is blurred in the combination of geographical information systems (GIS) and telecommunication networks that provide real-time access to the information on these systems, and for place-based or context-aware social networking. The key feature of smart cities is to eliminate the distance between people and different locations. Also, space-enabled society and smart cities share a lot, and both of them benefit from spatial data infrastructures (SDI) that enable platforms for improved access, space data and services sharing and integration (Roche et al., 2013). Another fundamental part of intelligent applications includes the smart cards that are capable of storing encrypted information and run multiple secure apps in the appropriate hardware environment. For security and data protection reasons local governments insist on the most secure technology available, and unfortunately, this criterium impedes the widespread simultaneously. The smart card features enable the technology to serve as a means of mostly secure identification when the citizen accesses public services.

4. DISCUSSION AND CONCLUSION

Although the attributes discussed before are interconnected and by some extent related, we chose them primarily because they are easy to identify and disseminate and assess their development levels. This line is also the explanation of why the list of attributes is not comprehensive: some factors are so deeply co-related that their representation is neglectable.

Our concept complies with other fundamental smart city models like the triple helix (Leydesdorff & Deakin, 2011), the SMART (Ben Letaifa, 2015), the conjuncture of four forces (Angelidou, 2015) or the report smart cities ranking (Giffinger et al., 2007). The smart city-enabling factors are all present but aligned or grouped by a different logic. Scholars distinguish three main classes of intellectual capital: the human, the organizational (or structural) and relational (or social) capital (Bontis, 1998). Following the approach above, we represented them individually under their governing dimensions. This research shall commence by establishing the rules (if…then relationships) between the governing and child-element attributes. The goal-chaining tree shall be constituted from different disciplines and by taking into account experts' advice. Further studies shall be reviewed on the actual implementation of the smart city strategies (e.g., Brorström, Argento, Grossi, Thomasson, & Almqvist, 2018).

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THE NEW METHODS OF HUMAN RESOURCES IN AZERBAIJAN CASE

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ABSTRACT

The first part of the study presents the contextual and conceptual novelty elements concerning human resources on which this human resource management approach relies. The conceptual novelty element is represented by the comprehensive approach of human resource management (MRU), focused on the relationships of the organization with internal and external human stakeholders, not limiting to the traditional approach, managers subordinates. The second part of the paper makes a selection of methods and techniques used in human resource management, grouped on the 14 activities specific to MRU. This ensures a coherent and effective methodological basis for human resource managers and specialists, in agreement with the challenges of the current period of transition to knowledge-based economy. The last part of the study indicates the methods and the techniques recommended to be used in particular during the eight stages of human resource reengineering.

Keywords: *career development, innovation, human resources, new methods*

1. INTRODUCTION

Successful individual company activity in many ways depends on effective human resource management. In the modern world, the role of human resources and their management is becoming increasingly important. The ability to correctly select qualified, meeting all the stated requirements of staff for their organization is quite a challenge. In this regard, the issue of personnel appraisal becomes even more relevant. There is a need for the availability of objective information, the state and prospects of staff development. What does the notion of "personnel appraisal" mean? Evaluation of personnel — a system of methods for measuring the value of the main human resource. In the economic sense, is characterized by the efficiency of the resource in terms of the objective function (optimality criterion). Thanks to its use, the best use of available resources (labor, production, natural, etc.) is achieved. The objectives of staff evaluation:

1. Administrative goals are based on decision-making by the organization's leadership (promotion or demotion, transfer to another job, etc.) based on the results of staff performance evaluations.
2. The information goal is that all employees, including a guide, have the opportunity to obtain reliable information about the activities of the organization. Open access to information gives you the opportunity to build your own activities, taking into account its improvement, and managers are given the opportunity to make the right decisions.
3. The motivational goal is that human work should be assessed objectively. Motivation plays a big role if an employee sees that his assessment of his work meets his expectations, in the future his efforts and motivation will only increase. Tasks of personnel assessment: organization; feedback organization; staff quality of their work;

Methodological approach in relation to personnel management means the use of certain methods of knowledge and methods of activity aimed at achieving management objectives. General methodological approaches should be defined:

- Consistency;
- Accounting for the long-term perspective of the organization;
- Equal opportunity;
- Integration and team cohesion;
- Employee participation in decision making;
- Team leadership;
- reliance on the professional core of personnel potential;
- Horizontal collaboration;
- Compliance with the balance of accounting managers and staff;
- Legal and social cooperation with the professional committee and the public. Principles of formation of personnel policy:
- Science, the use of all modern scientific developments in this area, which could provide maximum and social effect;
- Complexity, which should cover all areas of personnel activities;
- Systematic, that is, taking into account the interdependence and the relationship of the individual components of this work; the need to take into account both the economic and social effects of both the positive and negative effects of an event on the final result;
- Efficiency, any costs for activities in this area should be returned through the results of operations.

Human resource management as the most important component of management activity is based on the not always declared idea of a person's place in the management of an enterprise. Among the most important principles of personnel management in enterprises and organizations should be mentioned:

- ensuring the interrelation of personnel management functions with the goals and objectives of the enterprise;
- compliance of the personnel management system in the formed structure of the enterprise or organization;
- use of developments and experience in personnel management of advanced domestic and foreign industrial enterprises and corporations.

The personnel management system should contribute to the advancement of the most intelligent and effective workers on the career ladder and in no way contribute to the excessive complexity (and even contradictory) of their official duties. Every employee of an industrial enterprise should be able to clearly compare career aspirations with the achieved results of their production activities. It is believed that among the main tasks of human resource management is the timely development of sound decisions that determine the requirements for the company's personnel potential, i.e. to what labor resources and in what quantity are necessary to achieve the goals set by the owners of the enterprise. The classic tasks of human resource management traditionally are:

1. Resource Planning - Develop a plan for meeting future human resource needs. This process consists of three main stages: assessment of available resources, assessment of future needs for them, development of a program to meet the identified needs.
2. Recruitment - is to create the necessary reserve of candidates for all positions and specialties, from which the organization selects the most suitable employees for it. This stage is largely determined by the results of the first.

3. Selection - evaluation of candidates and the selection of the best from the reserve created during the recruitment. This stage involves the collection of information to determine whether a candidate is eligible for the vacant position for which he is applying.
4. Career guidance and adaptation of employees to the requirements of the company and its divisions, the development of employees' understanding of what the organization expects from it and what kind of work it receives deserved evaluation.
5. Training (and development of training programs) labor skills required for effective work performance.
6. Determination of wages and other remuneration or compensation - the creation of methods for calculating wages and other payments (bonuses, sick pay, maternity leave, etc.).
7. Evaluation of labor activity - the formation of methodologies for evaluating labor activity and bringing it to the employee.
8. Management training, career management - development of programs aimed at developing the skills and improving the efficiency of managerial personnel.
9. Enhance, downgrade, transfer, dismissal - the choice of methods for moving employees to positions with greater or lesser responsibility, developing their professional experience through their work in other positions or areas, as well as procedures for terminating the employment contract.
10. Training and professional development of employees of the organization, career planning, staff motivation [15, 18].

In the light of the ever-growing requirements for the functionality of personnel management facilities, modern personnel systems should meet the requirements of a wide variety of users. Since the personnel system must be integrated, it is quite natural that each task to be solved is linked to the system. In this case, tasks are usually combined through a set of criteria, which can be used as knowledge, skills and requirements, which are determined for a specific position and correlated with employees.

2. CHAPTER 2

The origins of human resources management lie in the second half of the XIX century and are associated with the development of personnel management. The development of these disciplines contributed to the activities of the movement for the improvement of working conditions of industrial workers. For a relatively considerable period of existence of HRM, the most effective methods have been formed, which are successfully used in foreign and Russian organizations. HRM methods are divided into 3 main groups:

- Administrative
- Economic
- Socio-psychological

Consider these groups separately. The group of administrative management methods is characterized by a centralized impact on personnel. These methods involve behavioral motives: responsibility, discipline, a sense of duty, the desire to follow corporate culture and loyalty to the company. Administrative management methods, in turn, are divided into 3 types:

- methods of organizational impact regulated by the regulatory documentation within the framework of this enterprise: recommendations, instructions, labor regulation, etc .;
- organizational stabilization methods - these include federal laws and other regulatory acts with the status of state, including standards;
- disciplinary methods - the deterrent effect of negative incentives: penalties, fines, threats of dismissal; administrative methods regulated by operational management documents: orders, orders.

- Administrative methods include career advancement of employees within the company. The opportunity for career growth strongly binds the employee and the employer. The company provides the employee with the conditions for development, to achieve results. The employee has the motivation to work more efficiently, responsibly, constantly develop, undergo training. Due to the implementation of the practice of career growth within the company, both parties win - both the employer and the employee. Motivating the employee that good work is encouraged not only by bonuses, but also by promotion, the employee will try to act with greater observance of the rules and standards. [7,24]

This is certainly very good for the employer, who, in turn, in response to the employee gives him the promotion he deserves. Thus, the company maintains a hierarchy of levels, while preserving valuable frames. This method perfectly develops trust relationships between hierarchical levels in an organization, and, moreover, people who take a leadership position know the organization very well from the inside, making it easier to solve production issues, properly communicate management innovations to employees, motivate other people by example and overall raise the level of satisfaction with the company employees. The prospect of career growth from the very beginning of work in the company motivates the employee to work according to the rules established in the company, to be more demanding of their work and to show themselves from the best side. The importance of this method is reflected in the results of a study conducted by CareerBuilder (in 2014 among 3 thousand people), one of the reasons for the dismissal of employees is no career growth. So answered 45% of respondents. The economic methods of personnel management include all options for material stimulation of employees. These methods are divided into 2 groups:

- operating within the enterprise. This is a system of material incentives for labor, participation of employees in the profits and capital of an organization, a system of penalties and incentives for the quality of work and work efficiency.
- nationwide. This includes the tax system, credit and financial mechanisms within individual regions and the entire country.

Economic methods, of course, include the establishment of decent wages. Many managers recognize this method as very important, sometimes almost the only decisive one, but, despite its high efficiency, the role of money in employee motivation should not be overestimated. Not all problems with personnel can be solved with the help of salary increase. Let's understand this method. I think it is difficult to dispute that the high level of earnings that an employer promises attracts a greater number of applicants. Due to the large flow of candidates, the company can choose for itself the most valuable candidates, with excellent knowledge of the theory of their profession, good work experience, having the necessary skills and abilities, or meeting other requirements important to the company. Just a high level of wages allows you to save valuable personnel in the company, which is certainly very important. Quite a few companies lost their valuable employees when the latter were offered higher wages in another organization. The development of employees through the acquisition of practical experience, the passage of theoretical training in their specialty and other methods is usually accompanied by an increase in employee self-esteem and, consequently, an increase in the amount of desired earnings. Socio - psychological methods include all methods that have a psychological and moral impact on the employee, as well as related to social relations in groups. These include: the ability of the manager to exert a motivational influence, effectively manage personnel and show a personal example in the work; the formation of working groups and teams, taking into account the psychological types and characters of the staff to create a creative atmosphere and an optimal psychological climate; involvement of employees in the development of solutions, participation in management; motivating and stimulating benchmarks: objectives and goals of the company,

a sense of ownership; providing opportunities to meet the spiritual and cultural needs, the organization of leisure of workers; support of generally accepted social and ethical standards; providing employee social security — bonuses, benefits, social packages, free meals and extended medical care, mobile communications and travel compensation; creation of a system of incentives and moral sanctions, combining both negative and positive incentives [3,67]. This group of methods includes employee training. Anyone, even the most competent employee in the company, can be taught something new, to develop his skills and abilities. An employee who has returned from training feels that he is not indifferent to the company and comes not only with new knowledge and skills, but also motivated by new achievements. In the process of learning, there is always an awareness of how wide the range of what is worth learning is that it introduces a new interest in life, thereby motivating the employee to new accomplishments. However, managers using such a method should not forget that it brings a positive result only when an employee can use this theoretical knowledge in practice.

3. CHAPTER 3

The theory of personnel management considers various types of personnel policy, including:

- passive personnel policy (the company's management does not have a pronounced program of action in relation to personnel, and personnel work is reduced to accounting functions and eliminating the negative consequences of personnel errors);
- reactive personnel policy (the company's management monitors the symptoms of a negative state in working with personnel, its causes and the situation of the emergence and development of conflict situations, investigates the causes of any personnel problems, etc.);
- preventive personnel policy (management of the company seeks to have reasonable forecasts for the development of conflict situations. In these programs, short-term and medium-term forecasts of personnel requirements, as well as tasks to improve personnel management, are formed in these cases);
- active personnel policy (carried out at enterprises when management wishes to have not only a personnel forecast, but also anti-crisis personnel programs and seeks to monitor situations and adjust the execution of programs in accordance with the parameters of the external and internal situation at the enterprise);
- open personnel policy (when the management of enterprises seeks to make personnel dynamics issues transparent to all employees. Usually, such a policy employs any specialist, if he has the relevant qualifications, without taking into account work experience in related organizations);
- closed personnel policy (used when a company focuses on the inclusion of new personnel from a lower level of office, and the replacement of higher positions comes from the number of employees of the enterprise. Such personnel policy is typical for companies focused on creating a certain corporate atmosphere, forming a special spirit of involvement, and also, opportunities to work in conditions of a shortage of human resources).[1,135]

Personnel policy of the enterprise, as a rule, includes:

- development of general principles of personnel policy, determination of priorities of goals;
- planning of the need for labor resources, formation of the structure and state, destination, creation of a reserve, relocation;
- creation and support of a personnel information movement system;
- formulation of the principles of distribution of funds, ensuring an effective system of incentives for labor;
- ensuring the development program, vocational guidance and adaptation of employees, individual promotion planning, professional training and advanced training;

- performance evaluation or analysis of compliance with the personnel policy of the enterprise strategy, identification of problems in personnel work, assessment of personnel potential and other methods for analyzing the effectiveness of personnel activities.

A part of enterprises that have been operating for a long time (in the domestic market this is typical of companies that work closely with foreign partners and foreign representative offices) has a documented idea of the personnel policy of the corporation, personnel processes, events and the order of their implementation. For another part of enterprises, the idea of how to work with staff is more likely at the level of understanding or is under development. Although any enterprise, as a rule, is interested in the fact that personnel policy is carried out thoughtfully. Effective personnel policy management cannot be carried out without an understanding of the essence of the domestic system of management of industry and the economy in the country, as well as the strategic goals and development objectives of a particular enterprise arising from this (see section 1). Without studying these issues, any developed enterprise development strategy will never be adequate to the true, and not the "book" problems of industrial development of any collectives. Unfortunately, very many works on the theory and practice of managing enterprises and enterprise groups are not very suitable for Russian conditions, since the history of Russian management and the system of industrial management in Russia that has developed in it is not at all analogous to Western or Eastern counterparts. Its specifics are so different from those declared in pro-Western, oriented manuals and monographs on industrial management that the use of the recommendations of the latter can hardly allow business leaders to achieve the desired results.

4. CONSLUSION

Developing training programs and improving their qualifications. In order to obtain a result in the form of objective information, you need to literally indicate the objective indicators by which personnel will be evaluated. There is a need to establish a specific set of criteria, showing personnel qualifications. Criteria can identify, as well as similar for all workers, the moments of activity in general, and highlight the features characteristic of each employee. There are four main groups of criteria.

4.1. Staff evaluation criteria

Criteria	Content criteria
Professional	Professional knowledge, abilities, skills, professional experience, qualification, results of work
Business	Responsibility, organization, initiative, efficiency
Moral and psychological	Psychological stability, honesty, ability to self-assessment, justice

Table 1: Staff evaluation criteria

Today, it is assumed that the main asset of any organization lies in people [1,67]. Quality, productivity, profitability, customer satisfaction and the image of a company depends largely on training, coordination and motivation of its staff. For a company to function properly it requires that the persons composing know, willing and able to work properly. Inadequate people management can lead to myriad problems that hinder the performance of an organization:

- Lack of motivation
- undefined responsibilities
- Lack of training / information
- Lack of internal communication

- Non-cooperation
- Lack of coordination
- Conflicts of interest

In the present document provides a summary of some of the methodologies Sinapsys Business Solutions, SL uses in its consulting services to solve such problems. Any change initiative must develop the necessary direction and leadership with a commitment to continuity. Initiate change and create expectations that are not met can cause frustrations and worsen the situation. The implementation should be done professionally and after a proper diagnosis to select the right tools to each individual case (single or combination of several of them) [1,78].

4.1.1. Leadership

Leadership can be defined as the ability of an individual to develop the potential of a team in pursuit of a common interest.

There are different leadership styles (authoritarian, participatory, consultative, ...). Each style may be appropriate to the context and characteristics of employees. The source of leadership may be the charisma, the hierarchical power, the power of knowledge or behavior.

Through education and training, people who have responsibility for others can develop optimal leadership style. A leader does not command it runs, does not impose, but seeks consensus, not divide but unites. Example: In a food business problems were identified by marking their authoritarian style of leadership. In a leadership course were explained leadership styles. Participants were able to assess your leadership style by completing a questionnaire. In addition, each participant learned to evaluate the pros and cons of each style and know how to apply the most appropriate in each circumstance.

4.1.2. Mentoring

The mentoring (mentoring) is a process by which a person (mentor) teaches, advises, and guides to another (the mentee) in their personal and professional development. It is the traditional "sponsorship" that currently is used primarily in high positions in organizations.

Mentoring should not be improvised requires setting goals, planning and monitoring of results. Although there are similarities, mentoring differs from coaching in the mentor must have expertise in the field in which you want to start the mentee, while the coach does not have to have an experience in this field.

Some advantages of mentoring:

- Mentoring is a powerful tool that facilitates the retention and transmission of knowledge in the enterprise
- Increase satisfaction guardian and the ward
- Increase staff retention and commitment of these with the company.

Example: A director of a company in the construction sector, with no time or discipline to study for a master, hired a mentor to learn what I needed from a practical (less formal) and personal assistance. This training helped her improve her leadership style and management techniques are people in your company.

4.1.3. Education Climate Assessment diagnostic technique

Education Climate Assessment diagnostic technique allows for an objective assessment of the degree of satisfaction of people in an organization, understand their needs and expectations at work and their perception of existing problems. There are circumstances that may hinder the effectiveness and objectivity of an evaluation process work climate, including:

- Labor disputes

- job dissatisfaction
- Lack of communication[3,23]

Must be taken into account these conditions, so before starting the survey process may have to be a media campaign upon, to explain what, why and what it intends to carry out this diagnosis. If there is union representation in the enterprise should plan this process with their collaboration and consensus. The evaluation should be completely anonymous and the results published at all levels. The assessment should be followed by an improvement plan aimed at resolving conflicts and problems have been detected. Assessment should be repeated once the improvements made in order to verify their effectiveness and strengthen the process of continuous improvement. Example: In a furniture manufacturing company, is still a problem of lack of motivation, lack of teamwork and internal tensions. The results of a work climate assessment revealed that the main areas of improvement were: to define responsibilities, establish incentive system, improve staff training and development capabilities to offer.

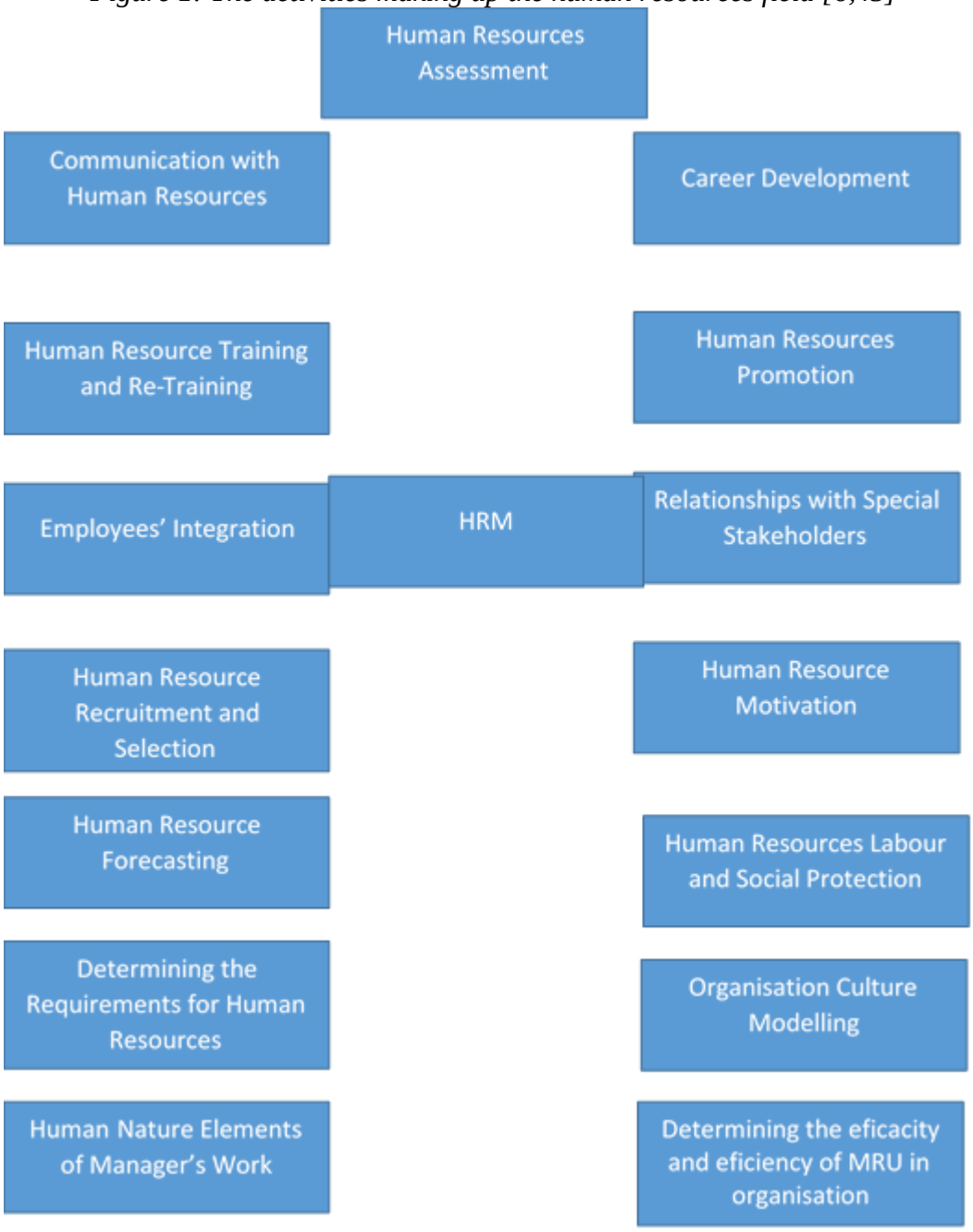
4.1.4. Competence Management / Knowledge Management and Performance Evaluation
This methodology allows to reconcile the interests of the company with the interests of each individual. While comparing the knowledge and skills required by the organization to those who reside in people.

- we define competence as the ability or quality which makes a person is able to play a role, management skills, involves identifying all you need for people to know, willing and able to provide full value for the benefit of the organization.
- skills management, requires:
  - An identification of the skills necessary for achieving the objectives of the organization (strategic, tactical and operational)
  - skills assessment in the Members of the organization
  - A plan to bring existing powers with the necessary
  - setting and monitoring targets both individual and collective performance. These goals should be possible to verify the use of these skills

Example: In a private agency established a competence management system, identified the functions of each position were defined quantitative targets for each position and each department and set up a training plan that took into account the training needs of each person.

Figure following on the next page

Figure 1: The activities making up the human resources field [6,45]



Summarizing all the above, the researchers of this topic emphasize that it is competence that serves as a tool for obtaining economic benefits, i.e. results from the use of knowledge as assets. Since competence requires managing complex, iterative processes of integrating technologies, integrating training in many parts of an organization, repeating it is difficult. Thus, in a globalizing global economy, when developing and implementing a strategy, an organization should be based on increasing the competence of the organization as a whole. and each of his employee. It should be noted that the competence approach as a research, scientific and applied direction is an effective way to create new competitive advantages in both domestic and foreign markets. Successful individual company activity in many ways depends on effective human resource management. In the modern world, the role of human resources and their management is becoming increasingly important. The ability to correctly select qualified, meeting all the stated requirements of staff for their organization is quite a challenge.

In this regard, the issue of personnel appraisal becomes even more relevant. There is a need for the availability of objective information, the state and prospects of staff development. What does the notion of "personnel appraisal" mean? Evaluation of personnel — a system of methods for measuring the value of the main human resource. In the economic sense, is characterized by the efficiency of the resource in terms of the objective function (optimality criterion). Thanks to its use, the best use of available resources (labor, production, natural, etc.) is achieved.

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MAIN CHALLENGES OF TOURISM DEVELOPMENT MANAGEMENT IN GEORGIA

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ABSTRACT

Nowadays the role of tourism is especially important for the restoration and development of Georgian economy. Tourism in Georgia is distinguished by its unique potential and diversity all around the world. However, in spite of this potential it is necessary to renew and improve of the touristic infrastructure permanently, also to promote the development of both the hotel as well as the family guest houses. We believe that it is important to pay attention to such regions where the tourist flows are growing constantly and the supply is overturned by demand. For example: Khevi, Khevsureti, Tusheti, some districts of Kakheti and others. The problem is exacerbated in this and other areas with a nonexistence of three-star budget hotels. It is true that in recent years, the number of hotels is growing, but in most regions they do not meet the international standards. Taking into consideration all the factors, it is difficult to establish an effective management system, especially when it has become a platform of social infrastructure that significantly determines the level of socio-economic development of the country. Nowadays the significance of tourism in Georgia is especially important for the development of economy of the country.

Keywords: *tourism, infrastructure, international standards, Socio-cultural factors, effective management systems*

1. INTRODUCTION

The economy represents a healthy mechanism; the tourism is on the most essential chain of it. Development of tourism implies strong resorts, more workforce, reduction of unemployment, stability of currency, possibilities of economic growth , infrastructural development, investment and what is the most important, it - it raises the country's awareness abroad. Georgia is a country with a high potential of tourism development with unique natural-climatic conditions that allows the country to be attractive, interesting and exciting for the whole year and such conditions can provide the country with more and more tourists. Tourism at the current stage represents the whole industry and it consists of not just individuals, but the whole economy with taking into account its diversified species. Tourism industry combines: transportation of cargo / transportation of travelers, tourist flaws, food production and service facilities, hotels, travel Agencies, sport-recreational events, leisure, entertainment, etc. Tourism is one of the priority fields of the economy of Georgia and its development is in a special interest. In recent years, Georgia has moved from the 72nd to the 31st place among the most demanded countries for tourists and significantly outstripped neighbor states with this indicator.[1]

2. METHODOLOGY

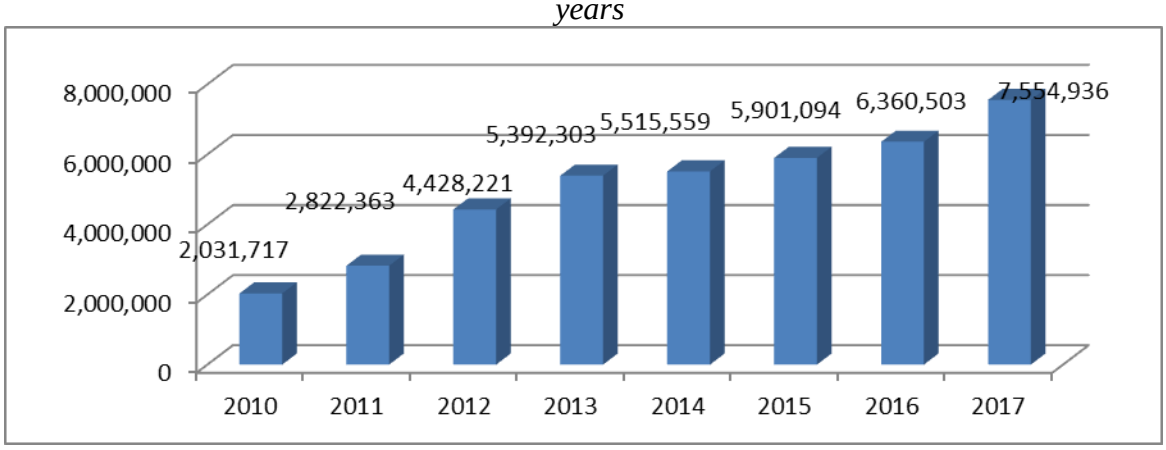
This section provides the methodological tools used, consisting of the analysis of the problem and main challenges, the data and statistics on the basis of the official reports of the country.

[1]http://gnta.ge/ge/public information

2.1. Statistical data and analysis

International experts forecast the great future of tourism in Georgia. According to the analysis of the current potential of tourism, it will be perspective to develop and promote the following kinds of tourism, such as: cultural, medical, resort, adventure, eco, etc. In addition, it is possible to develop the small-scale tourism directions as well, such as: walking and biking tours, agro, youth (traveling of young people in a cognitive, sport and recreational way), extreme, ethnic, nostalgic, etc. With these above-mentioned advantages, the experts emphasize the geographical proximity of the country to the world's main tourist market –Europe. Years 2010-2017 - The number of foreign visitors arriving directly at the border of Georgia is as follows (see Figure 1).

Figure 1[2]: The number of foreign visitors arriving at the border of Georgia in 2010-2017 years



According to the Figure, the number of foreign visitors in Georgia in 2010-2017 is characterized by the tendency of growth, during which the average annual growth amounted to 789 031 visitors. The main market of international travelers in Georgia is neighbor countries. In 2016, there were represented the 89% of total revenues. More Concretely, Turkey had 27%, Armenia 25%, Azerbaijan 23% and Russia 17%. The origin of visitors has an impact to lots of factors, including:

- Duration of visit;
- Costs, food, shopping amount;
- Activities and visited sightseeing;
- Places visited in Georgia;
- Types of accommodation and tours.

The latest three years of statistics show that most part of international travelers visit Georgia in July and August. Armenia, Azerbaijan and Turkey represent the top three in terms of amount of travelers (see Table 2.). Approximately 76% of international travelers who visit Georgia come from these three countries.

Table following on the next page

[2]Source: Figure is created based on the data of the National Tourism Administration website.

Table 2[3]: Top ten countries according to the international arrivals in Georgia (2016-2017 years)

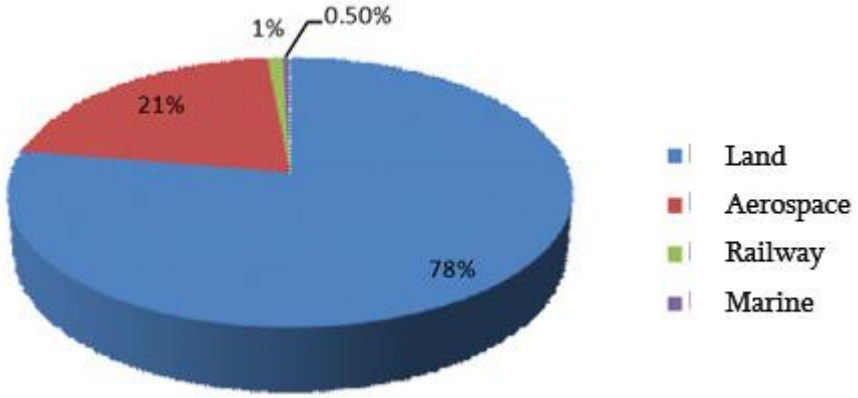
Country	Years		Change (%)
	2016	2017	
Armenia	1 496 437	1 718 016	+14,8
Azerbaijan	1 523 703	1 694 998	+11,2
Russia	1 038 750	1 392 610	+34,1
Turkey	1 256 561	1 246 745	- 0,8
Iran	147 937	322 918	+118,3
The Ukraine	174 858	193 002	+10,4
Israel	92 215	125 319	+35,9
India	34 410	59 732	+64,1
Kazakhstan	48 849	56 765	+16,2
Saudi Arabia	21 257	56 247	+164,6

As it is shown in the Table 2, the number of visitors has decreased by 0,8 percent from Turkey in 2017 compared to 2016, while the same indicator in other countries are: Armenia - 14.8 percent, Azerbaijan - 11.2 percent and Russia - 34.1 percent. Despite the fact that the share of arrivals from other countries in Georgia increases annually, the difference is still quite obvious. We think that this cannot be caused by the distance, but also because of the low awareness of the country all over the world. It is noteworthy that the trend of visitors' growth on the basis of data of 2017 is maintained by the European Union countries. In this regard, we can highlight the UK - 40%, France - 30%, Germany - 29%, Latvia - 21%, Lithuania and Italy - 17-17%. From Central Asian Countries: Kazakhstan - 17%, Uzbekistan - 75%. It is worth to mention that the indicator for US citizens is also growing by 25%.[4] Currently the Adjara coastal region and Tbilisi dominate in the hotel market. There are1058 accommodations in Georgia totally with 37 252 beds. By the number of beds in the first place is Adjara region. 67% of their number comes from hotels. Then there are guest houses (18%) and family hotels (16%). Along with the leap increase of the number of travelers in the recent years in the medium-term perspective the demand on accommodations exceeds the supply, which can become the basis for increasing the number of accommodations in the prospect. The same reason will lead to increase in land prices across the region, predominantly along the seashore.[5] As regards the international incomes in Georgia according to the types of the borders of the country, we have the following percentage: 78% - land road, 20.5% - aerospace, 1% - railway and 0.5% - marine (see Figure 2).

Figure following on the next page

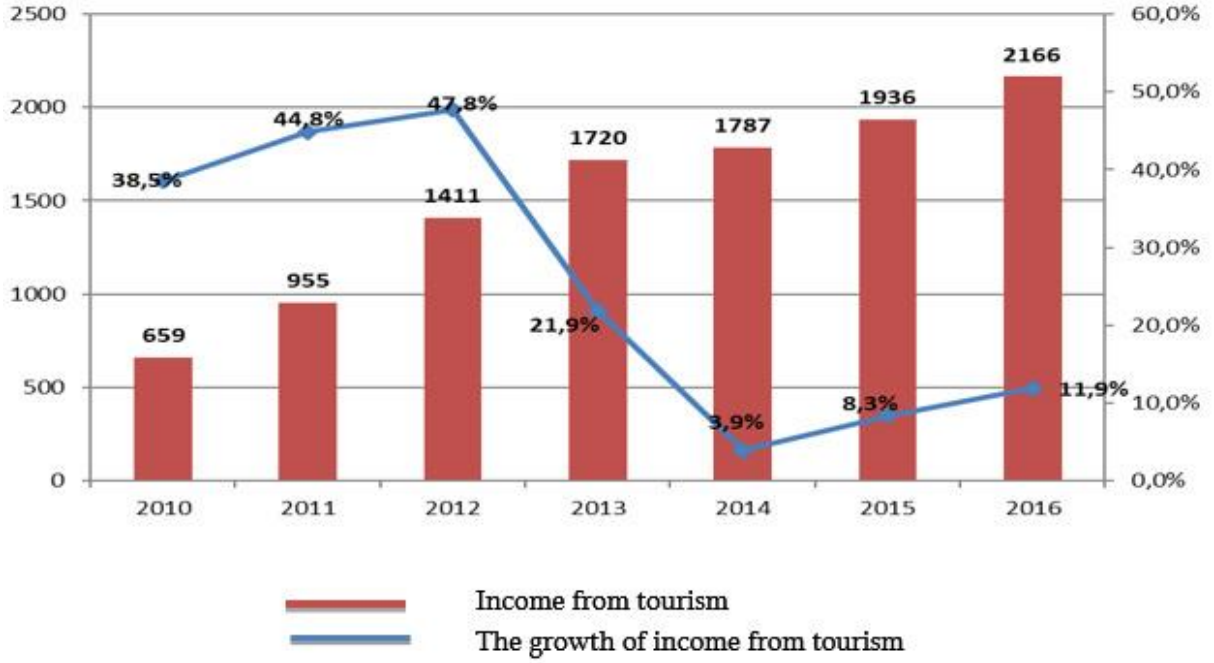
[3]Source: Table is created based on the data of the National Tourism Administration website.
[4]http://reginfo.ge
[5]ХелашвилиИ., "Развитиесредстваразмещенийтуристовистоимостьземель (напримерг.Батуми", Materials I International Scientific and Practical Conference 24-30th October, 2017, pg.53-54

Figure 2[6]: Travelers according to the border types



These data clearly show that there are sectors in Georgia that need more rapid development. This is mainly about air traffic and also, the marine transport is very interesting and prospective. Despite the fact that Kutaisi airport is open at this stage, the share of tourists from the airspace is still low, which is due to the high prices for similar services. According to the data of the National Bank of Georgia, income from tourism in 2017 was 2.8 billion US dollars. According to the National Tourism Administration, in the first two months of the current year, transactions carried out by foreign cards amounted to 219 million Georgian lari which is more than it was in the previous year by 47 million Georgian lari. Besides, since the number of visitors has increased, we can assume that the revenues from tourism have also increased.

Figure 3[7]: Dynamics of revenues from tourism in 2010-2016 years

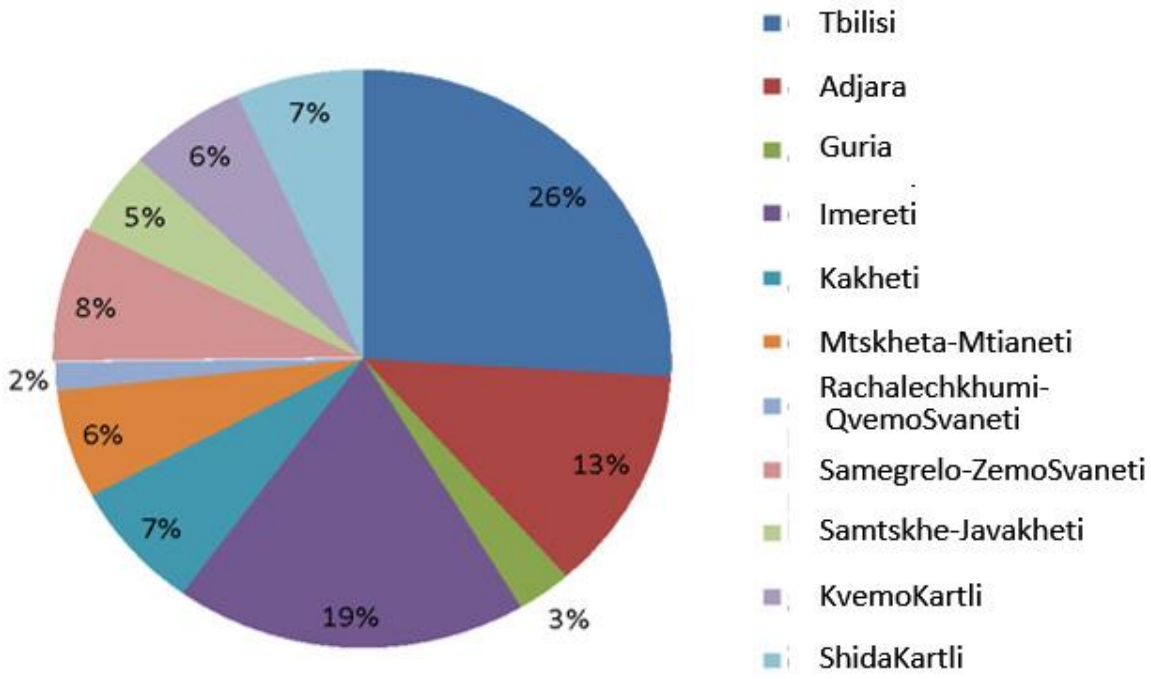


As it is shown in the Figure, with the number of visitors arriving in the country in 2009-2012 years, income from tourism is growing also at a rapid pace. The situation has radically changed since 2012 when the growth rate of revenue from tourism has slowed down and the lowest growth was in 2014. A special contribution in this process was made by the introduction of new visa regulations in the country, namely: Georgia lifted visa-free regime in 24 countries, which

[6]Source: Figure is created based on the data of the National Tourism Administration website.
[7]Source: National Bank of Georgia. National Tourism Administration

in turn contributed to the number of visitors arriving in the country and income from tourism. One year after the visa regulation tightened, the Georgian government recognized the mistake and simplified the visa regulations to mitigate the negative influence of the strict visa regime. The result of this decision was reflected in the tourism sector in the same year and the number of visitors arriving in the country and the increase in revenue from tourism has again returned to the growing tendency. In 2016, revenues from tourism grew by 11,9% and amounted to 2,02 billion US dollars and in 2017 - 2.8 billion US dollars, which is 30% higher than the previous same index. As for the domestic tourism, it is different from international tourism and it is distinguished by a close distance and characterized by repeated behavior. Internal visitors different from international visitors know the culture, climate and language of the host. Due to the closeness of the location in local tourism mainly land transport is used, which reduces time and travel costs. Internal tourism has less prominent seasonality than international tourism and contributes more to the distribution of revenue between town and rural settlements. Also, domestic tourism is less sensitive to the current economic shocks and crises in the world.

Figure 4[8]: Distribution of internal visitors in Georgia by regions



According to the data of 2017, the majority of domestic visitors visited Tbilisi (26%), the second place goes to Imereti (18.5%) and the third place goes to Adjara (12,6%). As for expenses incurred by domestic visitors, average monthly expenses amount to 158 million Georgian lari (costs are different according to seasonality and reach the highest point in the third quarter when the average monthly expenses are close to 260 million GEL). The largest share of expenditure comes on food shopping and transportation. The analysis of modern state of tourism and the experience of advanced countries assures us that international tourism development reflects to a domestic, national tourism promotion, and vice versa. Domestic tourism contributes to the stability of the national economy, development and unity of the economy sectors which are traditional for the country, have enough resources and in turn, contribute to the overall stability of the economy.[9]

[8]Source: Official website of the National Statistics Office of Georgia
[9]Paresashvili N., Okruashvili N., Chitaladze Q., "A ROLE OF NATURAL TOURIST RESOURCES FOR DEVELOPMENT OF A TOURISM INDUSTRY", Materials I International Scientific and Practical Conference 24-30th October, 2017, pg.36

3. RESULTS

As noted above, Georgia's tourism potential is not doubtful, however, it is used only a very small part of it. In order to make real shifts to maximize the prospects of this potential, it is necessary firstly to analyze the hindering factors that are obstacle for intensive and extensive development of tourism. Simultaneously with the social and demographic challenges, the diversity of the protected areas in Georgia leaves space for many different tourism marketing arrangements (info- and press-tours, presentations, organizing festivals, publishing new printed materials and improving the awareness of tourism infrastructure among target groups), which must be implemented on a regular basis. The tourism potential of Georgia in the international market is advertised in an irregular and non-coordinated manner. Presenting Georgia in potential markets is not based on systemic market ranging or approved methods of the market penetration.[10] Part of these hindering factors is beyond the scope of the country's influence. However, they can be minimized and the rest of the problems are totally based on the country's efforts.[11]Currently, tourism indicators are not realistically estimated in Georgia and correspondingly, their quantitative analysis is impossible. Because of non-adequate and incompatible information, precise determination of touristic opportunities with its anticipated results and predictions is also impossible.

4. CONCLUSIONS

Nowadays, the fear of tourists to visit the partly occupied country in militant conditions with unstable political and social environment is a very important objective obstacle, but there is a possibility of its recovery and further development. The fact that today Russia is actively under pressure in the international arena to fulfill its obligations taken in 2008 creates certain guarantees to maintain existing status quo and not to combat hostilities. As for political stability in the rest part of the country, the only contributing factor is to increase democratization, improve the social-economic situation of the population and others. Providing the world with this information in an appropriate way and level and will reduce the risk for tourists in Georgia and accordingly it will increase the number of tourists. Under the modern trends of tourism development it is importance to improve the quality of informational provision of tourism statistics and implement an appropriate analysis. For this purpose it is necessary an intensive interdepartmental work of National Statistics Office of Georgia, the National Tourism Administration and the National Bank which is designed to develop and support tourism statistics.

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IDENTIFYING THE RELATIVE INFLUENCE OF THE PRODUCT-RELATED ATTRIBUTES ON CONSUMER'S CHOICE

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ABSTRACT

Under a dynamic and volatile changes that affect the marketplace, consumers face trade-offs in their buying decision on a daily basis. In such turbulent economic environment, producers are also facing a challenge by constantly developing and innovating their products, in order to satisfy much more demanding consumers who are seeking for extra benefits. In line with consumer's choice being a complex process affected by consumer's socio-demographic, economic and behavioral determinants, there is a set of several intrinsic and extrinsic product-related attributes that influence forming expectations during the purchase decision process. Since consumers' perceptions of product quality changes over time as a result of new information, increased competition or changing expectations, marketers need to have insights on consumer behavior to properly anticipate and respond market challenges. Understanding the process of forming expectations can provide guidelines to marketers and brand experts to identify the key parameters for developing a more efficient and focused product strategy. This study aims to investigate the relative importance of the selected extrinsic product attributes, since a better and more comprehensive understanding of trends in consumers' buying behavior and product attributes that mostly affect their buying decisions can enhance the product placement process. The research findings will result in several contributions, with respect to future marketing communications, product positioning and further scientific research.

Keywords: *branding, buying behavior, consumers' choice, product attributes, purchase decision*

1. INTRODUCTION

The market serves as a dynamic and volatile environment for the consumer - they face trade-offs that affect their buying decision from day to day. Since retail stores are getting more abundant in different brands of goods, the trade-offs between different brands can get even more difficult, especially in a turbulent economic environment caused by economic crisis. On the other hand, producers are facing a challenge in constantly developing and innovating their products, in order to satisfy more demanding consumers who are seeking for extra benefits. Consumer choice can be described as a complex process, affected by different product attributes and consumer perception developed under the interaction of product characteristics and personal socio-demographic, economic, psychographic, behavioral and cognitive determinants. Consumers are forming quality expectations based on quality cues during the purchase decision process (Tuorila et al., 1998), hence extrinsic attributes (for example price, brand name, country of origin, etc.) are responsible for purchase decision, while intrinsic attributes will affect liking a product or service and affect brand loyalty.

A substantial body of consumer research confirms that extrinsic product cues such as packaging and branding influence the consumers' product evaluation on specific product group like food, garments, etc. (Acebrón and Dopico 2000; Schifferstein 2001; Bernués, Olaizola and Corcoran 2002; Mueller and Szolnoki 2010; Almli et al. 2011; Rahman, 2011). However, the main purpose of this research will be to shed some light on the consumer decision process in a multi-category research that compares important extrinsic attributes among different product groups. The main objective of this paper is to review the literature regarding this field of research and explore which of the product extrinsic attributes mostly influence purchase intent. The theoretical research findings presented in this paper will be used in future research of Croatian consumer perspective on the relevance of the extrinsic attributes while making buying decision. The relevance of this research topic has several implications, with respect to future marketing communications, product positioning and further scientific research. Extrinsic attributes that will be investigated in this paper are price, brand name and country of origin.

2. CONSUMER BEHAVIOUR

Buying decision process is a complex and dynamic mechanism, that is influenced not only by different product attributes, but also a wide range of different cultural, social, psychological and personal aspects of an individual or a household. The complexity of buying decisions can vary from very simple decisions such as buying an everyday product like bread, or buying a car or apartment that is a very complex decision that demands longer time and deeper problem solving engagement (Kesić, 2003). With that in mind, the problem of anticipating consumer behavior is a problem of anticipating the demand for different products in general, therefore, understanding consumer's expectation can give competitive advantage in today's volatile market conditions.

2.1. Decision-making process

Developing a well marketing strategy regarding product positioning and differentiation thus requires understanding the target consumer's behavior and anticipating his needs. According to Rakić (2008), consumer decision-making process is a complex process that develops under several different influences that can be categorised in 6 different groups: (1) geographic, (2) demographic, (3) social, (4) economic, (5) psychological and (6) situation factors (Rakić, 2008). Nevertheless, there are five different stages that consumer goes through during the buying decision process (Kotler et al. 2006):

1. problem awareness and recognition
2. information search
3. evaluation of alternatives
4. purchase decision
5. post-purchase behaviour

Usually, some of the decision-making stages can be skipped, especially during purchases that can be categorised as a routine buying process. However, when consumer faces a new product or a product that requires more time and effort, all of the aforementioned stages have to be engaged to properly complete the buying decision process. At the very beginning, the purchase decision proces starts with the recognition of a need or problem that arises with the consumer's state of discomfort or a desire, both physiological or psychological. The awareness of the need can be triggered by internal (hunger, thirst...) or external stimuli (marketer's effort to create the need). After the need recognition, the consumer engages with information search. The consumer firstly seeks for information within his or her own memory - if the consumer's memory is lacking information, the information search continues among different external sources such as family and friends, or marketing ads and the Internet.

The next stage in the consumer's buying decision process is the evaluation of alternatives. The evaluation of alternatives is carried out using evaluation criteria that are a part of the cognitive structure of an individual (Previšić and Došen, 2007, pp 116), and will therefore vary among different customers and purchases. The consumers dedicated to evaluate alternatives will carefully evaluate product attributes among several brands. During this evaluation process, there are two kinds of decision making rules: compensatory and noncompensatory. The main difference between compensatory and noncompensatory decision rule is oriented towards a possibility to compensate for some product attribute. After the product attributes evaluation and choosing the best possible alternative, consumer is ready to proceed to the product purchase. Although most of the answers were already acquired during the first three stages, there is a possibility that the consumer gets affected by attitudes of others or brand images created by marketers also in this stage. The final stage of the consumer's buying decision process is the post-purchase behaviour, during which consumer evaluates the product and decides whether his or her expectation of the product have been met. Depending on the level of satisfaction (or dissatisfaction) with the product purchased, consumer will form an attitude towards buying the specific product or brand in the future.

2.2. The importance of alternative evaluation

In this paper, the main focus is directed towards the third stage of buying decision process that analyzes consumer's alternative evaluation. During this process, consumer is forming attitudes towards different product producers/brands based on product attributes evaluation (Rakić, 2008, pp 205). The results of the attributes asesment will affect the consumer's preferences and buying decision process, but also, the development of brand image. From the producers' perspective, the product attributes are buying incentives that can be constantly altered in order to stay relevant to our target group and influence the buying decision, while other characteristics that are given by consumer's internal and external environment can be understood and therefore, controlled of during developing marketing strategy. It is common knowledge that marketers can affect buying decisions by adjusting the elements of the marketing mix to satisfy the target market, hence the understanding of important attributes that can affect the buying decision process becomes even more relevant.

3. PRODUCT ATTRIBUTES

In line with the theory and a vast body of research, products generally contain several product-related attributes, which can be characterized as intrinsic and extrinsic. An intrinsic attribute is always a part of the product, while extrinsic is related to the product, but is not physically part of it (Olson, 1977). Extrinsic attributes are usually determined by marketing efforts such as price, brand name, place of origin, type of outlet, presentation, influence of store personnel, promotion, packaging, advertising etc. From consumer’s point of view, when intrinsic information is unknown, extrinsic cues are more likely to be used to assess product quality, resulting in an evaluation that is more heuristic in nature (Monroe, 2003). Hence, this paper aims to elaborate the relative importance of the selected extrinsic product attributes (brand name, price, and country of origin) according to a specific product group.

3.1. Brand name

Regarding the literature concerning food consumption, branding used to be an informational cue strong enough to attract consumers and influence their buying behavior (Jacoby et al, 1971; Kendall and Fenwick, 1979). Brand name was usually related to higher levels of perceived quality, therefore brand image used to be a risk reducer making consumers confident on how a specific brand will perform (Sheth and Venkatesan, 1968, Chernatony, 1991). The importance of branding is even more visible while reviewing the fashion industry, since they are highly

correlated to "psychological" consequences such as social status and self- identity (Reynolds et al., 1995). It is not difficult to imagine branding as a powerful tool. In time, some markets became more competitive, while branding was an effective way to achieve product differentiation. Goods were not selling just because of their utilitarian values, but also the hedonic value (Babin et al. 1994) like brand affection, brand identification and brand image. Furthermore, consumers could use brand image during product evaluation in two different, although supplemental ways. From the rational point of view, brand image helps consumers in simplifying their product knowledge about a particular brand (Meenaghan, 1995), while consumers search for a link between their self-concept and brand image in an emotional way. For example, when buying Nike sweatshirt, one is not only buying a quality product made from best fabric and innovative design. An opportunity to express belonging to a specific group represent the value added, due to previously developed brand image that suits personal beliefs and attitudes. According to the research and common knowledge, marketers have long exploited the power of brand image to sell their products. Some previous findings show that the price-brand relationship is product group specific, as the main implication for managers in food industry (Dodds et al., 1991). While branding is a common way to differentiate your product among fashion items and technology, there is a possibility that brand is relatively less important when compared to other extrinsic attributes, especially when it comes to fast moving consumer goods (FMCG) products (with particular emphasis on the food market). In a constantly developing retailing environment and under circumstances brought by global economic crisis, manufacturers of branded goods compete against retailers' private labels that rapidly increase their product quality, develop package design and set competitive prices. The aesthetic characteristic of a product plays a significant role in purchase intent and buying behavior in general, especially among fashion industry. Although design of a product is subject to personal taste and preferences, packaging attributes can persuade consumers to purchase the product, while combination with sensory attributes will result in liking the product. Packaging and design have to be eye-catching since they have limited time to convince the shopper that it is the right choice among all other products (Rowan, 2000). Thus, it is obvious that branded goods will have a hard time at a FMCG market battlefield.

3.2. Price

Research evidence display price as a relevant cue when consumers are operating without adequate information about intrinsic quality cues, or when it is the only available cue (Zeithaml, 1988). Furthermore, although it depends on products and individuals, some studies have found that price and quality are positively related (Dodds, Monroe and Grewal, 1991). Zeithaml (1988) pointed out that attention to prices is likely to be greater for higher priced than lower priced goods, therefore prices are used as a quality indicator when the perceived risk of making unsatisfactory choice is high (Zeithaml, 1988).

3.3. Country of origin

Country of origin plays a significant role in consumers' evaluation of a product, since it is a matter of perception. A country's good image is positively correlated with consumer's favorable evaluation of a particular product (Parvin and Chowdhury, 2006). Probably it is also a subject of prejudice, since consumers develop a perceived image that some country is specialized in producing particular goods. Just to name some examples: Switzerland and cheese, watches and chocolate; Germany and cars; France and perfumes; Italy and fashion items; etc. If this matter is considered with respect to the globalization and convergence context, there is not much reason for a strong relevancy of aforementioned extrinsic attribute. Hence, the literature suggests the existence of country-of-origin effects on product evaluation (Wall et al. 1991, Chao 1993).

When consumers cannot detect brand quality and value, they consider the country of origin for evaluating a brand. Similar like the price, country of origin may also serve as a proxy variable when other information is lacking. (Parvin and Chowdhury, 2006).

4. CONCLUSION

From the theoretical perspective, identifying the relative influence of the product-related attributes on consumer's choice will contribute in a better and more comprehensive understanding of trends in consumers buying behavior and product attributes that mostly affect their buying decisions. In the practical aspect, identifying the relative influence of the product-related attributes on consumer's choice could have several implications that can provide guidelines to marketers and brand experts to identify the key parameters for developing a more efficient and focused product strategy. Since previous research revealed that extrinsic attributes affects customers mostly when making a purchasing decision, while intrinsic attributes will affect in liking a product, the relative influence of several extrinsic attributes on purchase intent is to be empirically studied. The theoretical research findings presented in this paper will be used in future research of Croatian consumer perspective on the relevance of the extrinsic attributes while making buying decision. After all, consumers' perceptions of quality changes over time as a result of new information, increased competition or changing expectations, so marketers need to have insights on consumer behavior to properly anticipate and respond market challenges. Since buying decision process is a complex and dynamic mechanism that is influenced not only by different product attributes, but also a wide range of different cultural, social, psychological and personal aspects of an individual or a household, the complexity of buying decisions can vary. Accordingly, the problem of anticipating consumer behavior becomes a problem of anticipating the demand for different products in general, therefore, understanding consumer's expectation can give competitive advantage in today's volatile market conditions. The research findings will result in several contributions, with respect to future marketing communications, product positioning and further scientific research.

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THE ELEMENTS OF THE MECHANISM OF BUDGETARY REGULATION AND STRATEGY OF BUDGET POLICY MANAGEMENT

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ABSTRACT

Purpose of the study - The study of the budget mechanism and its elements, the study of methods for the formation and expenditure of financial resources at all the levels of the budget system.

Methodology - Comparison, synthesis and evaluation.

Results of the study - One of the most important tasks of reforming of the budgetary system is the creation of an effective budgetary regulation mechanism at all its levels, taking into account the nature and features of intergovernmental fiscal interactions. The peculiarity of the processes of reforming of the state bodies and the system of relations in the financial and budgetary sphere predetermines the need for rational distribution of revenue powers between the levels of the budget system, filling the revenue sources of the budgets, whose main share is tax revenues, and attracting non-tax revenues to the budgets.
Keywords: *budgeting, budgetary policy, budget revenues and expenditures, state control*

1. INTRODUCTION

The Paper discusses the development of national economics and the mechanisms of its effective regulation by the state. Particular attention is paid to the study of the role of budgetary regulation of macroeconomic processes. The Paper also notes that effective budgetary regulation, in general, the most priority issue in the system of economic management mechanism of the economy. The normal development of the national economy is largely depends on orderly regulation by the state. So, even at the maximum level, the liberalization of the economy does not deny the participation of the state in the management of economic processes. The fact that each state has its own interests and priorities makes it necessary for the state to intervene in all areas of public life. But even this intervention itself must have certain limits. If the economy is too monopolized by the state, then the sense of responsibility of both individuals and economic entities decreases, and they would have no interest in achieving better results, since, the state is not able to evaluate everyone's work equally honestly and fairly. The system of state regulation of the national economy should, in general, determine the level of state influence on economic life. Without the presence of such a regulatory system, it is impossible to effectively coordinate activities for the formation of market relations.

2. PROBLEMS OF STATE REGULATION OF THE NATIONAL ECONOMY WITH THE HELP OF THE STATE BUDGET

With the formation of the economy of the republic in accordance with the principles of a market economy, the development of a diverse economy in our society, the creation on an equal basis of conditions for the activities of various forms of ownership, the privatization process has accelerated. In order to increase the effectiveness of the measures taken in connection with the development of the republic's economy, the state pays special attention to the regulation of economic development and its main component.

In the transition to a market economy, the role of the state in the economic revival of the republic, in establishing international relations, in the total volume of imports and exports and in the development of free enterprise is undeniable. In the modern world, in the conditions of the market orientation of the economy of the republic, a fundamental change of the management mechanism is needed. The transition to a market economy with a mixed economy transforms the state regulation of the economy into a specific management tool. In our conditions, i.e., in the period of formation of market relations on the part of the state management bodies with the help of programming, mechanisms of influence on the development of the national economy should be used in fullest extent. Budget regulation, in general, the most priority issue in the system of economic management mechanism of the economy. As we know, the budget system, being an important management mechanism in a market economy, is formed on the basis of state principles. Budget regulation in general is used to organize the activities of the economic system, to stimulate production and to improve the principles of separation. The scientific substantiation of its limits, analysis and management of factors and outcomes should be based on a number of methodological and practical features. Budgetary regulation has features inherent in each country. In a market economy, the tasks of managing the state budget, revenues and expenditures became even more complicated, and as a result, they faced serious social and economic problems. And therefore, the strategy of managing income and expenses should be worked out and evaluated from the prism of the most important economic and production problems. It is this approach that will enable the creation of a clearer picture of the complex nature and content of the budgets and budgets of the state budget, and, as a whole, the state budget. The budget system is being formed in accordance with the economic system and the political organization of each country. In general, there are "traditional", "performed" (or "executable") and "programmatic" budgetary systems. Traditional budgetary systems mainly provide a control over the implementation of the costs stipulated by law. In other words, the control function plays a leading role in this system. Support for economic activity is one of the current issues in the transition period. And, from this point of view, it is advisable to study the "performed" budget systems, which is also called an "executed" budget system. This budget system is made up as a working program. The executable budget systems have two elements: the classification per services; service-financial connection. The "programmatic", or "planning-program" budget system, unlike the earlier marked budget systems, additionally provides the use of the budget as a strategic program. Here, it is possible to analyze alternative service programs and select the best from a macroeconomic point of view. The basis of this budget system is a system analysis. In other words, if the performance of services is known to achieve any specific goals in the public sector, if attention is given to alternative approaches helping to achieve the goals, if the goals are long-term and if the performance of existing service programs is adequately evaluated, decisions related to the distribution of sources of funds will be more optimal. In general, the budget system expresses the combination of all types of budgets united in the budget of each country. The creation of a budgetary system and the organization of interconnections between its various links express budget construction. Budget construction reflects the mechanism by which the budget system is built. With traditional fiscal policy, it is very important to keep the state budget balance constantly. If the state wants to influence national income, then it must bring the supply and demand for labor to the level that can change the cumulative production. Due to the fact that it is impossible to achieve technical progress that affects the growth of cumulative production, population growth through fiscal policy, fulfilling traditional tasks and ensuring that taxes do not affect the level in economic activity financing of these services, a small but balanced fiscal policy is consistent with the requirements of traditional fiscal policy and theory. Issues of improving budget planning should be implemented in unity with issues of the public administration. The basic condition for the successful implementation of the program-target approach is the implementation of financial

discipline in the implementation of adopted budgets. The main problem for the successful application for result-based budgeting is the difficulty of determining the socio-economic results of the activities of state enterprises, as well as a lack of unified system of goals and indicators, imperfection of the accounting system and of information national security. As it is known, fiscal policy is a regulatory system associated with government spending and taxes. State expenditures refer to expenditures for the maintenance of the institute of statehood, as well as for the purchase of certain goods and services by the state. It can be different types of contracts, for example, the construction of schools, health facilities and cultural facilities, and the purchase of imported goods, military equipment at the expense of the state budget. The main distinguishing feature of all these orders is that the state itself is their consumer. Usually, government contracts are made up of two kinds: less or more stable. Government spending plays an important role in the socio-economic development of society. Therefore, the issues of increasing the efficiency of government spending, their regulatory role in ensuring socio-economic development, the formation of a new quality of economic growth is very relevant/important. Much has been said about the need for systemic changes in the budget process. But, due to various reasons, this problem still remains unsolved. At the same time, it can be said that certain steps have been taken to revise the restructuring of the public sector. The essence of the new approach to the budget process is simple and clear: the costs are not for the sake of costs, but the costs for the sake of achieving concrete results. To achieve this goal, we consider it necessary to solve the following tasks:

- Optimization of the network of budgetary organizations. This is the restructuring and introduction of new forms of financing of budgetary organizations.
- The solution of this task is certainly more complicated and requires the implementation of certain innovations in the current budget legislation. The Ministry of Finance should systematically address this issue;
- Development and use of results-based financing methods.

The decline in GDP in the economies of the newly independent states, the spread of the process of national reproduction, the breakdown of ties between production and financial systems, the deterioration of the socio-economic position of the population is due to these reasons (1). Sometimes, the regulatory role of the state in the economy is associated with its role in production and the level of the share of state ownership. Such an assessment in terms of the role of the state in the monetary system and the effective use of public finances is wrong. This is because the role of the state in the economy is not adequate to the level of state ownership over the means of production. Here, the main thing is the level of national income in the form of public finance. The analysis shows that, in the developed countries of the world, the share of government growth in GDP does not decrease, but develops at an increasing rate. This figure is 30% in the USA, 60% in Denmark, 54.6% in France, 53.7% in Belgium. In a developing market economy, there is no alternative to increasing government spending in GDP and saving strategies. A policy of reducing this government spending itself will result in general reduction of all expenditures, including vital items of expenditure. It is clear that a decrease in capital investments in high-tech projects from the state, budget allocations for the maintenance of the infrastructure providing basic funds will lead to deterioration in the prospects for economic development. At the same time, the decrease in the state sector engaged employees' real wages will cause a decline in labor productivity of those working in this sector and the emergence of social conflicts. It is necessary to take into account that it is difficult to estimate and measure the majority of budget expenditures at market rates. Produced products cannot be quickly realized (sold). In general, non-production state expenditures can be costly for a country's economy. In the modern conditions, new elements are constantly being added to the state financial mechanism that requires the appropriate settlement and control tools.

At this stage, state finances must again be transformed from the category of distribution into the category of reproduction. Government finances do not simply fulfill the function of government provision. It is also an effective element of reproduction processes (4). Integration to the global financial market requires the development of the mechanism of adaptation and of mechanisms for the protection of national interests in the field of state finances. Long-term definition of the concept of a budget strategy is a very difficult issue. In the world practice, there are no long-term financial forecasts. There are a number of objective reasons related to the nature of financial and budgetary processes.

3. METHODOLOGICAL AND PRACTICAL FEATURES OF THE BUDGETARY REGULATION

Economic theory's history knows no purely financial patterns/laws that would allow predicting the financial and economic situation for a quarter of a century. But this does not mean that there is no scientific basis and no impartial need for long-term forecasting. The forecasts of the budget sphere are essentially based on the connection of the budget strategy with the laws of general reproduction and economic growth. The dependence of the dynamics of budget revenues on the overall dynamics of GDP and on business activity reflects the determination of the sphere to common economic laws, which are the first methodological principle. As noted, there is an objective relationship between the level of GDP that reflects the scale of the reproduction process and the amount of financial resources of the state that serves this process. The second methodological principle is the dependence of economic dynamic on the typology of budget strategy and on real budget proportions. This principle is essentially crucial for long-term budget forecasting. The budget strategy should not only passively reflect market processes, but, on the contrary, have to form common economic limits. The third methodological principle is forecasting on the basis of the internal intensity of budgetary relations and the internal factors of the budgetary tax system of budgetary dynamics. This means that the projected budget-tax potential and proportions depend on the use of the internal resources of the existing budget system. The fourth methodological principle is a socio-political accounting of forecasting. In our opinion, the basis of the financial system and the restructuring of the budgetary regulation should constitute the following principles:

- Creating a stable system of financial relations;
- Restructuring should be holistic/complex character and should ensure close links between all elements (financial infrastructure, government finances, insurance organizations, pension funds and other financial institutions) of the financial system:
- Limited resources makes it necessary to use the principle of centralization of financial resources;
- The restructuring of the financial system should mainly be carried out at the expense of internal sources. Foreign loans and investments should play a supporting role.

In our opinion, in the condition of integration, a systemic update of the tax mechanism for improving budgetary relations is one of the factors creating conditions for economic growth. For these purposes, it is advisable to take the following measures:

- The expansion of the tax base by coverage of the "shadow" sector ("shadow economy") of the economy;
- Reducing the tax burden for the real sector of the economy;
- Standardization of tax legislation and tax reports;
- Gradual decrease and differentiation of rates for profits and for VAT;
- Differentiation of income tax for individual sectors of the economy.

4. CONCLUSION

The implementation of the correct fiscal policy can lead to an increase in budget revenues, and a decrease in budget expenditures. To achieve a positive balance (surplus), a number of reforms and programs should be prepared within the framework of the budgetary system. Macroeconomic indicators, directing fiscal policy, reflects the achievement of faster economic growth, the identification of additional sources of budget revenues, an increase in direct participation and influence of the budget, increased financial discipline and transparency, reduced poverty, improved application targeted social assistance and the creation of financial conditions for the development of entrepreneurship and regions. One of the main goals in the budget policy is improving the well-being of the population, increasing incomes and the level of employment, turning the state budget into the main financial source as well as into an economic tool for managing the economy and stimulate its dynamic development (2). One of the primary steps taken to increase the volume of the budget and in general to improve the budget process is to increase control over budget expenditures. Because the lack of proper control over budget expenditures can lead to the growth of corruption opportunities, the legalization of a large amount of illegal incomes, and even to more monopolization. As a result, the state budget revenues will decrease, and in general the economic entity called the budget process will begin to bear a formal character. Thus, in order to achieve progressive movements in the development of economy, the development of effective mechanisms for the implementation of these tasks in the field of fiscal management is of strategic importance. Conducting this control will lead to the concentration of state revenues in the state budget, and this in turn will lead to a reduction in poverty, the continuation of structural reforms in the economy, an increase in budget revenues, ensuring social and investment orientation of budget expenditures, transparency and effective management of expenditures. And in the future, conducting a successful budget/fiscal policy will ultimately have a positive effect on the development of the state from an economic point of view.

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UNIVERSITY BRANDING IN AZERBAIJAN: EMPIRICAL STUDY OF STUDENTS' CHOICES FOR EDUCATION

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ABSTRACT

Under the intense global and national competition, Azerbaijani universities began branding initiatives to position and differentiate themselves to be the first choice of students. In recent years, both state and private universities in Azerbaijani have been implementing branding and rebranding strategies to attract more students and distinguish themselves in a crowded higher education market. University branding is a recent concept to Azerbaijan, so lacks academic and empirical studies in regard to the impact on Azerbaijani students' university selection choices. The aim of this article is to present exploratory research using survey data collected from four private and public universities in Azerbaijan. It compares criteria used by university students when selecting a particular university from among those that they made application and their views of the university they attended. The study reveals that there are a variety of criteria that Azerbaijani students consider when applying for university. However, there is both economically and statistically significance of the existence of active students clubs/unions in a university as important criteria that influence students first choice for university selection. The study also showed that mostly friends/family, and to a lesser extent, university visits play important role in obtaining information about a university among Azerbaijani students. The research findings should be useful for higher education institutions to review and enhance branding strategies that promote their international positioning and help the sustainable development of Azerbaijan universities. As it is the first research conducted in this field in a dynamic country like Azerbaijan, it should also interest foreign higher education institutions that wish to recruit Azerbaijani students.

***Keywords*:** *branding, name recognition, university, university selection*

1. INTRODUCTION

As result of changes in an educational environment, shrinking financial support from governments, pressure by competitors and decline in university-going population, universities started increasingly using marketing and branding strategies that mainly was adopted by an organization from the for-profit sector. (Hemsley-Brown & Goonawardana, 2007; Stephenson & Yerger, 2014; Wilkins et al., 2015). Based on mainstream reports, there is also an indication of the increase in marketing and branding budget of universities (Chapleo, 2014). Historically, university branding has been done for different purposes. To Joseph et al. (2012) university branding is used to create "awareness among prospective students and their parents; or target donors, professors, business leaders, alumni, and elected officials with branded messages". University branding is also used to improve higher education institutions international ranking (Bunzel, 2007). To Paden and Stell (2006), some universities brand themselves to improve their name awareness, others aimed at creating an entirely new image. To Kurz et al, (2008), among the various approaches to university branding with the foremost common being educational quality, high profile athletics, convenience, co-branding and/or distinctive programs or majors. The intense global and national competition made it inevitable for Azerbaijani universities to start branding initiatives to position and differentiate themselves in order to be the first choice of students. Because more students mean a better financial condition to realize educational and academic projects. Main sources of public universities revenues come from tuition fees and government funds.

Depending on scores gained from national university entry exam, students (with a higher score) get state aid that covers their tuition fees and those with lower score have to pay tuition fee by themselves (parents or another source). However, the tuition fee is the biggest source of revenue among private universities in Azerbaijan. Both public and private universities in Azerbaijani have recently been implementing branding and rebranding strategies to attract more students and distinguish themselves in a crowded higher education market. After the implementation of the Bologna Accord in Azerbaijan this process became intense. Most of the barriers faced by Azerbaijani students were eliminated with the Bologna Accord and a new gate opened for their mobility across the European continent. Azerbaijani higher education institutions realized that they have to deal with European competitors in parallel with national ones. There are many different approaches and motives to university branding that are based on studies mainly in western countries. University branding is a new concept to Azerbaijan. It lacks empirical and academic studies in regard to university branding in Azerbaijan and their impact on Azerbaijani students' university selection choices. This study is conducted to explore which criteria are important to students in Azerbaijan when selecting a university. In this regard, this study is undertaken to clarify how current students at the universities gained information about the universities they considered; and whether there are certain factors that are significantly important than others for students' first choice for university.

2. DEFINING BRAND AND ITS BENEFITS FOR UNIVERSITIES

There are numerous perspectives and approaches to the brand concept. To Keller and Lehmann (2003) brands are a name and most valuable asset of the company that influences customers, and sign of service or a product that differentiate from others. Kapferer (2004) considers the brand as a system of three poles including products and service, brand concept (value proposition), and brand name and symbols. The American Marketing Association (1960) defines a brand as "a name, term, sign, symbol, design or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition." All these definitions help us to understand the meaning and purpose of a brand. However, one of the well-defined explanations of the brand in the higher education institutions was given by Temple (2006). To Temple (2006) 'the brand emerges as a function of how well the institution performs in meeting the needs of its clients: it is the result of effective marketing' (p. 17). To McNally and Speak (2002) consumer's feelings and perceptions about the institutions is the higher education brand. Pinar et al. (2013) mention that in order to ensure sustainability in higher education institutions many universities gradually shift the promotional landscape from traditional tools to branding. Brands can simplify decision and reduce the risk for a consumer (Suri and Monroe, 2003). Brands can also help consumers as a signal of a certain level of quality (Erdem, 1998). To Simms and Trott (2006), brands largely appeal at the emotional level via key association and symbolic image. Balmer and Gray (2003), indetify the value of the corporate brand on its ability to differentiate itself in the mind of stakeholders. Berry and Lampo (2004) found out that brandings are very successful in the differentiation of companies in labor-intensive services. According to the study at both private and public conducted by Joseph et al (2012) universities in southern United States in regard to understanding student's choice of an educational education institutions demonstrates that dissemination of information about a university mainly happens by word of mouth from friends/family, university representatives, and /or high school counselor The same study also reveals that amenities/ facilities play more important role as a factor of selection for university. According to Sevier (2007, p.46), strong brand means "more and better students, more full and fuller paying students, more students will persist, more strategic partners" for the university. A successful university branding campaigns result in better students qualifications and increased admission application (LipmanHearner cited in Joseph et al., 2012).

To Moore (2010), increased faculty recruitment and retention rates for professors and students are also benefits of successful university branding. Most of the existing approaches and theories to branding are rooted from studies of commercial products and services. Therefore, there is a limited study of university branding. Previous studies in university branding demonstrate that it is a complex process and there is not a single approach to be implemented for success. To Balmer et al. (2007), there is a difference on corporate branding in regard to relationship between university and students in comparison to relations in the for-profit sector. Students are not just customers; moreover, they are "life-long organizational members of a corporate brand community." (Balmer et al. 2007, p. 357). Balmer also suggests that approach to branding within higher education instituions is tend to be more student and stakholder-oriented. Studies on positioning of international education brands conducted by Gray et al. (2003) presented that adaptation branding strategies are more effective in the Asian markets. The study of Jevons (2006) proposes a need for clarification of universities brand meaning and their differentiation from others. To Watkins and Gonzenbach (2013) success of branding in an institution is influenced by its external stakeholder. In this regard, essential to attain differentiation among competitors there is a need for understanding and managing the brand perception of all stakeholders (Davies & Chun, 2008). To Duesterhaus and Duesterhaus (2014) students may not see the university rankings that used by an institution to signal assurance of quality as meaningful in selecting a suitable college. Emotional attrbiutes play important role when students evaluate a potential university (Duesterhaus and Duesterhaus, 2014). This study underlines the need for the development of relationships and the emotional connection that students seek. There is a consensus in regard to understanding institutional branding and great value of clearly developing and communicating the brand for universities. (Hemsley-Brown & Goonawardana, 2007). However, studies also suggest that the complexity of university branding does not allow direct implementation of traditional branding approaches in higher education institutions (Whisman, 2009) and there is a struggle among universities to develop and implement branding strategies (Curtis *et al,* 2009).

3. EXAMPLES OF RECENT UNIVERSITY BRANDING IN AZERBAIJAN

There are a few examples of university branding and rebranding in Azerbaijan. One of the strong university branding initiatives was conducted by Azerbaijan State University of Economics (UNEC). In 2016, Azerbaijan State University of Economics began using a different color and a new logo and new abbreviation of its name (UNEC, 2016). Azerbaijan State University of Economics started to use: UNEC as a trademark. In regard to the new branding initiative, the university wanted to create a new brand of the university that better reflected its high-quality education and services, and so make its employees and students proud of being associated with it. As a part of the branding initiatives, UNEC created a new mission, vision and set of values. UNEC's branding aimed to position itself as the number one profiled economics university in the region to attract more students and better faculty. In this regard, UNEC launched a recruiting campaign to attract young and foreign-educated Azerbaijani professors and lecturers to the University to improve its image in public. Hence, more than 200 hundred young Azerbaijani with foreign education has since been employed as faculty staff and administrative officers at UNEC. University branding was also aimed at ranking in the international ranking institutions. In 2017, UNEC has entered the list of top 150-200 best universities in Emerging Europe and Central Asia ranking of QS. UNEC's vision is to be among the 500 best universities in the world on its 100th anniversary in 2030. Branding process at UNEC is also aimed to contribute to Azerbaijan's global competitiveness and support the sustainable development of Azerbaijan. In this regard, Muradov and Bagirzade (2016, p. 18-41) mentioned that competitive higher education institutions and advance education infrastructure has a positive impact on a country's competitiveness in the global market UNEC

offers full bachelor, master, and doctoral programs in four languages: Azerbaijani, English, Turkish and Russian (UNEC, 2017). ADA University was established as an Azerbaijan Diplomatic Academy under the Ministry of Foreign Affairs of Azerbaijan in 2006. In 2014 it transformed into a university by decree of the Azerbaijan President and began to brand itself as ADA University. When the Azerbaijan Diplomatic Academy was established, it was aimed to train Azerbaijani diplomats. However, soon it expanded its education programs and services to other fields. At the moment, ADA University offers bachelor and master programs under fours schools, including the School of Public and International Affairs, School of Business, School of Education, and School of Information Technologies and Engineering. ADA University aims to be the developer of a productive research climate and to stimulate a forum for innovative ideas in Azerbaijan. Its brand positioning can be explained as "an innovative model of learning, a unique setting for collaborative research in a variety of fields – already making ADA University a center of learning in an increasingly strategic geopolitical region of which Azerbaijan is central. " (ADA University, 2018). The language of instruction is English at ADA University. One of the early branding approaches to higher education institutions in Azerbaijan was adapted by Khazar University. Khazar University was established in 1991 in Baku and is considered as the first private university in Azerbaijan. Khazar University offers a wide variety of programs from humanities to biomedical engineering. Khazar University aims to position itself as a leading university in Azerbaijan. Academic credit system to measure and assess students' work and effort during their study programs, first time, implemented by Khazar University in Azerbaijan (Khazar University, 2018). There is one more Azerbaijani university that has previously started a rebranding campaign. It is Azerbaijan State Oil and Industry University which was previously named as Azerbaijan State Oil Academy. The university underwent a serious rebranding campaign in 2016. The university's new logo and name abbreviation introduced to the public same year. The aim of the university rebranding was to make the university main destination for study programs in different fields of industry, particularly in the oil and gas sector (ASOIU, 2018).

4. DATA AND METHODOLOGY

Research data is collected through online anonymous survey among 377 students of four universities – Azerbaijan State University of Economics (UNEC), ADA University, Azerbaijan State Oil and Industry University (ASOIU), and Khazar University. One private university included since less than 10% of total students enrolled in private universities in Azerbaijan (Ministry of Education, 2018). A number of correspondents from the private university are consistent with the approximate ratio of students enrolled at private and public universities. Among the survey participants, 203 or 53.8% are female and 174 or 46.2% are males. In the survey, students have reflected their view on "good university" according to 25 indicators. The answer choices change between 0 (not important at all) and 4 (very important). Main descriptive values about the responses of students for each given indicator are tabulated in table 1, below. Brief analytical results display that students of the target universities consider most of the given indicator as very important criteria of "a good university". In most cases, the mean response value is very close or greater than 3. In this context, *p values* show the level of significance for each indicator. Note that when *p-value* is less than 5%, the null hypothesis of "not important at all" is rejected and vice versa. According to table 1, the p-value is less than 1% for the majority and 5% for some remaining indicators. However, the p-value is greater than 5%, but less than 10% for low cost education, faculty/student ratio, small class size indicators which show less importance of these criterias for students.

Table following on the next page

Table 1: Main descriptive statistics of responses for each indicator

Indicators	No. of observations	Mean	Std. deviation	T-statistic	P-value
Facilities	370	3.322	0.908	3.657	$p < 0.01$
Latest technologies	370	3.466	0.889	3.898	$p < 0.01$
Reputation of university	372	3.473	0.854	2.321	$p < 0.05$
Low cost education	363	2.467	1.382	1.784	$p < 0.1$
Scholarship opportunity	370	3.151	1.142	2.759	$p < 0.01$
Quality education	375	3.826	0.579	6.6	$p < 0.01$
Intrenational accreditation of university diploma	371	3.697	0.698	5.299	$p < 0.01$
Friendly environment	368	3.144	0.978	3.214	$p < 0.01$
Avaiablity of financial aid (state sponsored)	371	3.2	1.186	2.696	$p < 0.01$
Location of university	368	2.918	1.066	2.736	$p < 0.01$
Faculity – student interaction	375	3.297	0.975	3.379	$p < 0.01$
Acceptance rate	368	2.558	1.174	2.182	$p < 0.05$
Student services	371	3.184	1.033	3.079	$p < 0.01$
Name recognition/University Image	373	3.387	0.919	3.685	$p < 0.01$
Living accommodation / housing	367	1.418	1.342	1.057	$p > 0.1$
Size of university	372	2.539	1.094	2.321	$p < 0.05$
University – industry relations	373	3.621	0.768	4.713	$p < 0.01$
Faculty / student ratio	369	2.144	1.194	1.794	$p < 0.1$
Small class size	370	2.306	1.232	1.871	$p < 0.1$
Employment opportunity after graduation	369	3.388	1.026	3.303	$p < 0.01$
Double degree diplomas	367	3	1.173	2.557	$p < 0.05$
Study in foreign language	373	3.685	0.762	4.834	$p < 0.01$
Existence of active student clubs / unions	368	2.855	1.223	2.334	$p < 0.05$
Career planning center for students	371	3.303	1.024	3.225	$p < 0.01$
Social conditions for students (student organizations, sport clubs, etc.)	370	2.954	1.155	2.558	$p < 0.05$

Source: Author's own completion according to survey data

The students consider a wide variety of criteria such as quality education, study in foreign language, university-industry relations, name recognition/university image, faculty-student interaction, international accreditation of university diploma, university reputation, latest technologies, career planning center for students, employment opportunity after graduation, and existence of active student clubs/unions for students as important for a good university. However, it should be considered that consideration criteria for a good university may always not be as same as criteria or factors which affects students' university selection decision.

In the survey, it was also revealed that most of the students (67%) reported obtained information about the university by friends/family. To a lesser degree, students (11%) answered that their visit to university was the main source of information about a university.

5. MODEL BUILDING

To investigate the issue beyond brief descriptive statistics, an attempt was made to build the empirical model of factors which affects students' university selection decision. For this purpose, respondents are asked to mention whether the current enrolled university was their first choice or not in the university selection list. Thus, being "the first choice" means to be the best university in a student mind. Therefore, the following base probabilistic model is built for the estimation stage:

$$Choice_i = \delta_0 + \sum_{l=1}^{k} \mu_l * \Psi_i + \theta_i$$

Whether, $Choice_i$ is a dummy variable, equals 1 if the enrolled university was his/her first choice in a time of university selection, and 0 otherwise. i denote i-th observation. δ_0 is the constant term. Ψ_i include some selected indicators discussed above. μ_l stand for the coefficient of each selected indicator while θ_i is the error term. For robustness of results, specified the same model is estimated by Ordinary Least Squares (OLS), Probit, and Logit estimation methods.

6. EMPIRICAL RESULTS

Table 2 displays empirical results from OLS as well as Probit, and Logit binary choice estimation methods. Indicators are selected after examining various model specifications. Because some indicators given in table 1 are very close to each other, symptoms of multicollinearity problem are detected. That is why some indicators with insignificant effect are removed from the model. Results from all three estimation methods support each other. Findings reveal statistically and mostly the economically insignificant effect of small class size, international accreditation of university diploma, quality education, state sponsored financial aid, faculty/student ratio, the reputation of the university, name recognition and availability of housing/dormitories over the first choice of prospective students in a time of university selection ($p\ value > 0.1$). Surprisingly, results in the negative significant impact of employment opportunity after graduation ($p\ value < 0.1$) and existence of double degree programs ($p\ value < 0.05$) over the first choice while making the university selection decision. There may be several reasons for employment opportunity after graduation to be deemed insignificant. In the first scenario, it may possibly be related to a misunderstanding of this criteria. It may also signal poor perception of the university's role in helping and consulting students to match their dream job in the labour market. In the second scenario, students may possibly not have any desire and or expectation from the university in assisting them with employability after graduation. It may be linked with decades-long traditional component of Azerbaijani culture. Insignificant of double degree programs for students may be related to the perception of higher cost for such programs in Azerbaijan. Therefore, certain limited group of students may consider these factors significant while making university selection. The impact of low cost education indicator is found to be parabolic with a weak significant slope. Slope parameter of $Low\ cost\ education^2$ is statistically significant in OLS ($p\ value < 0.05$) and Logit ($p\ value < 0.1$) while insignificant according to Probit results ($p\ value > 0.1$). This is plausible. Thus, a candidate chooses firstly low cost or free education programs while applying. Especially for those who consider low cost education as relatively very important indicator prone to follow this behavior mostly.

Table 2: Empirical results

Indicators	***Coefficients***		
	OLS	**Probit**	**Logit**
Small class size	0.036	0.152	0.268
Double degree diplomas	-0.054**	-0.256***	-0.449***
Intrenational accreditation of university diploma	0.048	0.217	0.362
Employment opportunity after graduation	-0.041*	-0.187*	-0.306*
Quality education	-0.020	-0.056	-0.105
Availability of financial aid (state sponsored)	0.021	0.094	0.165
Existence of active student clubs / unions	0.039**	0.161**	0.296**
Faculty / student ratio	0.0002	0.002	-0.008
Low cost education	0.057	0.219	0.310
$Low\ cost\ education^2$	-0.026**	-0.100	-0.159*
Reputation of university	0.017	0.055	0.115
Name recognition/University Image	0.031	0.139	0.226
Living accommodation / housing	-0.034*	-0.146*	-0.261**
C	0.683***	0.440	0.790***
No of obs.	*345*	*345*	*345*
R-squared	*0.107*	*0.116*	*0.115*

*Note: *, **, and *** show the level of significance at 10%, 5%, and 1%, respectively.*

Maybe, the most valuable contribution of this paper is finding very important, economically and statistically significant impact ($p\ value\ < 0.05$) of the existence of active student clubs in the target universities which plays a prominent role in the first choice of candidates who consider that as an important indicator of a "good university".

7. DISCUSSION AND CONCLUSION

This study showed that students in Azerbaijan consider a wide variety of criteria when they apply for a university. However, these considerations may not directly be reflected in their actual behavior in regard to their first choice for university. For example, quality education, study in foreign language, university-industry relations, name recognition/university image, faculty-student interaction, international accreditation of university diploma, university reputation, latest technologies, career planning center for students, employment opportunity after graduation, and existence of active student clubs/unions for students are important considerations for students and they may be critical branding factors in the student's search for a good university. However, active student clubs/unions is an important selection criteria for students' first choice and yet surprising factor in this study. Our study suggests that the existence of active student clubs/unions for students may be important selection criteria to Azerbaijani students when they choose among university alternatives while other considerations are also

presented. In this regard existence of active student clubs/unions in case of Azerbaijan may be more critical factor when it comes to students' first choice for higher education institutions meanwhile branding efforts may be critical in student's search process for a university. The study revealed that although university branding initiatives may shape image of university and increase awareness about a university, friends/family of potential students, university visits and high schools play a greater role on dissemination of information about a university in Azerbaijan. Successful university branding campaigns in Azerbaijan should focus on the target groups of prospective students' family and friends, and organize impressive open campus days for prospective students and their parents. It should also be noted that universities in Azerbaijan differ by size, program offerings, cost, location, and reputation. This study conducted among the four private and public universities situated in the capital of Azerbaijan and importance of selection criteria might have differed if the students surveyed attended the universities that situated in the regions. Since it is first research of its kind conducted in Azerbaijan, it may provide a framework for further researches to use larger student samples and involve regional universities.

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COMPARATIVE ANALYSIS OF THE CURRENT SITUATION AND DEVELOPMENT PROSPECTS OF THE FORMER SOVIET UNION REPUBLICS IN THE SOCIAL BUSINESS

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ABSTRACT

Social business is a kind of new and modern business that does not damage necessary needs of humanity, dividends and a complete social goal. Social business doesn't aim to make a profit. The aim of this business is to solve social problems by using business methods as well as by organizing sale of products and services. As commercial business types, this type of business operates in many different directions, however as social impact is a major goal of it, all profits should integrate into business again or be used for organization of social work. Development of social business in the country plays a crucial role in eliminating unemployment and poverty, the development of small and medium sized entrepreneurship and solving the problems of society and improving prosperity. The development of social business is one of the main objectives because of these reasons specifically. All newly independent countries declared to move into market economy after the collapse of Soviet Union. However, a market economy made a huge step to take shape in these countries. One of the main problems facing the transition to a market economy is the creation of a favorable business environment and business development. The main task of these countries is to reduce poverty and achieve prosperity. One of these strategies in the modern world is the growth and development of social business. The article will consider the types of social business not only theoretically but also systemically, including world experience. In addition, the study will examine the current state and prospects of social business in Former Soviet union republics. The role of social business in the economies of these countries will be considered and analyzed in a comparative way. Factors affecting the development of social business in the countries will be clarified. As a result, those countries will be given some recommendations based on theory and world experience, and will show prospects for development.

Keywords: *Social Business, Social Business Development, Prosperity Level*

1. INTRODUCTION

Social business is a new type of business. Social business is a business model which provides the most urgent needs of human beings instead of increasing profits. As opposed to this traditional view of economic wealth creation, the concept of Social Business gives priority to a selfless cause of social wealth creation where the objective of earning the profit is only for the sustainability of the firm rather sharing with its owners other than poor. The concept of Social Business was first introduced and shaped by the Nobel laureate professor Dr. Muhammad Yunus in 2007 and since then the idea has started to spark among academician and researchers.

The social business was theoretically and systematically investigated, the current state, experiences and future perspectives of social business in post-soviet countries have been analyzed in the research work. The role of social business in these countries has been revealed, comparative, and relevant proposals have been made. Many books on social business are written in the world. David Bornstein's most famous book is "How the Change the World". 1.5 million copies of this book were sold in India in 2005. The book was later published in many countries. Worldwide researches relating to Social Business are as follows: Muhammad Yunus-Creating a World without Poverty, Dick Atkinson-Cities of Pride: Rebuilding Community, Refocusing Government, Asa Briggs-Michael Young: Social Entrepreneur, Peter Birinckerhoff-Mission Based Management: Leading Your Not- for Profit in the 21st Century, J. Geregory Dees-Enterprising Nonprofits: A Toolkit for Social Entrepreneurs, Johanna Mair, Jeffrey Robinson, Kai Hockerts: Social Entrepreneurship, Alex Nicholls: Social Entrepreneurship: New Models of Sustainable Social Change. Yunus centers are opened in more than 70 universities around the world, as well as at the Azerbaijan State University of Economics (UNEC). The topic which is investigated in most of the countries is one of the key factors promoting economic development.

2. CONCEPTION AND TYPES OF SOCIAL BUSINESS

Social Business conception as a new type of business was created by the Nobel Peace Prize Laureate Muhammad Yunus. Let's start with the generalized description of Mohammed Yunus: Social Business is a financially sustainable organization created solely to solve social problems. While it is possible to withdraw initial investments, all potential profit is reinvested to further enhance the social impact of the organization. (Yunus, 2008, and Yunus Center Website). Understanding the importance of charity work in the world of money-oriented capitalism, the ongoing poverty problems in the world and the role of charity in solving this problem, Mohammad Yunus has implemented the Social Business Concept within the framework of the Social Concept. "Whenever I wanted to solve a human problem - I was trying to think of how to use the business approach and how to help others. These were the new companies, which they did not earn money for themselves. No matter what the company's profits are, we have developed the company for reinvesting in solving more social problems. And I began to name this company as a social business."(Yunus Social Business Investment Report, 2013). He states that social business should not be created for the acquisition of a limited income, but for the achievement of concrete social goals. Social business seeks to make a profit, and clarifies the purpose of such a business - the criterion that needs to be measured is the social benefit of the people who are affected to the problem. The company itself can earn profits, but investors who support it do not get any profit from the company, except for a substantial amount of initial investment. A social business is not a profitable company and has the potential to act as a means of change for the world. (Yunus, 2007, 2008). Hence, Social Business, which is governed by the principle of not to windfall loss and not to pay dividend, is aimed primarily at solving social problems related to poverty (Hoque, 2011). In fact, social business promotes social goals and benefits, but this profit is not shared by the management or the investor and is re-invested to expand the company's positive social impact. Shareholders receive dividends from the investments as a social benefit (Grove and Berg, 2014). The difference between social business and ordinary business is that social business has no idea of getting individual gain in trade affairs (Kickul et al., 2012, pp. 457). However, unlike the businesses which maximize profits, the main focus of social business entrepreneurs is to address social issues, and therefore social business is created for the collective benefit of others. (Grove and Berg, 2014). Thus, the role and contribution of social business is crucial for sustainable development because social business promotes human development through economic, environmental and social sustainability options (Humberg and Kleemann, 2014).

In contrary with the institutions that want to maximize profits, the focus is on solving a social problem, so a social business is being created for the collective benefit of others. (Grove and Berg, 2014). Therefore, the role and mix of social business is important for sustainable development because social business contributes to human development by expanding the assistance from the economical, environmental and social point of view (Humberg and Kleemann, 2014). In fact, Yunus sees that social business allows a feature that does not belong to non-profit organizations to promote entrepreneurs' self-sacrifice and attract investors (Peterson, 2015). In general, social business is managed as a long-term business. This business generates revenue from its activities and is driven by long-term impacts-not within donations per year (Wimmer, 2012, p. 195). Muhammad Yunus has recommended seven principles for social business to understand its inherent characteristics. The characteristics are the following:

1. The most important objective of a social business is to alleviate poverty and other socio-economic problems for what the society is largely concerned. The idea suggests that the problems should be eliminated or reduced by using a business model.
2. In no way, the core objective of the firm will be maximizing profit for the business over social objectives.
3. The firm engaged in social business must achieve its economic and financial sustainability so that it does not need to depend on constant charity or donation.
4. Investors will be entitled to take back their investments but they are not permitted to take their business profit. The profit will be reinvested fully for further development of the project or to create any other social impact.
5. The firm engaged in social business must be environmentally concerned.
6. Workers will be given a competitive compensation package and with a better working condition than competitors.
7. Social business would be conducted and operated with pleasure because it holds a purpose, self-satisfaction, and self-sacrifice.

Discussions in connection with the formation of social business are also important. The poors can participate as the owners of the company or as a part of their products and services in social business. According to this conception, social business is divided into two categories: even the produced product is intended for the poors they would start working with any earnings. (Yunus 2007, 2010). By implementing social needs, it is also possible to help poor people who are the main goal of social business.

2.1. The 1st type of Social Business: Commodity and service producers for poors

This kind of social business is a type of business owned by investors who do not suffer losses, do not distribute dividends, invest in the solution of a social problem, and invest all their profits to further expansion and improvement of business. The first type of social business is focused exclusively on a social intended works. The produced product or service i.e. is in the interest of poors and is addressed to the solution of particular social problem. For example: Grameen-Danone is a sample of this type of social business. It is a "Shokti Doi" yoghurt produced in the Bogra factory in Bangladesh. Bangladesh produces yogurt which enhances the necessary additives due to the lack of micronutrients in poor children. This business is struggling with poor nutrition. Adolescents will grow healthy if they consume two "Shokti Doi" yogurt per week for about 8-10 months.

2.2. 2nd type of social business - Producers of Commodity and services for the poors.

These types of social business products are produced by the poors and exported to an international markets, employees (poors)can take benefit from this profit. The second type of social business, taking benefits, whether directly or indirectly can increase their work in

maximium level, while it is related to the poor and the disadvantagers. The product can be produced by the poors, but when it is exported to an international market, net profit can benefit the employees. Grameen-Otto and Grameen Bank are examples of the 2nd type of social business. It must be pointed out that the Grameen Bank belongs to the poors, and its a combination of both types of businesses in this bank, and provides financial services that are not previously existed (without any guarantees for revenue generating activities with soft credit). These financial services relate to the poor, especially women. Today, social businesses exist in developing and developed countries alike. Although many are still in the early phases of development, demonsrtrate the potential scale of these ventures. Most important, however, are the social and business benefits that these organizations deliver.

Table 1: A Social Business Approach Offers a Range of Social and Business Benefits (BCG analysis)

Social Benefits	**Business Benefits**
Provides innovative solutions to social problems Yet requires a clear value proposition tailored to customers` needs	**Creates greater lasting social impact than traditional donation-based corporate social responsibility (CSR) programs** The approach business principles and draws on core capabilities
Creates results that last well beyond the initial investment Reaching financial sustainability is a challenge that requires a thoughful business model	**Provides new opportunities for learning and innovation** Understanding new markets and customer segments can lead to new commercial opportunities
Empowers benneficiaries by transforming them from aid recipients into consumers with choices Pricing must be adapted to ability to pay	**Improves employee motivation and retention** There is greater enthusiasm and pride among involved staff, potential recruits, and all of the company`s stakeholders
Improves accountability by using sales figures as a built-in mechanism to evaluate user acceptance There must be combined with measures showing the extent to which the most disadvantaged are reached	**Offers the potential for a positive impact on the brand** Gains can be achieved if the business is carefully managed and tangible results are achieved
Leverages the business mindset to increase efficiency Systems for tracking social impact must be integrated with management systems	

3. SOSIAL BUSINESS IN POST SOVIET COUNTRIES

3.1. Russia

World experience has shown that one of the successful and effective tools for solving social problems over the last 30-40 years was the development of a social business enterprise. The first Russian organization dedicated to social business and social entrepreneurship was established in 2007 and is called "Our Future" as a fund of social programs (www.nb-fund.ru). The Social Foundation of "Our Future" operates in the following areas:

1. Identifing types of support for the best business ideas and implementation and improvement of projects.
2. Organising Training and consultings for entrepreneurs, information support, donation and credit support, co-financing of best social projects.
3. Dissemination of information via Mass media for creating positive public opinion on social business and entrepreneurship in society.

4. Mutual experience and exchange programs with both local and foreign non-profit organizations and business partners working in the field of social entrepreneurship.
5. Involve new members and find new ideas in the field of social business and social entrepreneurship.
6. Applying social business ideas to existing and newly created enterprises.

133 social projects were supported by financing 297.5 million rubles in 47 regions implementing social programs over the past seven years (http://www.nb-forum.ru/). Every year since 2011, the "Goodwill Award" has been announced to support social business. The competition created by the Regional Social Programs Foundation of "Our Future", was announced for those contributing to the development and promotion of social entrepreneurship and social business in Russia (http://www.impulsdobra.ru/). In his speech at the plenary session of the All-Russian Forum "State and Civil Society: Cooperation for Development" in January 2015, Vladimir Putin underlined the importance of business development in social sphere. "If the future crisis is inevitable, it is important to protect the most vulnerable populations. After this speech, "We must learn to combine targets: to limit inflation and stimulate growth (http://www.kremlin.ru/news/47173)." the social business area began to develop in Rssia. At present, the main organizations for social business in Russia are the follows:

1. Annual social business forum was held with the support of Ministry of Economic Development of the Russian Federation.
2. The foundation of "Our Future"
3. Center for Social Entrepreneurship and Social Innovations of the Higher School of Economics. Conducts research and consultation on social business and social economics.
4. The Russian Microfinance Center was established in 2002. Its two main functions are to increase the availability of financial services for small businesses in small towns and the development of start-ups.
5. Oxfam (UK) Representation of Russia was opened in 2003. The organization's mission is to combat poverty. Oxfam employees have developed small businesses in many cities in Tver, Tula and Yaroslavl.

3.2. Eastren Europe Post Soviet countries - Ukraine, Belarus and Moldova

3.2.1. Ukraine

Social Business and Social Entrepreneurship Conceptions exist in Ukraine in the 2000s. But it has not yet reached the desired level. In 2006, the US-funded Public Relations Network (UCAN) project was presented in Ukraine. American experts conducted trainings for representatives of social organizations. Later, the US government announced a business plan competition and provided grants for the creation of a social business. As a result of another initiative in 2010-2013, British Council, "East Europe" and "Vidrodzhennya", audit company Pricewaterhouse Coopers, "Erste Bank" were included to the Consortium for Promotion of Social Entrepreneurship in Ukraine. The Ukrainian State Entrepreneurship Assistance Fund, a state-owned non-profit organization, also participated. However, after the change of government, the state structure decided to withdraw. The predicted cooperation remained only on paper - in a signed memorandum. This time the trainings were conducted by the British, not by American experts. Business plan competition was announced. However, the winners did not receive a privileged loan from Erste Bank. And then these start-ups had to forget about their capital - the owner of Erste Bank changed and became Fidokombank. At the same time there exists the Ukrainian Social Academy in Ukraine, which teaches social entrepreneurship and social business, helps build and supports existing social entrepreneurs. At the end, we will talk about one of the successful examples of social business in Ukraine. Flour products were created by "Nut House"-ı NGO "People's Help-Lviv".

It was necessary to finance the integration program of women into crisis situations. They are provided with social worker and psychologist who will help them to return to their normal living conditions for 14 months. It was the women who propagated the idea of baking. The founder of social business, Yuri Lopatinsky, says the first fund has an Austrian grant because the local government was not ready to give a small amount of money in the budget. Today many people know about " cookies for good work".and support (https://zn.ua/economics_of_regions/).

3.2.2. Moldova

Like in the Moldovan village, women are the most vulnerable and needy people in Ukrainan village today. Especially who brings up children. There is no permanent job and at the same time mobility is lost, you can not leave everything. Today, the "Mara Woman" project is an officially-designed workshop for women in Skoren's village. Elena set up a social business to find a job for rural women. She has passed a long way to the realization of an idea. This was not the waste of time. Today, the Mara Woman project is a workplace where women are officially employed in the village of Skoren and create weaving accessories sold to many socially responsible clients. The revenues from the Mara Woman project are reinvested in new social projects (https://mobiasbanca.md).

3.2.3. Belarus

Unlike Moldova, Ukraine is relatively poor developed, and a lot of measures have been conducted for social business and social entrepreneurship. In 2009, the Belarusian Public Economic Portal was created (http://soccoop-by.info) and trainings and seminars on social entrepreneurship and social business in different cities have been implemented. In 2011, the Mae Sense crowdfunding platform was launched. In 2013, the first Social Weekend contest for social projects was held. TALAKA platform was created in 2014, within which a social entrepreneurship education project is being implemented, including offline courses and web-seminars In 2014, within the framework of the Second Social Forum, the section of "Social economy and social partnership" was presented, where the development perspectives of social entrepreneurship were discussed in Belarus. In July 2015, a working meeting was held in Belarus to discuss the development perspectives of social entrepreneurship (http://abad.gov.az/).

3.3. Transcaucasus Post Soviet countries - Azerbaijan, Georgia and Armenia

In comparison with Georgia and Armenia, social business in Azerbaijan has recently begun to develop. Thus, the first example of social business in Azerbaijan is to support the active participation of citizens in the socio-economic development of the Republic of Azerbaijan, the development of small and medium enterprises, increase the employment level of the population and the formation of competitive households, according to the Decree of the President of the Republic of Azerbaijan dated 23 September 2016 "ABAD" - a center that implements socially-oriented projects (http://abad.gov.az/). There are also the samples of social business, such as small, medium-sized entrepreneurship, each created with a social mission. For example, BUTA Art & Sweets, WoWoman Azerbaijan, Green Baku, Azerbaijani Socks, Incebelli, ObaNatur, MyBostan.com, Talent Port, VeloKuryer. On June 21, 2016, Nobel Peace Prize Laureate, professor Mohammad Yunus participated in the international conference on "Social Business - The Road to Development", organized by the Azerbaijan State Economic University and the International Eurasia Press Fund.(IEPF). The Nobel Peace Prize Laureate Mohammad Yunus made a lecture on "Social Business - The Road to Development" at the Conference. Within the framework of the conference, the Yunus Social Business Center (YSBC) was set up at UNEC. The memorandum of understanding on cooperation between UNEC, YUNUS Center and International Eurasia Press Fund (IEPF).

The document envisages the development of mutual cooperation between the parties, the recognition of professor M.Yunus's ideas on poverty reduction and the implementation of the Social Business Concept. Since its establishment, YUNUS Social Business Center has provided various workshops, trainings and projects to convey the Social Business Concept and its relevance to people, especially young people. The final project is an incubation program called Social Business and Social Entrepreneurship. Within the framework of the program the start-ups will be able to realize social business projects .The goal of the program is to help young start-ups and support their social business ideas through various resources. The program operated in 4 directions (education, technology, health, agriculture). 4 winners were selected and each team provided financial support by the university (http://unec.edu.az/).

3.4. Northern Europe (baltic regions) Post Soviet countries-Lithuania Latvia and Estonia

The social business in Lithuania has begun to actively develop since 2004 when the country joined the European Union. At the same time, a separate law on social entrepreneurship was adopted and all activities were directed to the development of rural areas. The LEADER (Rural Development Program for Lithuania) program, which is affecting 99% of the villagers, and a total budget was about one million euros. There were many volunteer jobs in these projects, and a special law certainly helped. Today there are more than 200 social business models in Lithuania, of which 4-5 are particularly innovative and successful businesses. There are - "Lech Lech desigh", give "second chance" for clothes businesses among them. At the same time, 95% of their clothing and accessories are made of recyclable materials and people suffering from various diseases are involved with professional designers. Lithuania is considered to be the most developed country among the post-Soviet countries, even among the European Union countries. Beginning from April 2018, the law on social business has been enacted in Latvia and a rapid development process has begun. Thus, there are many successful New Do (r) Riga, Reach for Change Latvia, Inkubator Creative Industries, etc. examples of social business in Latvia. There are organizations that support the development of social business in Latvia through information support and public training. These include : Social Entrepreneurship Association of Latvia (SEAL), Social Innovation Center (SIC), and Youth Center for Self-Development, Competence and Social Business (OiSTABA). Examples of social business in Estonia: Vihasoo youth camp (http://vihasoo.ee/baza.html), youth club, youth club, training center for adults, Lasnamäe school of interest (http://www.lhuvikool.ee), Matveyka Family Center (http://pereprojekt.jimdo.com), NGO"IndependentLife" (http://armasasi.blogspot.com), NCO Labor Center “Töötahe” (http://www.tootahe.ee/index.php?lang=russian).

Social Business in Estonia:

- Mainly with Harju County (including Tallinn) and Tartu (including Tartu)
- Most micro-organizations with 1-4 employees
- 1/3 offer social security services
- About 66% of profits are generated by business activity.
- About 1/3 does not receive gift and extra support.
- Increase of business income in the sector by an average of 18%, an annual increase of 7%

3.5. Central Asia Post Soviet countries - Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmanistan and Tajikistan

In comparison with the Baltic states, the post-Soviet countries of Central Asia still take the first steps in social business. However, as in every society, there are also various social problems in these countries, and social business can be a means to solve them. Social businesses in these countries remained theoretically and have very few practical examples.

3.5.1. Kazakhstan

There is insufficient information on the concept of social entrepreneurship in Kazakhstan. This is one of the results of a survey conducted by the British Council (British Council). The research was provided to the Information Center correspondents within the framework of the I-SEED: Social Entrepreneurship and Education project implemented jointly by the British Council with Chevron. The survey involved more than 200 respondents: social entrepreneurs; employees of organizations supporting social entrepreneurship; activists interested in this line. The majority of respondents (70%) are the most accurate definition of social entrepreneurship: "Social entrepreneurship is a type of job that you should think of as an entrepreneur and calculate potential risks and opportunities and addressing all the costs and benefits ethics and the solution to your social problem." At the same time, 69% of respondents think that social entrepreneurship is a very complex concept that has no definition. At present the most common answers for social entrepreneurship development in Kazakhstan are: Increase of social entrepreneurship (58%) Relevant legislation (55%) Training courses and trainings on social entrepreneurship (51%) Public funding (40%) creation of single information resources on social entrepreneurship in Kazakhstan (40%). The most relevant areas for social enterprises in Kazakhstan are: job creation for vulnerable people (78%), environmental protection (54%), education services (54%) and healthcare services (45%) (https://kapital.kz/business).

4. CONSLUSION

Development of social business plays an indispensable role in raising the level of wellbeing, leading to the elimination of unemployment and poverty reduction, the development of small and medium-sized businesses, and the long-term solution to social problems in society. Social Business promotes the development of vulnerable areas in the country. That is why it is necessary to create favorable conditions for social business in the country, to instil this concept for people, especially must be one of the priorities for post-Soviet countries, which is in transition to market economy condition. There are several examples of social business in the world practice that are gradually becoming global and transnational. It is possible to go to different strategic alliances with them and make suggestions to invest in post-Soviet countries. That is, they can explore certain problems in these countries and produce or service commodities in the solution of these problems. Our suggestions for the development of social business in Post Soviet countries:

1. Adoption of the law on social business and entrepreneurship.
2. Opening specialized education centers at universities. An example of this is the role of the Yunus Center in Azerbaijan.
3. Creating social business and entrepreneurship programs at universities.
4. Organize special courses on awareness raising, seminars on social business and entrepreneurship with financial support of small and medium enterprises.
5. Providing extensive financial services to existing and emerging socially-oriented entities, including grants and investments.
6. Broadcasting of successful social business via the media. (PR)
7. Interaction and support of civil and commercial sectors to enhance the role of social entrepreneurship
8. Ensure government funding for the best ideas and projects.
9. Expanding cooperation with government, regional executive bodies, and representatives of social business at the state and regional levels.
10. Collaboration with international social business companies, assessment of strategic alien capabilities.

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BAYESIAN APPROACH TO THE REDUCTION OF INFORMATION ASYMMETRY IN ENTERPRISE

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ABSTRACT

Nowadays the processes of making and implementing managerial decisions are complicated by the asymmetry of information or its incompleteness. The article explores in detail the problem of information asymmetry in the enterprise and its consequences and gives recommendations on the practical application of information technologies for its elimination based on the Bayesian approach.

Keywords: *Decision making in uncertain states, Information asymmetry, Naive Bayes algorithm*

1. INTRODUCTION

Today the amount of information grows with a huge speed, but processes of acceptance and implementation of administrative decisions become complicated in view of its asymmetry. Big data technologies create a possibility of "special inquiries" for the purpose of elimination of information incompleteness and increase its transparency. It becomes possible when connections between productions, supply and demand are formed as result of identification of the hidden relations, templates and tendencies in data. The purpose of work is the research of an ability to apply new technologies to the management functionality associated with the processing of large volumes of information. Achievement of this goal requires the solution of the following tasks:

1. To investigate methods of receiving and aggregation of data from different sources, mutual and expeditious exchange of reliable information between organizational structures. All these processes require the development of analytical tools in the enterprise.
2. Taking into account the possibility of variants for situations with information asymmetry in making complex management decisions, to analyze the consequences of the problem of information uncertainty and incompleteness, considering these decisions as a concept of strategic orientation and an argument in favor of increasing the information transparency of the company.
3. To investigate the use of information technologies in the protection of confidential data, forcing enterprises to analyze more thoroughly the issue of ensuring the safety of information.
4. To investigate the specific consequences of information asymmetry in the enterprise and provide recommendations on the practical application of information technologies on its reduction by Bayesian method.

2. LITERATURE REVIEW

One of the negative consequences of high-intensity data circulation at enterprises Nikitina (Nikitina, 2011, pp. 61-65) calls information uncertainty situations arising through explosive growth of the information amount; while the task of monitoring and regulating the processes of achievement the set goals is being formed (Akerlof, 1970, pp. 488-460). In most cases decision-making is carried out in the conditions of a lack of information therefore, the qualitative analytics without qualitative knowledge is impossible. Paraphrasing the well-known phrase of Archimedes "Give me a point of support, and I will move heaven and earth", Maier-Shenberger (Mayer-Shenberger, Kuker, 2014) accents that today the huge amounts of data having an opportunity to transform all world data volume. The intensification and globalization of information streams has allowed identifying links and finding semantics in the integrated data, which do not have any sense, whether they are separated. Daas (Daas, Puts, 2014, pp. 22-31) calls such situation "mosaic" effect. Holmstrom at (Holmstrom, Milgrom, 1991, pp. 24-52) writes that the quality of the made decision quite strongly is determined by degree of readiness for information providing. Kudzh (Kudzh, 2016, pp. 23-27) connects a problem of such information asymmetry with complexity of processing of information's large volumes for expert estimation. Zhou (Zhou, 2013, pp. 24–25) sees the solution of this task in providing experts with the most objective data on a problem with the help of probabilistic methods. The relationship between data and their interdependence are inherent to the internal logic of large volumes of data. It allows finding nonconventional ways for the solution of planning problems and methods of plans' updating even after their acceptance, making macroforecasts without prejudice to primary activity in connection with temporary logs and strengthening control in real time (Liu, 2015, pp. 57–66). In this paper, an example of processing of hypotheses by means of Bayesian strategy will be reviewed. This strategy will be used to make a decision after processing information by certain algorithm. Considering a special role, which data play in education, our example concerns the information processing circulating in high school. These data accumulate a huge number of information on the person, since his deep childhood: this information includes data obtained in kindergartens, schools, colleges and universities, in institutions of professional development and vocational courses. The example considers only one aspect of the information asymmetry at university, concerning the employment of future graduates, since the processing of the person's formation involves a training data set, containing several hundred thousand elements and a large number of features (Vasyutinskaya, 2016, pp. 14-20). In the example, the Bayesian algorithm is simple and extremely convenient for working with large data sets, the advantage of which lies the assumption of features' independence (Foreman, 2016).

3. RESEARCH METHODOLOGY

In the solution of specific management problems, the creation and practical implementation of new methods and approaches to the development of socio-economic projects and programs becomes of particular urgency. To achieve this goal, the following tasks were set and solved in this paper:

1. The presence of huge amounts of unstructured information in the enterprise and the impossibility of its processing by standard means contributes to the concealment or loss of useful, valuable information when making managerial decisions. The paper explores how new technologies can meet complex management needs to eliminate problems caused by the circulation of information in the enterprise, thereby reducing its asymmetry.
2. Today, information in the business environment is considered not as a service, but as a product with all its inherent properties, advantages and disadvantages. The problem of information asymmetry of the enterprise and its consequences are investigated.

3. The organization's information security necessarily provides the protection of confidential data. It is shown that the provision of reliable information security in the information system involves the introduction of modern technology products to protect personal data and confidential information.
4. Informational asymmetry can be reflected in various facts and trends taking place in the enterprise. The specific consequences of information asymmetry are investigated and recommendations are given on the big data practical application to eliminate it.

4. RESULTS

Informatization in the enterprise management system generates a huge amount of extremely diverse and rapidly growing data; requests for their processing give impetus to the development of new analytical platforms. These changes are the main reason for the surge in the popularity of the big data concept. However, big data consist primarily of "raw" information, to find meaning in them; advanced technological resources of business management are needed. We will notice that asymmetry of information is shown both in its distribution, and in its acquisition – in our digital age there are unlimited opportunities for information search, but at the same time, there are no guarantees for its reliability. The fact that unstructured information increases the threat of data confidentiality in the enterprise, because data process arrays of complex, heterogeneous, uncertain nature, and spontaneous combinations of these data may contain certain characteristics that facilitate the disclosure of private information. This is an important issue when distributing microdata arrays from big data sources. Modern high-tech information products reliably protect personal data and confidential information for large-scale calculations in any distributed environment (in parallel computing systems, multiprocessor architectures, multithreaded, multitasking technologies, etc.) (Muller, Stallard, Warren, 1996). A distinctive feature of these technologies is a flexible response to changes in the entire IT infrastructure of the enterprise (adding new versions, functions and tools to an existing platform). In addition to high-tech products, national statistical offices and international organizations have clearly defined rules, which are accurately determined by the legislation when collecting, processing, analysis, distribution, preservation, protection and use of information in the activity. These laws and the corresponding strategies are designed to provide the rights of citizens for protection of personal information confidentiality, promoting thereby strengthening of their trust to the government and private institutions. In our article, we model a competitive job market, in particular, the change in market outcomes after the use of big data. We note that there are many uncertainties about the future and the impact of data on the job market (Widenhofer, Ytterstad, 2017). Therefore, we are building a flexible structure that covers a wide range of plausible results. In the study of complex social and economic systems, which require a high degree of uncertainty or information asymmetry Bayesian approach is very perspective. In the proposed paper, a mathematical apparatus is developed on the base of naive Bayes algorithm (NBA) that allows combining the available a priori ideas about the object with selective information with the assumption of signs' independence (Aliyeva, 2015, 257-262). In reality, sets of completely independent signs are extremely rare. Under an unlimited increase of sample size, Bayesian estimates coincide with classical estimates. That is why NBA gives a more effective result when applying to decision-making tasks. In our model, we assume that we have a set of university graduates with a density of 0 to 1, belonging to two categories - those who can expect to find work faster (experience, knowledge, assessments, etc.) and all others. We denote these categories by $k=H, L$, respectively. Employers often classify graduates into different segments based on various observable criteria. In these segments, we believe that there are still differences in intellectual, business, qualification and other status, which are explained by more intangible and unobservable factors. Therefore, our model will allow us to analyze these segments, and then we can think of our graduates as a specific segment of applicants.

We denote the number of graduates with a low employment rate through θ, while the remaining people with a high employment rate are 1-θ. Note that the parameter θ can vary. In addition, we assume that there are two types of graduates in each category: with a high probability of acceptance to one or another group, and with a low probability, which make up four groups. Next, we determine the probability of investment's loss in the formation of a particular student D as p^i, $i = l, h$, where $p^h > p^l$, which reflects individual risk. We denote the number of persons with low probability in a group with a low coefficient as t_L, while the number of persons with low probability in the group with a high coefficient is denoted as t_H. The total amount of individuals with a low level of probability is equal $\tau = t_L + t_H \leq 1$, and high probabilities will be $1 - \theta + \theta - t_L - t_H = 1 - \tau$. Then we can determine the average probability of employment across the population as $\bar{p} = \tau p^l + (1 - \tau)p^h$. The average probability of employment for the group with a low coefficient is $\bar{p}^L = (t_L/\theta)p^l + ((\theta - t_L)/\theta)p^h$, and the average probability of employment for the group with a high coefficient is $\bar{p}^H = (t_H/(1-\theta))p^l + ((1-\theta-t_H)/(1-\theta))p^h$. We determine the social gradient of the coefficient when the proportion of persons with a low probability level is higher for the group with a higher coefficient level than for the group with a low coefficient, that is, $t_L/\theta < t_H/(1-\theta)$. Inequality arises by adjusting the number of persons for the respective sizes of each category. The result obtained from this inequality is related to the average coefficient in each group, where $\bar{p}^L > \bar{p}^H$. For incompatible events $H_1, H_2, \ldots, H_i$ that constitute a complete group, a posteriori probability is calculated by the Bayes theorem, where $P(H_i)$ is the a priori probability of the event H_i, $P(E_j|H_i)$, $j=1,\ldots,J$ is the conditional probability of the evident E_j, provided that the event H_i occurred, and the event evident E_j has a nonzero probability (i.e. $P(E_j)>0$). Before applying the NBA, special attention should be given to preprocessing data. Initially, it is necessary to determine the a priori distribution of the desired multidimensional parameter; for a fixed parameter, to obtain the initial statistical data x_1, $x_2, \ldots, x_n$ with the corresponding distribution laws; to calculate the corresponding probabilities, create a likelihood table and using the Bayes theorem compute a posteriori probability for each data class. Work with data means "elimination" of unnecessary data by promotion of some hypotheses and their subsequent verification on the validity. In the considered case we denote these hypotheses as $\{H_t, t=1,\ldots,I\}$; the evidence supporting these hypotheses will be denoted as $\{E_j, j=1,\ldots J\}$. Each t-th hypothesis is confirmed by suggested hypotheses, a priori probabilities of the truth of the suggested hypothesis, a posteriori probabilities of the truth of the suggested hypothesis, the probability of realization of the evidence even in the case of hypothesis' disproof. The key element of the considered methodology is the calculation of the price of evidences $O(E_j)$, $j=1,\ldots,J$. The Bayesian approach is based on the idea of the validity of the suggested hypothesis. Even a negligible a priori probability can successfully transform into a posteriori probability when big data are received (Ramachandramurthy, Subramaniam, Ramasamy, 2015). The advantage of this approach is a consistent "enrichment" of the proof of hypotheses' validity, when a priori probability at each iteration of processing by big data, being guided by evidences, is modified into a posteriori. As an example, we study the impact of information asymmetry in the university on the future employment of young specialists. Our task is finding out which hypothesis with a particular evidence is reliable. The research is being conducted on data taken from (Trifonov, 2015). First, we need to find out the reasons for the appearance of asymmetry in the university. As reasons we accept the following hypotheses:

- H_1 – information asymmetry in the delivery of educational material;
- H_2 – information asymmetry in the perception of the educational material (the dynamics of the perception of the teacher);
- H_3 – static information asymmetry due to the state (the initial state of the student is characterized by the information asymmetry of professional self-determination).
- The following statements will act as evidences:

- E_1 – value of repeatability factor of the same transactions for decrease of information asymmetry in education market;
- E_2 – low characteristics of subjects' awareness;
- E_3 – overcoming "information gap" between labor market and education.
- E_4 – influence of computer literacy.

The initial a priori information about specific hypotheses, the evidence obtained after processing by naïve algorithm, and the subsequent calculations, we fix in the following table:

Table 1: The initial a priori information about specific hypotheses and evidences (*Authors*)

H	**1**			**2**			**3**		
P(H)	0,92	0,92	0,92	0,81	0,81	0,81	0,6	0,6	0,6
No. of evidences	0,8	0,15	0,1	0,8	0,1	0,6	0,15	0,1	0,6
P(E|H)	0,4	0,8	0,9	0,3	0,8	0,8	0,9	0,6	0,8
P(E|¯H)	0,8	0,15	0,1	0,6	0,12	0,4	0,4	0,2	0,4
P(¯E|H)	0,6	0,2	0,1	0,7	0,2	0,2	0,1	0,4	0,2
P(¯H|¯E)	0,2	0,85	0,9	0,4	0,88	0,6	0,6	0,8	0,6
P(H|E)	0,8	0,98	0,99	0,68	0,96	0,89	0,77	0,81	0,75
P(H|¯E)	0,97	0,73	0,56	0,88	0,49	0,58	0,2	0,42	0,33
P(H|E) -P(H|¯E)	0,1	0,25	0,42	0,20	0,47	0,30	0,57	0,38	0,41
P_{max}(H)	0,99			0,99			0,9		
P_{min}(H)	0,13			0,13			0,04		
Class of hypoth.	Probable			Probable			Probable		

The results of Bayesian classifier are reflected in the next table:

Table 2: The prices of evidences after first, second and third iterations for $O(E_j)$, j=1,2,3 (*Authors*)

The price of evidences	***O(E₁)***	***O(E₂)***	***O(E₃)***
	0,321111	0,185341	0,170165
	0,825227	0,690449	0
	1,292974	0	0
	0,724738	0,566734	0,532106

After first iteration, the third evidence has the highest estimation (figure1) and we pass to the next iteration. In the constructed diagrams, columns denote the probabilities of the hypotheses.

Figure following on the next page

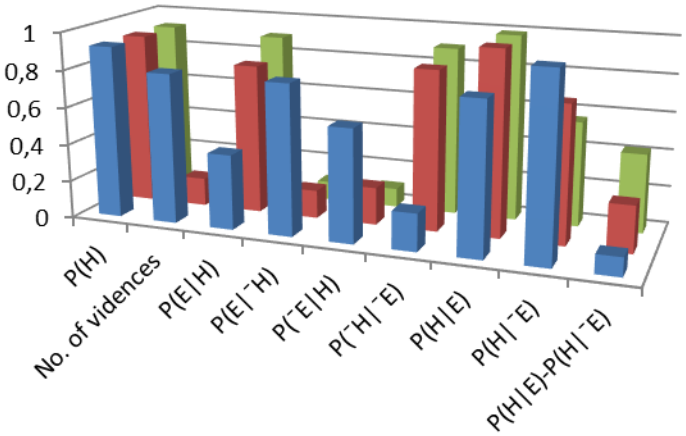


Figure1: The results of the first iteration (*Authors*)

After second iteration the second evidence has the highest estimate. We pass to the next iteration (figure 2).

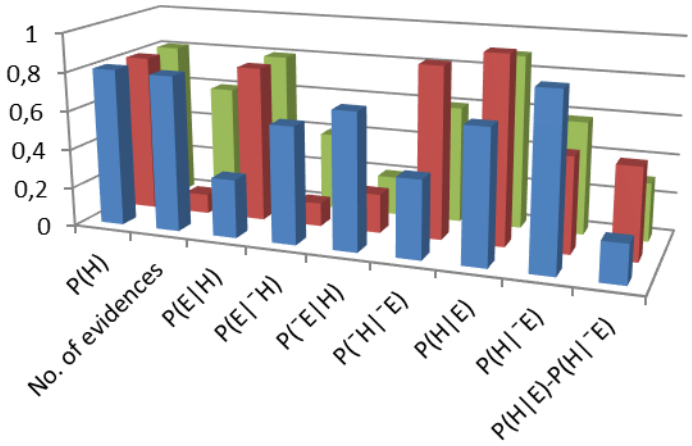


Figure 2: The results of the second iteration (*Authors*)

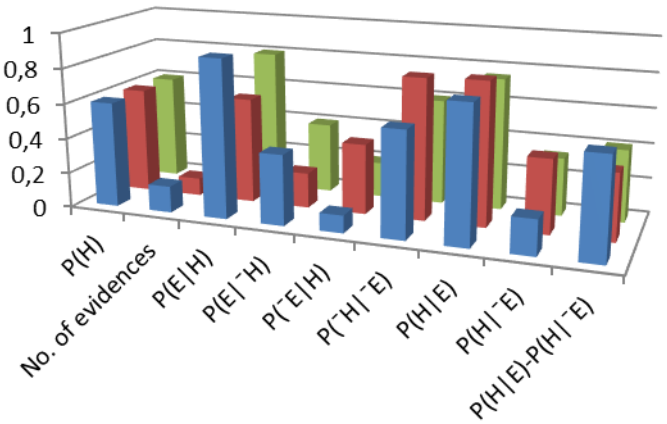


Figure 3: The results of the third iteration (*Authors*)

According to the calculations, the main reason for the information asymmetry is the static information asymmetry, and data visualization shows that the first hypothesis with the fourth evidence is reliable (figure 3).

5. CONCLUSION

In the very nature of the organization structure there is a certain "conflict of interests, reflected in the functional and professional differences between departments, the essence of individual, qualifying and business qualities of employees, the priority of personal interests over corporate ones, which can only be limited, but not excluded. On the asymmetric relations between the leaders and subordinates, the administrative vertical is built. Asymmetry as a characteristic feature of managerial relations promotes the emergence of social interests and forms a communicative mechanism of social progress. The modern environment is subject to constant changes and perturbations, which challenge traditional economic and business concepts. However, as the resources promoting distribution and acquisition of information increase there are more and more opportunities for decrease of its asymmetry. The article proposed a method for processing complex information queries using big data technologies based on the Bayesian approach, that make possible to extract the necessary information from many different sources, providing a higher return on their use, reducing the asymmetry of information and increasing its transparency. Bayesian approach may provide some results, even if there is absolutely no sample data. This is due to the use of the a priori probability distribution, which does not change in the absence of statistical data, and the a posteriori distribution recounted by the Bayes theorem coincides with the a priori distribution. In real economic systems, the development of non-standard, relevant, effective and, most importantly, interpreted knowledge becomes paramount in order to support the adoption of proper managerial decisions. Using this approach, carrying out additional experiments to refine the data states in the study of the various nature of decision-making problems is possible. The most important resource and tool for acquiring this knowledge is a deep and comprehensive analysis of data describing possible cause-effect relationships in social and economic systems. This is exactly the role that modern information technologies play today.

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THE PROGRESS CLAUSE IN FOREIGN INVESTMENT CONTRACTS

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ABSTRACT

This study aims to reflect on the principles to be followed in the concrete consideration of the interests of the contracting parties in foreign investment contracts. The purpose of this reflection is to achieve a fundamental reference framework that can serve as a basis for decision-makers, judges or arbitrators faced with the task of resolving disputes arising from foreign investment contracts. The most common mechanism for settling disputes in this venue is international arbitration. In this research we analyse the phenomenon of arbitration as a paradigm in the solution of the emerging foreign investment litigation, its benefits and its contribution to greater legal certainty in the economic relations between the parties and in the social progress of the host state. Considering the legal concepts and the most relevant problems in the relations between the investing State and the host State, we intend to establish a logic based on equity, proportionality and the right balance between the interests of both. We try to find a meeting point between the economic interests of the investor and the social progress of the host State. International arbitration under the umbrella of ISCID, complemented by bilateral treaties (BITs) and investment contracts, requires an approximation of the two main objectives of foreign investment: efficiency in the return of investment and technological and social progress of the host State.

Keywords: *foreign investment contract, social progress clause, arbitration*

1. INTRODUCTION

In view of the economic globalization that has developed in recent decades, there has been an increase in relations between large multinational companies and developing countries, with a lack of direct foreign investment to boost their growth and economic and social development. Foreign investment has thus become a strong and ubiquitous subject in the economic and legal community, awakened by the liberalization of markets and capital, with a set of new legal problems to solve. In this new world order, it is noted that the States of origin of foreign investors enter into agreements with the States potentially receiving such investment, with the purpose of protecting investors, namely securing the desired profit and outlining the legal framework regulating economic-legal relations between the parts. The latter, focused on the economic development of their territory and therefore avid for external capital, often accept agreements restricting their regulatory capacity and administrative power in the conduct and supervision of foreign investment contracts. It should be noted that the implementation of certain government policies aimed at improving the quality of life of the population has, from the point of view of investors, caused real violations of investment agreements. Although the latter contain the panacea of the obligations assumed by the parties, the host States are often limited in their regulatory power, resigning from the functions that are inherent to it, thus infringing upon the most fundamental rights. It is therefore imperative that the host States and the States of origin of the investors adopt a normative framework capable of reconciling and

balancing the interests involved and respect for those fundamental rights. For an effective protection of these Rights, it is urgently necessary to hold the investing entity accountable to society in general

2. LITERATURE REVIEW

According to several authors, foreign investment is an instrument through which companies seek to capitalize, optimize production and access control of natural resources (Bohoslavsky, 2015, pp 4). The colonialist attitude of investors, centered on maximizing profits, has not allowed an effective development and social progress of the populations. (Jacob, 2010, pp16-17). The lack of concern for the protection of human rights has been the subject of reflection by the OECD, the United Nations and the European Union (Perez, 2016, pp 89). Transnational corporations with high economic power involved in investment should view corporate and social responsibility as a strategic factor in the market in which they operate. Their oligopolistic nature tends to divert their behavior from the social focus (Anjos, M. R. 2016, 88-91). To ensure long-term investment and its counterparts, investors must be involved in the social progress of host states (Pego, 2006, pp 44). The social welfare achieved from foreign investment is the main guarantee of business success and stability, both from the investor's perspective and from the host state [Costa, 2005, a), pp 16 and b), pp 21]. In these foreign investment contracts, the usual means of settling disputes is international arbitration, especially under the auspices of the World Bank. However, arbitration is dominated by the principle of contractual freedom and equality of the parties, which, in this case, does not occur, given the state of subjection of the host States, dependent on foreign capital (Soria, 2015, pp 5-6). This paper aims to reflect on all these issues, highlighting the need to reach a balance between the interests involved and their respective protagonists, prioritizing social and corporate responsibility and effective respect for human rights. In short, foreign investment contributes to an effective increase in the welfare and social progress of the population and not to a globalization of poverty (Chossudovsky, 2003, pp 10). Host States should not relinquish their role of caring for the effective public interest of their population. We must not forget that these are contracts with prerogatives of administrative law that cannot be left to the parties' will. The Administration of Host States cannot refrain from taking care of the general interest, since it is not its holder, but rather its servant and, therefore, the law must triumph in the face of arrogance and corruption. (MEILÁN GIL, J.L., 2013, pp 66-67).

3. FOREIGN INVESTMENT AND SOCIAL PROGRESS:"STATEMENT QUESTION"

Foreign direct investment is an instrument that companies use to capitalize, to optimize production and to gain control over natural resources. The investor, through foreign direct investment, acquires a lasting interest in companies located in other territories, thus being able to operate across borders. The investment relationship presupposes, in most cases, the existence of a parent company and a foreign subsidiary, which is under the control of the parent company. It has been understood that such control acquires expressiveness with the ownership by the parent company of at least 10% of the shares or the voting right in relation to the second. Foreign direct investment boosts capital flows, which is why companies can expand their business through subsidiaries located in other states. Foreign investment is of particular relevance in the sectors of natural resource extraction, manufacturing industry and services. Not forgetting their contribution to sustainable development. But to what extent is the investor's contribution to the technological and social progress of the host state ensured in each foreign investment contract? Investment regulations should take into account the political, economic and social specificities of the States involved, the global situation and the international market, not neglecting the living conditions of the populations in the territories where the investment will take place. Today, companies are the protagonists of world economic development.

It is necessary to reflect deeply on its role in the global world with the necessary assumption of social responsibilities and consequently protection of human rights. That said, it is necessary to analyze the means of solving these disputes by means of arbitration, especially that of foreign investment (ISCID), seeking to ascertain whether it is sensitive to social issues or not. These are the issues under review.

4. THE IMPORTANCE OF INTRODUCING A "PROGRESS CLAUSE" IN FOREIGN INVESTMENTS CONTRACTS

The markedly colonialist behavior of investors has shown great disinterest in the face of the needs of the populations affected by the investment. In most agreements, investors are committed to improving the living conditions of populations, including the implementation of schools, hospitals and infrastructure. However, often after the realization of the investment, they forget the fulfillment of the social obligations assumed. It is urgent to hold investors accountable, but above all, the politicians in the host states for the lack of transparency and lack of sense of state in many of these foreign investment contracts. Put simply, it is necessary to introduce in each of these contracts, clauses suitable for the defense of the host peoples, in order to guarantee the general interest of the populations. In this sense, it would be enough to include a clause in foreign investment contracts, which would guarantee the obligation of the investment companies locally to provide technological, economic and social development resulting from the investment itself (MEILÁN GIL, J. L. 2006, pp 33-38). This "progress clause" to be included in each foreign investment contract should ensure that knowledge, training and manufacturing processes are shared between the parties in order to allow a fair share of the economic gains derived from foreign investment. To ensure, in short, that the investor undertakes to ensure the preservation of resources by adjusting production or extraction processes in accordance with technological knowledge and advances in science, protecting local populations and enhancing their economic and social development, the sectors targeted by this investment are often public services of general economic interest. The forecast in each contract of a clause stipulating public service obligations to be carried out in the host State may be, therefore, the factor of rebalancing the interests in presence. (MEILÁN GIL, J.L., 2006, pp 36). It is fundamental to counteract the tendency of a new world order based on the use of the resources of humanity, without equity in the redistribution of profits, which is nourished by poverty and destroys the environment, without respect for human rights and without concern for the well-being and progress population. This principle, based on fairness and proper consideration of the interest of the parties in the interest of the investor, but without prejudice to the general interest of the populations of the host state, must be present in all State conduct, whether in the negotiation of a contract of (MEILÁN GIL, 2013, pp 38), internal or international, or in the implementation of market competition in essential public services or, in the European designation, services of general economic interest (ANJOS, M.R. 2015, pp 29). Another path is unacceptable, unjust and generates potential conflicts of uncontrollable consequences for the fragile economies of the host states, to which political regimes are unstable and conducive to extremisms easy to settle in a context of unjust sharing of the benefits of foreign investment. Most of the existing studies on foreign investment are focused on analyzing the purely economic effects of investment (wealth multiplier effect / accelerator). From our point of view, we have to humanize the analysis. This is one of the reasons for this reflection. The focus of this paper is to highlight the importance of the impact of foreign investment on the social progress of populations. From this point of view, it is an approach focused on the humanization of the law itself, as an instrument of protection that promotes the well-being of the populations in the emerging economies (host states). Multinational companies must, in addition to corporate responsibility, be accountable to their shareholders and clients for their behavior, both in relation to workers and in relation to society in general.

This is a social and corporate responsibility, understood as the set of good practices developed by multinational companies, to guarantee workers' rights and protect the environment of the territory in which they operate (Costa, 2005, pp 46). Such accountability is intended to implement the social welfare of the community, bypassing the lucrative purpose, promoting the evolution, effectiveness and application of the domestic law of host States (Cardia, 2014, pp 18). Business practices should be based on models of economic, social and environmental sustainability. It is imperative to foster dialogue between all the protagonists. In the event of an emerging dispute, an appropriate balance of interests must be weighed, which requires sound, exempt and non-committal arbitration with the parties to the dispute. Nevertheless, the nature and power of the companies involved in foreign investment imposes greater care in order to avoid that the profits of the investment made are entirely absorbed by the investors to the detriment of the well-being of the populations in the host states. On the other hand, it is also necessary to protect the human and social rights of the peoples of the states where the investors come from, since their choice to carry out the investment in other countries is often motivated by the flight to the high social responsibilities that the legislation of the most developed states imposes, in particular, labor law, social protection and fiscal burdens (Chossudovsky, M. 2003, pp 78). In Europe, the European Commission announced in 2011 its new policy on corporate and social responsibility, although the results are still far from reaching the desired one. This responsibility should be a strategic factor for the competitiveness of companies, with a view to combating an inhuman globalization, alien to human rights and leading to an unprecedented globalization of poverty. (Chossudovsky, M. 2003, pp 81). In this regard, the benefits of social peace, risk management, cost reduction, access to capital, customer relations, human resources management and innovation capacity should be highlighted. In short, the social progress of the peoples will guarantee, in the long term, greater political stability, social peace and better reception of investment companies. Corporate and social responsibility must also be a mechanism that fosters good relations between companies, including employees and consumers, fostering sustainable business models that contribute to the increase of trust in relationships, reflected in growth itself (Nunes, 2015, pp 12-13). Finally, "corporate social responsibility is clearly in line with the objectives of the Europe 2020 strategy for smart, sustainable and inclusive growth, in particular with the employment target of 75%. Responsible business behavior is especially important when private sector operators provide public services "(European Commission, 2011, pp 10). Companies are now encouraged to adopt innovative strategies and minimize all negative impacts. In this sense, there are also international guidelines, notably the OECD and the United Nations, which tend to influence the behavior of companies regarding environmental protection and legal discipline of socio-economic relations. In this context, the United Nations has not only implemented a Global Compact to encourage companies to adopt social, corporate and sustainability policies, promoting dialogue between companies, trade unions, non-governmental organizations and others, as well as encouraging the global market, its inclusiveness and sustainability. In order to achieve this, the business community has been mobilized, especially internationally, through the implementation of principles, linked to human rights, namely in the field of labor, environment, anti-corruption and white-collar crime (Anjos, MR, 2016, pp 55).

5. THE IMPORTANCE OF THE “PROGRESS CLAUSE” IN ARBITRATION AS A MEANS OF SETTLING DISPUTES IN FOREIGN INVESTMENT

In view of all the foregoing, we conclude that the introduction of a 'progress clause' in the clauses of foreign investment contracts is also crucial as a guideline for future arbitration decisions in dispute settlement. It should be pointed out, with reference to the famous and recent "Philip Morris vs. Uruguay" decision, that even in the absence of a clause expressed in the foreign investment agreement / agreement clauses, it is the duty of the arbitral tribunal to weigh

interests properly, proportional, fair and consistent with the principle underlying the merits of foreign investment. We argue that this 'progress clause' is an imperative enshrined in the spirit of contract law and the benefits of international trade. We know that investment agreements provide international arbitration as a means of settling disputes. While the investment brings benefits to the two parties involved, there are conflicting interests. On the one hand, investors want to maximize profits, and, on the other hand, States intend to take advantage of this relationship, either through fiscal policies or through the assumption of commitments as a currency of exchange for certain objectives to be attained. The recourse to arbitration also seeks to avoid the performance of the state courts of the host country of the investment. Let us not forget the great skepticism on the part of the investors as to the lack of impartiality of these organs, the procedural slowness, the inadequacy of the national laws and the complexity of the questions to be decided. They also invoke authoritarian political regimes, political instability and a lack of seriousness in the fulfillment of the contractual obligations assumed by host States. Infringement of such agreements gives rise to arbitral proceedings and, frequently, to the condemnation of host States in large amounts of compensation to investors. Thus, the arbitration clause inserted in the agreements is understood as a protective clause for the investment and the investor, with the particularity that only investors can sue the States through arbitration. Such a situation constitutes a genuine breach of the principle of equality between the parties, operating in stark disfavour to host States (Bohoslavsky, 2015, pp 16). The proliferation of foreign investment undoubtedly contributed to the regulatory easing of investment, with greater benefits in favor of the investor. The clauses of fair and equitable treatment, the most favored nation and expropriation are real examples of this. The generalization of standard clauses, general clauses and indeterminate concepts, allows great arbitrariness to the judge. Since the signing of the Washington Convention and the creation of the International Center for the Settlement of Investment Disputes under the World Bank, foreign direct investment litigation has mostly been submitted to ISCID arbitration. ISCID arbitration has been revealed by investors, often condemning host states for allegedly violating their Bilateral Investment Promotion and Protection Agreements (BIT'S). The Philip Morris judgment seems to have announced an inflection in this trend. But it is justified to clarify the spirit behind the defence of foreign investment with the engine of development.

6. CONCLUSIONS

Regulating foreign direct investment is a controversial issue. The national laws of host states, which would be naturally applicable, as laws of the place where the investment occurs, have not been applied to this type of relationship because of the great skepticism of the investors. Their lack of flexibility and adequacy to this type of situation have undoubtedly contributed to their non-application. The option is to apply the rules contained in the agreements or investment contracts themselves and in the Public International Law, which regulates relations between States. An inevitable reflection on the assumption of corporate and social responsibility on the part of the investing companies is necessary (Kaushal, 2009, pp 5). It is important to consider the enormous economic and political power of these investing companies, accustomed to developing their activities in oligopolistic markets and holding a dominant position capable of controlling the political power of the host states (Pego, M. 2007, pp 46). Investment agreements should contain specific clauses capable of obliging their subjects to implement sustainable development, in addition to protecting purely economic interests. This clause requires the introduction of a 'progress clause', which imposes an obligation to promote technological, productive and social progress by the investor. We also know that foreign investment is mainly focused on certain sectors, namely in mining, chemical, iron, petrochemical, energy, gas, telecommunications, among others. These sectors, as we know, are responsible for the emission of pollutants with a strong environmental impact.

Therefore, in the relations between the parties, the corporate social responsibility of the investor should be safeguarded. It is not enough for companies to comply with the law, refraining from causing damage. They must consider in their investment or other costs social responsibility for the technological, economic and environmental progress of the host State. (Pérez, 2016, pp 3). In this context, international regulations are very limited, expressing themselves mainly through soft law standards, insufficient to guarantee the general interest in the host State. (Schreuer, 2010, pp 11). The principles of human rights must be transversal, both to decision-making bodies and to normative production from a state or consensual source. The economic functionality, the basis of foreign direct investment, must be articulated with the protection of those Rights. (Jacob, 2010, pp 3). "Transnational" relations, due to their specificity and interests, make the contractual instruments the pillar of regulation, enhancing the supremacy of business interests. Thus, despite the UN's efforts to include clauses protecting fundamental rights, it is necessary to be more incisive and stronger in including results obligations for the technological, economic and social progress of the population of the host State. It should be noted that the fair and equitable treatment clause has the same meaning as the international minimum standard of treatment afforded to aliens and their property, NAFTA Article 1105 (North American Free Trade Agreement). However, it is necessary to go further by avoiding the discussion about its autonomous guarantee nature, considering criteria of justice, equity and good faith, and respect for human and social rights in presence (Soria, 2015 and Schreuer, 2010, pp 6-7). On the other hand, UNCTAD - the United Nations Conference on Trade and Development - has understood that the standard of fair and equitable treatment is an element of extraordinary importance in foreign investment agreements. Not forgetting that it is the pattern most invoked by investors in investment conflicts (Arenhart, 2013, pp 9). In this context, the introduction of a progress clause appears to be a crucial complement to the rebalancing of the interests of the parties and to serve as a further guiding principle for arbitration tribunals to resolve disputes in this area. It is the obligation of the Contracting States to fulfill their role of defending the general interest in the presence by negotiating the investment agreement / contract. We conclude, citing MEILÁN GIL that "In complying with the legal system, the Administration is serving the general interest specified in the contract. The prerogative, as history and praxis have shown, has not always been exercised in the public interest. Not infrequently it is an imposition that masks the deficiencies of the Administration in the preparation of the contract with the acquiescence of the contractor, exacerbated in times of economic crisis. The abandonment of the prerogative that is proposed is not the triumph of private interest over the public, which is still prevalent, but the triumph of the law in the face of arrogance and corruption." (MEILÁN GIL, J.L., 2013, pp 12)

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ECONOMETRIC ANALYSIS OF THE IMPACT OF HUMAN CAPITAL COMPONENTS ON UNEMPLOYMENT

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ABSTRACT
The main purpose of the research work is to assess quantitatively the impact of the components of human capital vector upon the level of unemployment in the labor market. So that the econometric investigation has been conducted in order to consider the impact of those components of the human capital vector from the state budget to education and health on the level of unemployment. The various methods of econometric modeling have been used during the study. Econometric testing of built-in regression models has shown that these kinds of models are far more adequate in real-time and can be used to foresee and define unemployment levels within the labor market.
Keywords: *causality, education costs, healthcare costs, human capital vector, stationarity, unemployment*

1. INTRODUCTION

According to the classic approach, the main part of the economically active population of the country does not participate in the creation of goods and services, which engendersan unemployment problem, and becomes a severe challenge for the world economy that directly affects the living standards of the population.Currently, this problem reflects itself as a concrete violation of the balance between the "demand and supply" of the labor force in the labor market. It is an undeniable fact that in contrast to the world practice, the unemployment phenomenon in the labor market of Azerbaijan has a number of peculiarities.Thus, the main complications of the unemployment within the society are specifictendencies such as the deepening of social tension and the lack of sustainable economic security in the countrythat can be considered relatively stable. On the other hand, there is no direct linkage between unemployment with demographic factors, wave periods in the economy, and transformation processes in Azerbaijan. Therefore, the main source of unemployment in Azerbaijan should be investigated in other platforms bytaking into consideration the socio-economic factors.So that one of the vital components of the vector that characterizes this aspect is the role of human capital. Consequently, one of the key priorities of Azerbaijan's socio-economic life and economic security is to determine the place, role and development of the human capital in reducing unemployment.

2. THE INVESTIGATION OF THE ECONOMETRIC IMPACT OF HUMAN CAPITAL ON THE UNEMPLOYMENT PROBLEM

During the process of econometric study of the human capital impact on unemployment, we will consider the impact of two elements of the human capital vector - the level of education and health in the unemployment rate of the country. The core reason is that education is considered a focal factor that directly affects GDP by shaping the knowledge, skills,and capacities of the country's population. Simultaneously, the impact of health on this macroeconomic indicator is unambiguous and cannot be a subject of discussion.

Some researchers point out that education as the human capital investment has the capability of creating "value-added" by increasing the knowledge and skills of the country's population generated by their labor earnings.Thus, education not only increases efficiency in the process of production, ultimately GDP, but also weakens the stratification and inequalities among different social groups (Note: we associate this stratification with quantitative characteristics of income and social inequalities). It has to be noted that today, education plays a crucial role in shaping the human capital, which is a significant factor in the success of the economic entity in the market, the country's economic growth, as well as the increase of its scientific and technical potential and capability. [14. V.E.Teymurova, pp.43].The indicators such as the share of investments in education in the country's GDP, distribution of such investments in the public and private sectors, the allocation of expenditure on education from the state budget to education levels, and education expenditures per capita in the country are considered to be morenoteworthy in the quantitative characteristics of education. Another key component of the socioeconomic factorsaffecting the human capital and the unemployment level is the health of the society members, or mainly the health factor.The main reason relates tothe impact of health on economic growth, including GDP. Merelythe healthy individual can act as a productive force for the community providing human capital development, and economic growth in the country [18. Chesebiev. A.A., pp. 35]. The health factor also serves for the effective functioning of education, as it may be of interest to individuals who are only physically healthy and are far more likely to benefit from the capabilities of the human capital. This is the key reason why many researchers perceive allocations from the state budget to the health sector (health costs-HC) as an important investment in human capital development. The estimated duration of life, the number of births and deaths, the specific weight of expenditure on the state budget in GDP, the structure of the investments directed to the area, health expenditures per capita, etc. can be shown the examples of quantitative characteristics of health care.

2.1. Statistical analysis of factors affecting unemployment

The following table summarizes the dynamics of the indicators involved in the research between1995 and 2017 (Table 1) [Internet resources 26,27].

Table following on the next page

Table 1: Time series of human capital indicators

Years	Number of unemployed population (in thousand) (Business segments)	Budget allocations on education from the state budget (in million manats)	Budget allocations on health care from the state budget (in million manats)	Revenues of the state budget (in million manats) (in this order)
1995	583,7	75,2	29,5	316,9
1996	561,2	101,8	40,1	402,6
1997	559,3	112,8	38,8	513,0
1998	554,6	116,3	31,1	465,5
1999	552,6	159	37,2	559,5
2000	514,7	181,8	40,9	714,6
2001	476,7	186,2	42,0	784,8
2002	438,6	191,2	44,8	910,2
2003	400,9	234,8	55,3	1220,9
2004	348,7	294,1	73,5	1509,5
2005	317,8	372,5	115,3	2055,2
2006	291,2	479,1	162,0	3868,8
2007	281,1	723,0	257,2	6006,6
2008	262,2	979,7	346,2	10762,7
2009	260,2	1147,9	402,4	10325,9
2010	258,3	1180,8	429,2	11403,0
2011	250,9	1268,5	493,4	15700,7
2012	243,1	1453,2	609,4	17281,5
2013	236,6	1437,7	618,9	19496,3
2014	237,8	1553,9	665,3	18400,6
2015	243,7	1605,1	708,2	17498,0
2016	252,8	1754,4	702,5	17505,7
2017	251,7	1742,8	704,7	16516,7

Table 1 Analysis of data. The summary of the dynamics of statistical indicators reflected in this table below:

- The majority of unemployed population dynamics
  Dynamics according to the previous year (1995 year – 1,000)
  {1,000; 0,961; 0,997; 0,991; 0,996; 0,931; 0,926; 0,920; 0,914; 0,870; 0,911; 0,916; 0,965; 0,933; 0,992; 0,993; 0,971; 0,969; 0,973; 1,005; 1,025; 1,037; 0,996}
- The dynamics of expenditure on education from the state budget
  Dynamics according to the previous year (1995 year – 1,00)
  {1,00; 1,35; 1,11; 1,03; 1,37; 1,14; 1,02; 1,03; 1,23; 1,25; 1,27; 1,29; 1,51; 1,36; 1,17; 1,03; 1,07; 1,15; 0,99; 1,08; 1,03; 1,09; 0,99}
- The dynamics of health expenditures from the state budget
  Dynamics according to the previous year (1995 year – 1,00)
  {1.00; 1.36; 0.97; 0.80; 1.20; 1.10; 1.03; 1.07; 1.23; 1.33; 1.57; 1.41; 1.59; 1.35; 1.16; 1.07; 1.15; 1.24; 1,02; 1.07; 1,06; 0.99; 1.00}
- Dynamics of the state budget revenues
  Dynamics according to the previous year (1995 year – 1,00)
  {1.00; 1.27; 0.91; 1.20; 1.28; 1.10; 1.16; 1.34; 1.24; 1.36; 1.88; 1.55; 1.79; 0.96; 1.10; 1.38; 1.10; 1.13; 0.94; 0.95; 1,00; 0.94}

The study of the dynamics of the number of unemployed population depicts that there has been a steady decline in this indicator between the period of 1995 and 2017. Overall, this figure dropped off 2.3 times over the same period and reached out 251.7 thousand in 2017. [7. Vasenkova EM, p. 42]

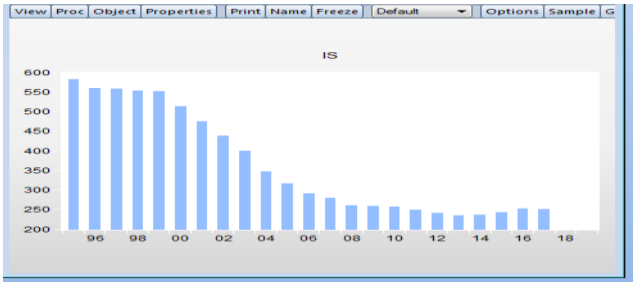


Figure 1: Dynamics of unemployment level change in Azerbaijan

According to the dynamics of unemployment, the overall slowdown was observed in the decline in this indicator shown here, however, the seasonal breakthrough occurred in 2009 and the unemployment rate constituted 87% as in the previous years.As a result of the global financial crisis, within the last five years, the tendency to decrease the number of unemployed in the country has weakened and then relative growth has begun. The systematic analysis of the dynamics of budget expenditure (allocations) on education and healthcare shows that there is a steady growth trend. Thus, the amount of expenditure on education increased up to 2.5 times in 2000 compared to 1995, more than 13 times in 2010, more than 23 times in 2017 and reached out 1742.8 mln. manatAccording to the dynamics of the allocated budget, these indicators were 1.4 times, 14.5 times and 23.9 times respectively, and amounted to 704.2 million manats in 2017. The study of the dynamics of education and health expenditures show that the share of these expenditures from the state budget has remained relatively constant. So thatif thehealth expenditures accounted for about 39% of education costs in 1995, whilst it was 40% in 2012.
On the other hand, the rate of increase in education expenditures has faster than health expenditures, which is still more common in the indicators up to the 2010 year. Thus, only 5 potential years have been required to increase the cost of education twice, while this level of healthcare has been achieved after 10 years.In recent years, there has been some stagnation in the growth dynamics of expenditure on education and healthcare. Regarding revenues of the state budget of Azerbaijan, the analysis of the relevant clusters indicates a steady growth trend. Therefore, this indicator increased by 2.25 times in 2000 compared to 1995, 33 times in 2010, and 52 times in 2017 and amounted to 16516.7 million manats. It should be noted that in recent years there has been a stagnation in budget revenues due to the decline in oil revenues. So thatthe absolute decline was observed in this indicator in 2014. To sum up, there is the direct and indirect links between the level of unemployment and the education and health expenditure components of the human capital vector, as well as the state budget revenues. Thus, it is possible to estimate the quantitative dependence of those indicators through the correlation and regression methods of econometric modeling.

3. EVALUATION ON STATIONARITY AND CAUSALITY OF TIME SERIES OF HUMAN CAPITAL VECTOR

One of the prerequisites for econometric modeling is to determine the statistical characteristics of the time series used during the research process, or more precisely, to define their level of stationarity.Thus, the mathematical expectation and dispersion of the sequence at any moment of time must be evaluated whether stable or not stable. Studies show that determining the stationarity of time sequences is an essential condition that characterizes economic systems. Therefore, since the statistical characteristics of stationary and non - stationary sequences do not coincide each other, they can not be evaluated in the same way.In some cases, the lack of stationarity in time sequences is associated with the overall trend at this time. If this trend is abolished, then the sequences are stationary [2. Gujerati D., p. 750]. The correlogram method wassuccessfully at Table 1 (ACF and PACF auto-correlation functions) to test time series in stationarity.

The failure to apply single root tests (DF, ADF, KPSS,and PP) in order to check the stationarity of the time sequences is mainly explained by the low number of observations in the dynamic sequence. The table given below showsthe outcome of the stationarity test upon the time series of the number of unemployed people. (Figure 2)

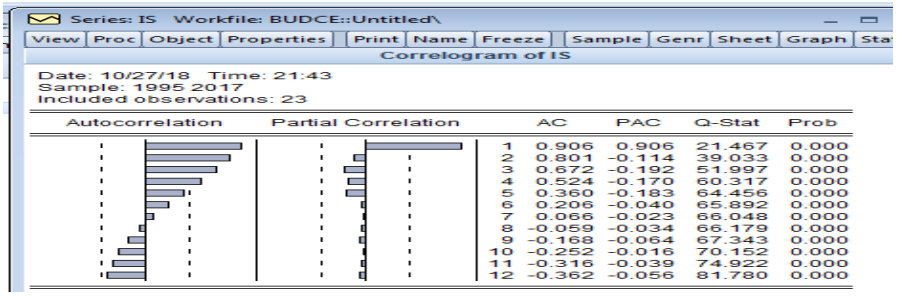


Figure 2: Correlogram of stationarity test of time series of unemployment indicator

The analysis of correlogram shows thatthe time series of the number of unemployed is not stationary, because in this ACF (1) the price is approached to the unit, and then correlation decreases with a sinusoid.If we use the growth function to bring out the time series of the number of unemployedto the stationary level, then the following correlogram will be made for this series (Figure 3).

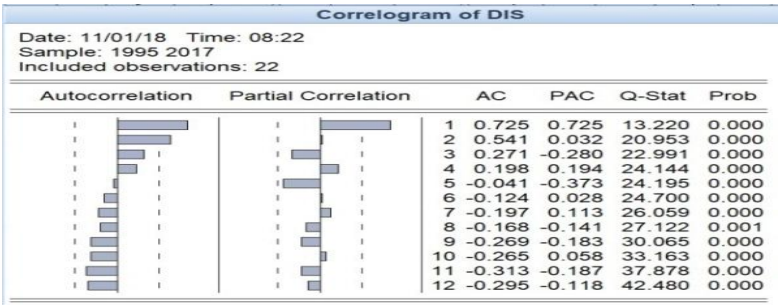


Figure 3: The correlogram of time series of a number of unemployed in stationarity

As can be seen from Figure 3, the unemployed are not at the timelines, but they are stationary in trends. So that, the cost of the ACF (1) autocorrelation function constitutes 0.7. Note that similar results were obtained while checking the stationarity of other time series (health, education, budget sequences) in Table 1. That is, in the first approach, the time series were not stationary, but then were stationary due to their growth. One of the most interesting moments in econometric research is the problem of the cause-effect relationships (causality) between the variables reflecting the economic system. For example, is the increase in direct education costs reducing unemployment within society? [15. The author is Galiulina LM, p. 47]. So, to clarify this problem, Granger's proposed “cause-effect” dependence test (Granger causality) is used. As a result of the analysis, it was revealed that budget and education expenditures, as well as budget revenues, play a role of Granger's cause for unemployment in the country (The probability of impact for all regressors is P = 0.00).

3.1. Establishment of regression models of the human capital indicator on unemployment

The results of the econometric analysis upon the causality between the level of unemployment in the country and the components of the human capital vector have shown that, as regressors affecting the unemployment rate, expenditure on education, health expenditure, and the budget's own income are reasonable for Granger theory.

Thus, this dependency can be specified;

$$\text{Unemployed} = \beta_0 + \beta_1 EC + \beta_2 HC + \beta_3 BR + \varepsilon_i *$$

EC-education costs, HC-health costs, BR-budget revenues[*].

in the form of multiplication linear regression equation as an econometric model [Dougherty p. 332].

The statistics of the selected linear regression model via the Eviews software package were illustrated in the following table (Table 2).

Table 2: Statistics of Econometric Analysis of Selected Regressors on Unemployment Indicators

Dependent Variable: Unemployed
Method: Least Squares
Date: 11/11/18 Time: 22:45
Sample: 1995 2017
Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	539.7310	25.86852	20.86440	0.0000
EC – Education costs	-0.741330	0.202938	-3.652987	0.0017
HC – Health costs	1.637674	0.568916	2.878584	0.0096
BR – Budget revenues	-0.011814	0.011101	-1.064293	0.3005

R-squared	0.816550	Meandependentvar	364.2783
Adjusted R-squared	0.787584	S.D. dependentvar	132.3560
S.E. ofregression	61.00098	Akaikeinfocriterion	11.21643
Sumsquaredresid	70701.27	Schwarzcriterion	11.41390
Log-likelihood	-124.9889	Hannan-Quinncriter.	11.26609
F-statistic	28.19019	Durbin-Watsonstat	0.517770
Prob(F-statistic)	0.000000		

According to the statistics shownin Table 2, the following regression model was revealed in the dependence on the level of unemployment from budgeted education expenditures, health expenditure,and budget revenues.

$$\text{Unemployed} = 539{,}731 - 0{,}741\text{EC} + 1{,}638\text{HC} - 0{,}012\text{BR} \; (1) \; *$$
$$P \; (0{,}00)(0{,}00\,)(0{,}00)(0{,}30)$$

EC-education costs, HC-health costs, BR-budget revenues[*].

(1) According to the economic interpretation of the regression model,the state budget expenditure on education amounted to 1 mln. manat increase causes the reducing of the number of unemployed up to 0.741 thousand people, however, 1 mln manat increase in the cost of health expenditures leads to the increase of the number of unemployed by1,64 thousand people.

According to this regression model, will be $ 1 million. The increase in the budget revenues up to 1 mln. manat results in the decrease in the number of unemployed in the country by 0.12 thousand people. Although the determining factor of the regression model is R2 = 0.82 with the high quality at first glance, and it is pointed out that 82% of the regression equation is scattering the unemployment indicator, we do not consider this model to be of good quality. Because, according to statistics of this model, the coefficient of the budget revenues is insignificant.

(BR (budget revenues)→ P = 0.30)

This result can also be checked out by the elasticity of the dependent variable according to Xi regressors [7. Vasenkova EM, p. 12]. The following prices have been obtained for the elasticity coefficients amid the research process.

$E_{unemployed(EC)} \approx -1{,}535;\ E_{unemployed\ (HC)} \approx 1{,}299;\ E_{unemployed\ (BR)} \approx -0{,}250^{*}$

EC-education costs, HC-health costs, BR-budget revenues[*].

Thus, the 1% increase in budget expenditures according to the mathematical expectation reduces the unemployment rate by 1,535%, and the 1% increase in health expenditures according to the mathematical expectations increases the unemployment rate by 1,299%. Indicators for budget revenues constitutes 0.25%. This shows that budget revenues have a weaker effect on the level of unemployment than budget expenditures for education and health. (1)Consequently, in accordance with the regression equation statistics, the decision on the inadequacy of budget revenues to the unemployment has been confirmed once again by the cost of this elasticity ratio of $E_{unemployed.}$Hence, the (1) model has not been properly clarified and it is advisable to deduce the budget revenues (BR) from the study.

3.2. Improving the quality of the built-in regression model

The following regression model has been established based on the econometric modeling statistics for the new composition of exponential variables.

$$\text{Unemployed} = 543{,}770 - 0{,}735\text{EC} + 1{,}300\text{HC}\ (2)$$
$$P\ (0{,}00)(0{,}00)(0{,}01)$$

Pursuant to this model, the budget expenditure on education amounts to 1 mln. manat growth in the country reduces the unemployment rate by 0.74 thousand people. However, the cost of health expenditures up to 1 mln manatincreases the unemployment rate by 1.30 thousand people in the country. It should be noted that the increase in health expenditures affecting on the level of unemployment can be explained by "healthy body mental health" syndrome. That is why people who have regained their health cause an increase in supply in the labor market.

(2) According to the statistics of the regression model, R2 = 0.81. that model, for example, explains 81% of scattering in the unemployment rate.However, since DW = 0.44 (di = 1,168 and du = 1,543), this indicator falls to the range of 0 <DW = 0.44 <di = 1,168 on the scale and proves the existence of positive autocorrelation in the model [10. Yeliseyeva II, p. 22].

(2) In this model, the presence of the first compressed positive autocorrelation is confirmed as a result of testing the presence of autocorrelation by a correlation method.The statistical characteristics of the model are close to the norm and there is no need for multicollinearity testing.

However, the source of the first compressed autocorrelation found in the model can be multicolleniarist. Thus, the cause of autocorrelation is the defects in the specification stage, and these defects give rise to the emergence of multicollinearity [5. Borodich SA, p. 228]. In the econometric modeling, the dispersion-inflating factor variance method is used to detect the multicollinearity, which is commonly seen as the presence of sufficiently close statistical relationships between the exponential variables and the usual regression of time series. Because of the fact that this method allows you to determine, which variables generate multicollinearity.

(2) As a result of testing the regression model based on this method of multicollinearity, it was found out that the value of the CCD coefficient for the model variables is significantly higher than the critical price of CF = 10.Therefore, there is serious multicollinearityamong regressors in the model, and this multicollinearitycauses positive auto-correlation. In order to eliminate autocorrelation, the following logarithmized version of the regression equation is used [2. Gujerati D., p.183].

Log (unemployed) = β_0 + _1_1 Log (education costs) + β_2 Log (health costs) + ε_ (i) (3)

(3) The following regression model is obtained based on the econometric modeling statistics for the regression model:

$$Log(unemploy.) = 7{,}723 - 0{,}298Log(edu.cost. - 0{,}0102Log\ (health.cost)\ (4)$$

For this model, R2 = 0.95 is taken and the value of the determinant ratio has increased compared to the model (2).However, other statistical characteristics for the model (4) have deteriorated. Therefore, it is desirable to use spider web and inductive methods to eliminate positive autocorrelation in the first embodiment [9. Dougherty K., p. 367] The logarithmic regression model will be described on the basis of these methods (3) as follows:

$$Log(unemploy.) = \beta_0 + \beta_1\, Log(edu/costs) + \beta_2 Log(health/cost_{t-1}) + \beta_3 Log(IS_{t-1}) + \varepsilon_i\ (5)$$

(5) The EViews software package and econometric modelinghave provided the following regression model, which reflects the dependence of the unemployment factor on the regression model:

$$Log(unemploy.) = -1{,}395 - 0{,}0954\, Log(edu.cost) + 0{,}156Log(health\ cost_{t-1}) + 1{,}199Log(unemploy._{t-1})\ (6)$$

According to the given model, the state budget spending on education and health has a one-year delay in the country's unemployment rate.The unemployment indicator also affects itself in the same way. (one year delay).

(6) Regarding the economic meanings of the exogenous parameters of the regression model, 1 mln. increasein the cost of educationin causes a decrease in the level of the unemployment rate by 0.0954 units, however, the increase up to 1 mln. manat in healthexpenditures leads to an increase in the unemployment rate by 0.156 thousand people.

(6) The regression model 's determinant coefficient is R2 = 0.995. Taking into consideration the determination of the coefficient, which is close enough to the unit and 1260,563 = F_sta> F_ (criterion (0.05; 3; 18)) = 3,16. So that it is possible to reach an initial decision on the level of unemployment (6) that the regression model is important. In order to determine the validity of this decision, it is necessary to assess the presence of autocorrelation and the degree of homoscedasticity of the model.

4. TESTING THE QUALITY OF THE REGRESSION MODEL OF THE HUMAN CAPITAL INDICATOR ON UNEMPLOYMENT

The Ramsey Generalized "RESET" test is used to scrutinize the specification of the linear regression model in econometric studies, because, "RESET" test linear regression model is able to detect specific errors. For example, some of the explanatory variables are not included in the study or the functional form is not selected and so on. More precisely, this test determines whether or not the additional variables should be included in the equation. As a result of Ramsey'sRESET test of the linear regression model of unemployment (6), it was known that this regression model was Fstat = 0.1427> 0.05 = α.Hence, (6) the regression model has been properly codified. One of the mechanisms used to test the regression model for homoscedasticity is the White test [10. Yeliseyeva II p. 160; 21. Melnikov RM p. 67]. Since the number of variables in the regression model that we have already investigated (6) constitutes m <4, the homoscedasticity of this model has been tested by the Cross version of the White test [15. The author is Galiulina LM, p. 39; 7. V. Vasenkova, p. 77]. The test statistics show that the Wait test statistics for the model (6) is giving P (Fstat) = 0.4157> 0.05 = α, meaning that the hypothesis of the model is homoscedastic. To sum up, the systematic econometric surveys underline that all the characteristics of the linear multidimensional regression model depending on the level of unemployment from the state budget to education and health expenditure (6) are within the scope of the Gau - Markov theorem. So, it has to be noted that this model can be considered a useful mechanism for predicting a quality adequate model for real conditions [2. Gujerati D., p. 72].

4.1. Predictability of unemployment level

The econometric model (6) obtained during the research process was considered to be an effective mechanism to predict the level of unemployment in the country, taking into account the impact of the human capital vector on expenditure components for education and health.
The following figure illustrates the actual level of unemployment and the comparison of the forecast parameters obtained by this model (Figure 4).

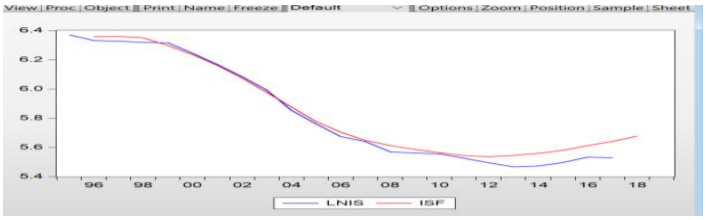


Figure 4: Comparative schedule of actual and forecast levels of unemployment

As you can see from the chart, the actual price of the unemployment coincides with the forecast prices of the model. It further proves that the model (6), which reflects the degree of dependence of the level of unemployment on human capital indicators, has been properly specified.
According to the forecast results, the error of the unemployment rate (6) in the research process is 0.64% for the 2018-2019 period based on the regression model.The quality of the model is reaffirmed since it has more than 0.5 characteristics.

The lower and upper interval of unemployment prediction is 0.124570 and 1.22711. Thus, if we assume that the unemployment rate for 2017 amounts 251.7 thousand people, then it is forecasted that 95% of 2018 will be in the range of 251.122 and 262.93 thousand people [8. G.O. Chitaya and others, p. 189].

5. CONCLUSION

The existence of peculiarities of unemployment in the labor market of the Republic of Azerbaijan requires a different approach to its research. The basis of this approach is the approach of human capital to unemployment within the context of socio-economic factors.Studies show that the cost of the human capital vector from the state budget to education and health directly impacts the unemployment rate in the country. Econometric testing of the stability of time series of these indicators showed that they are not stationary due to the existence of the deterministic time trend, but may be considered as stationary time sequences relative to the growth indicator.The testing of the cause and effect relationships between the components of human capital including education and healthcare costshas shown that education and healthcare components play the role of "Granger's cause" for the unemployment level in the labor market. During the course of econometric research, the multivariate linear regression equation has been set up based on the dependence of the level of unemployment on the labor market of Azerbaijan from the state budget to education and health expenditures. The model specification has been modified and the model has been set up into a real-life mechanism. The econometric testing from the different approaches to the quality of the latest version of the model has shown that this model fully meets the conditions of Gau-Markov, there is no autocorrelation, and it is homoscedastic.Taking into account the quality of the established econometric model, the unemployment rate has been predicted on the basis of this model. The forecast prices of the model have coincided with the actual prices of unemployment by 0.64% of error.The inaccuracy of the forecast less than 0.5, once again showed that the model proving the dependence of the level of unemployment on the components of the human capital vector is indeed, adequate and predictable for realistic conditions.

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MARKETING RESEARCH OF GRAIN AND GRAIN PRODUCTS OF AZERBAIJAN

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ABSTRACT

The high level of dependence on imports of grain and grain products, as well as the low quality of grains used in the country for the purpose of food use, is the marketing problem of this sector. Due to the low quality of grain produced in the country, dependence on imports of grain and grain remains high. Solution of these problems is possible due to the increase of productivity and quality of grain produced in the country. Additionally, it is important to take into account the role of key factors influencing to increase the production of grain and its offering to the market in order to increase food security on account of domestic production. While purposeful measures have been taken to increase grain production in Azerbaijan, it has not yet been achieved to significantly reduce the country's import dependence on this product. In some cases, the measures to regulate the grain and grain market have not been systematic, so the effect of the implementation of those measures was less than expected. In order to increase the effectiveness of the measures implemented in this area, first of all marketing research of the grain and grain products market should be undertaken and this should be a complex and systematic approach to solving problems in the market. Based on the information obtained from these studies, it is possible to provide desirable development of the market and to develop scientifically substantiated proposals for the country's food security.

Keywords: *dependency on the import, food security, grain and grain products market, marketing research of the market, self-supply*

1. INTRODUCTION

For many years, there are problems in the grain and grain market of Azerbaijan. The dependence of the country on the international grain and grain products market and the fact that it acts as a net importer is an indication of the problem in the market, and it is difficult to speak about food security and independence in the grain without eliminating the problem. The low productivity of grains produced in Azerbaijan and the fact that its quality indicators do not meet the standards in some cases have led to the dependence of the food market on this product segment on international markets. Although certain targeted efforts to reduce dependence in this area are implemented, dependency remains high, so it is important to continue the activities and to make adjustments to the measures taken in this area, depending on the conjuncture of the grain and grain market in the country. Development of effective measures in this field requires market research of grain and grain products.

2. THE IMPORTANCE OF MARKETING APPROACH IN FORMATION OF GRAIN AND GRAIN PRODUCTS MARKET

The share of bread and bakery products in the concentrated consumption of foodstuffs of Azerbaijan population is higher and most of the energy consumed by the population from the

daily consumption of foodstuffs falls on bread and bakery products. This will be the case in the near future, as the likelihood of changing the culture of consumption that has been taking place for many years is usually very low. Therefore, the demand for high quality bakery and bakery products, as well as the availability of sufficient livestock products in terms of balanced nutrition depend on the development of the grain and grain products market. From this point of view, the grain-growing has a systemizing role in the agricultural products market and, depending on the level of development of this area, the development of the relevant segments of the agrarian products market (e.g. livestock product segments) is ensured. It is impossible to achieve the coordination of the interests of all market participants without the marketing approach to the formation of the grain market. From this point of view the marketing approach to the formation of this market is emphasized in the works of many economists. "We are looking at the grain market and efficiency of its semi-complex from marketing position, taking into account the apparent impact of the grain market in terms of meeting the population's demand" [4, p.67]. Providing the desired development of any market also requires knowledge of the market development law. This also applies to the grain and grain products market and the acquisition of this information can be based on marketing research. The substantiated decision-making on the solution of the problems arising in the grain market is possible as a result of the information obtained through the marketing research of this market. "The solution of these issues requires knowledge of the laws of development of internal and external grain markets and their ability to adapt to their requirements, as well as the ability to control the set of instruments that will influence the situation in them. Achieving it in full is possible on the basis of marketing approach to managing the grain market. At the same time, the principles of marketing activity and methods of their implementation are universal for both state and the business" [5, p.33]. Famous Russian economist scientists Klyukach V.A, Altukhov A.I, Vasyutin A.S, showing the importance of marketing approach to the formation of the grain market, emphasize the importance of a market-based approach to development of measures on regulation of the same market. [5].

3. RESEARCH OF DEPENDENCY ON IMPORT OF GRAIN AND GRAIN PRODUCTS AND SELF-SUPPY

Experts believe that 40% of development of the agrarian-industrial complex is directly related to the development of grain-growing. In their view, the multiplier effect from the development of grain-growing is 1.5-2 times higher than the effect obtained from development of agriculture within the economy. Along with all of these, grain is considered to be a strategically important product that has a bigger share in ensuring the productivity of both food security and profitability of product producers. In some cases, grain is also used as a product that performs the function of value measuring. Given these features, in countries where market economy develops, the state interferes more in the market to direct the processes emerging in the grain and grain market to the desired direction. "Grain market between agricultural products, raw materials and food commodities is also characterized by its specific features. In modern conditions, in the grain producing countries of the world, the most important of them is the state's ever-increasing role in shaping demand and supply. It is conditioned by the fact that grain is the basis of the whole food system, and its supply is an important indicator of the state's economic independence" [5, p.34]. Over the last two decades, certain achievements have been achieved in the development of grain growing in Azerbaijan. Thus, compared with 1995, in 2017 the sowing area of the grain increased by 1.6 times, the productivity - 2.0 times, and the grain production - by 3.2 times. During 2008-2017, the sowing area of the grain was increased from 897,000 hectares to 977,200 hectares, during that period the production of grain increased from 2502,63 thousand tons to 2912,06 thousand tons, and the productivity per each hectare was increased 2.79 tons to 2,98 tons.

The analysis based on the index method shows that 54,65% (223,76 thousand tons) of 409.43 thousand tons of grain production increase fell on the sowing area and 45,35% (185,67 thousand tons) of the it fell on the account of increase of productivity. An important part of grains produced in Azerbaijan falls in trhe share of individual entrepreneurs, family and households. In 2013-2017, 90.9% - 92.1% of the grain sowing area and 91.0-91.9% of grain produced in the country fell on the share of these farms. The rest of the grain was produced on account of agricultural enterprises. Over the years reviewed, grain production per capita ranged 244.8 - 307.4 kg and wheat production ranged from 148.5 to 196.8 kg. Despite certain achievements in the development of grain growing in our country, the share of imports in the content of reserves of grain and grain products still remains high and the level of self-supply with these products is not high. Researches show that in 2013-2017, the total imports of cereals and leguminous plants totaled 24.91-27.36%. The level of this indicator was 31.31 - 33.28% for wheat, and 64.54-68.52% for rice. Volume of imported wheat during these years amounted to 1195,7-1451,3 thousand tons, the value of import of this product - ranged between 227,2 - 395,4 million USD. Dynamics of level of dependence on import of grain and grain products is characterized by the data of the following tables (Table 1).

Table 1: The level of dependency on import of grain and grain products, %*

	2013	2014	2015	2016	2017
Total of cereals (rice paddy is not included)	36,1	39,4	35,5	36,5	33,7
Wheat	44,1	45,9	45,2	47,1	41,9
Barley	2,2	15,4	4,9	0,1	5,6
Corn	40,0	43,3	45,9	28,9	29,3
Oats	10,7	37,8	6,9	14,3	9,9
Other cereals	97,7	98,9	93,7	71,8	79,6
Flour (of all kinds)	6,5	5,5	5,1	4,0	4,2
Cereals (of all kinds)	80,8	81,9	82,1	83,2	71,0
Cleaned rice	85,5	91,7	90,5	90,0	76,2

Source: the table was compiled by the authors based on the data of the State Statistics Committee.

**- import /(production + export – import)*was calculated 100%.*

As seen from the data of the table, the most dependent segments of Azerbaijan food market on the import are wheat, rice and all kinds of cereals. Targeted measures on the first two segments are ongoing and solution of the problems observed in other segments of the food market is directly dependent on solution of problems emerging in these segments. However, problems with the sale of grain continue to remain. As such, for example, the supply of the products to the State Grain Fund currently acts as one of sales channels of products of the grain producers, but in some cases the sale of products on this channel is not possible. Although the producers are satisfied with the supply price of the product (this price varies from 230 to 250 AZN per each ton of quality wheat at present), as the quality of grain produced in the country is low, it is very difficult to sell a significant portion of grain on that channel.For this reason, grain procurement entities buy significant part of the grain from international markets. For example, "Ganja Deyirman" purchased only 15-20% of the grain in the last six years from local producers. In the case where the quality of the grain produced does not meet the requirements, the sale of the produced product is not possible and the level of required profitability of the producers is not provided in terms of their extensive reprocessing. As we noted above, the root cause of this is due to the quality of grain produced and this is the indication of availability of the problem in marketing activities of the farms.

The conducted researches show that in comparison with 2013, in 2017, the level of self-supply was increased by 2.4 % for whole cereals, as well as 2.2 % for wheat, 10.7 % for corn, 0.8 % for oats and 18.1 % for other kinds of cereals. During all these years, the increase of the level of self-supply for all kinds of flour, cereals and rice was accordingly 2,2 %, 9,7 % and 9,3%. In the years reviewed, only the level of self-supply for barley was decreased and it was equal to 3,4% (Table 2). At present, the demand of the country's population for rice is more than 40,000 tons. The existing sowing area of this product and the amount of produced products is too small to cover the demand of the population of the country. As such, only 2.5 thousand hectares of paddy planted in 2016 and 5.6 thousand tons of crops were harvested. In 2017, the sowing area of paddy was increased by more than two times and reached to 5.1 thousand hectares compared to the previous year; 15.6 thousand tons of products were produced in the country and average productivity was 31 c / ha.

Table 2: The level of self-supply for grain and grain products,%*

	2013	2014	2015	2016	2017
Total of cereals	63,9	60,6	64,5	63,8	66,3
Wheat	55,9	54,1	54,8	52,9	58,1
Barley	97,8	84,6	95,1	101,7	94,4
Corn	60,0	56,7	54,1	71,1	70,7
Oats	89,3	62,2	93,1	85,7	90,1
Other cereals	2,3	1,1	6,3	32,0	20,4
Flour (of all kinds)	93,8	94,8	95,1	96,1	96,0
Cereals (of all kinds)	19,3	18,2	17,9	17,6	29,0
Cleaned rice	14,5	8,3	9,6	10,1	23,8

Source: the table was compiled by the authors based on the data of the State Statistics Committee.

**- import /(production + export – import)*was calculated 100%.*

Taking into account the fact that the significant portion of the cleaned rice reserves of the country was formed on account of import, "the State Program on the Development of Rice in the Republic of Azerbaijan for 2018-2025" has been adopted by the order of the President of the Republic dated February 09, 2018. The State Program set forth the goals such as meeting the demand of the country population to the rice, substitution of import, development of paddy processing industry, stimulation of development of paddy-growing field in order to raise the employment level of rural population. To achieve this goal, fulfillment of certain tasks has been identified and directions of action have been specified such to expand the paddy-growing and increase of the productivity of the paddy, to improve the infrastructure of rice, to promote the use of innovative technologies in paddy production and processing, promote the creation of paddy processing enterprises. The program envisages increasing the sowing area of paddy to 10,000 hectares by 2025, its productivity to 40 c/ha and the production volume to 40,000 tons. The efficiency of grain production in some farms operating in the field of agriculture of Azerbaijan is quite high. As such, in the last five years, the overall tendency of profitability of cereals and grains in individual entrepreneurship farms has increased, and the level of this indicator ranged between 24.7 - 34%. This level of profitability is considered to be a fairly acceptable level for the extensive reprocessing of farms and was achieved thanks to the state protection of grain producers. It is enough to remind only one fact that the amount of subsidies paid by the state to the grain producers for fuel and diesel oil is 90 AZN. The high level of grain efficiency in the grain-producing farms can further enhance their interest in production and ensure the allocation of land plots to the production of this product. For this reason, problems faced by grain producers in production and sale activities should also be addressed.

The analysis of technological and organizational and economic factors influencing the growth of product offerings in the grain market of our country shows that there are still problems in this aspect and they have not been completely eliminated. Thus, for example, compared to 2007, in 2017 the number of combine harvesters per 1000 hectares of sowing area of grains decreased from 3.0 to 1.8 pcs. Despite this reduction, combine harvesters used in harvesting are selected by their high productivity and are produced in developed countries of the world. However, as the majority of grain farmers are smaller in terms of their economic and physical dimensions, problems arise when they own and use the same hardware. All of these do not allow the harvesting of grain produced in the country in the optimal period. One of the problems in this area is due to the large number of equipment that is not in good condition in terms of use in the existing technique park used in grain production. These problems, which have been observed for many years, should be eliminated and the level of technical support of grain should be raised to the required level. In terms of fertilization of grain fields, the situation is not at the desired level. Due to the fact that the fertilizer production infrastructure is not developed in Azerbaijan and it is in the process of its formation, the fertilizers that are given to grain sowing areas are imported from foreign countries. Compared to 2008, in 2017 the amount of fertilizers that were given with 100% nutrient substance in the grain sowing area increased from 14 kg to 62 kg, or 4.4 times. However, despite this increase, experts have concluded that the quality of imported fertilizers was not high, and their impact on the productivity of grain was very low. Therefore, the formation of a proper infrastructure for fertilizer production in our country is very important and acceleration of the measures taken in this area can lead to further growth of grain production and increase of productivity from grain sowing areas. An analysis of the organizational and economic factors affecting the increase in product supply to the grain market shows that there is a need for some improvement in the measures taken in this aspect. Particularly, the formation of guaranteed sales channel of grain can give rise to sufficient revenue for the producers of this product, and hence, to promote market development.

4. CONCLUSION

In order to ensure food security at the expense of domestic production, the role of factors affecting the production of grain in our country and its offer to the market should be considered correctly. These factors can be grouped into natural, agro technical, technological and organizational-economic factors. Natural factors include rainfall, temperature, germs and pests, soil, and so on. Agro technical factors can include sowing turnover, share of separate crops in planting area, amount of planting materials, share of zoned grain types in sowing area and etc. Provision of grain producers with hardware, machinery and equipment, technical level and degree of wear, as well as fertilizers and herbal remedies can be indicated as technological factors. Organizational and economic factors include the awareness of grain producers about market processes - delivery of predictable information on demand and its possible future prices to product producers, establishment of efficient grain marketing channel for producers, improvement of measures taken to protect grain producers and etc. Taking into consideration the above mentioned, we should seriously think of quality features in our country, grain production meeting the demands - inform the producers in this field, provide practical assistance to enable them to produce more quality grain. It is possible to speak about provision of food security for this product in the condition of sufficient production of grain meeting the quality features and demands. The per capita wheat demand for food purposes was defined in the level of 186 kg. Taking into account this indicator and the increase of country population in 2019-2023 (taking into consideration the number of population in 2001–2018, $\mathbf{Y=109,16 \cdot X +7932,4}$forecasted based on the recourse equation, $\boldsymbol{R^2 = 0,9975}$; $\boldsymbol{X}$- the number of years, $\mathbf{Y}$-the number of population in thousand persons) the demand for wheat ranges between 1861,23 - 1942,46 thousand tones.

At present, the volume of wheat produced in our country is close enough to this forecast, but because of the low quality of the wheat produced, its usefulness for the purposes of food is low. Therefore, urgent measures should be prepared and implemented in the above-mentioned aspects to improve the quality of wheat produced to minimize dependency on foreign markets.

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GREEN PROJECT MANAGEMENT: BALANCING OF SUSTAINABLE DEVELOPMENT PRINCIPLES

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ABSTRACT

The concepts of sustainability management and green project management are relatively new management concepts, especially for Russian companies. Implementation of this concept brings sustainable development principles - including economic, ecological, social, and institutional dimensions - in business strategy and project management processes that leads to long-term sustainability of the organization and increases its ability to cope with complexity. Russian companies face the need to spread the principles of sustainable development among their owners, managers and other employees. Despite the spread of the sustainable development concept over the last two decades, some challenges still remain - including the measurement of the project sustainability; the application of sustainable development principles and their adaptation to the needs of the project and company; the balancing of the economic, social, ecological, and institutional principles of sustainable development. Our study is focused on factors related to the implementation and balancing of sustainable development principles in the business strategy and project management of an organization. The research questions are as follows: What factors lead to the successful implementation of the sustainable development principles in the business strategy and project management of an organization? How to reach a balance between the economic, ecological, social, and institutional principles of sustainable development in project management? To conduct our study we used the method of an in-depth face-to-face interview with top managers of the companies. Our data-frame includes three cases from the Omsk region of Russia.

Keywords: *Green Project Management, Sustainable Development Principles, Sustainability Management.*

1. INTRODUCTION

Our study is focused on the application and balancing of sustainable development principles in the business strategy and project management processes of companies located in the Omsk region of Russia. Green project management and sustainability management are relatively new concepts for Russian companies, but they are getting more popular nowadays. These concepts may help Russian companies to cope with the increasing complexity of society, economy and environment. The concept of sustainability brings many challenges to the project management of an organization, including the measurement of the project sustainability; the application of sustainable development principles and their adaptation to the needs of the project and company; the balancing of the economic, social, ecological, and institutional principles of sustainable development. These challenges led us to ask the following research questions: What factors lead to the successful implementation of the sustainable development principles in the business strategy and project management of an organization? How to reach a balance between the economic, ecological, social, and institutional principles of sustainable development in project management? We followed a qualitative approach to address our research questions regarding sustainability assessment.

To conduct our study, we used the method of an in-depth face-to-face interview with the companies' top managers. Our data-frame includes three cases from the Omsk region of Russia.

2. THEORETICAL BACKGROUND

Sustainability is a key idea that lies in the basis of the concepts of green project management and sustainability management. Sustainability may be considered as the capacity of the system or process to maintain itself for a long time (Moldan and Dahl, 2007). The most known definition of "sustainable development" was made in the 1987 Brundtland report "Our Common Future" as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p.43). Sustainable development may be defined as development that accepts the rights of all people and nations to grow and flourish today as well as in the future (Robertson, 2017). The concept of sustainable development is considered one of the most challenging concepts that has ever been elaborated on, despite its simple idea. Its main challenge is to provide the development of social and economic systems in harmony with the ecological systems of the planet. The sustainable development concept aims to provide everybody with the opportunity to lead a dignified life and protect the planet from damage (Moldan and Dahl, 2007, p.2). The concept of sustainable development includes three main principles: social, economic, and environmental. These three principles are known as the "three E's" (environment, economic, and equity) or the "three P's" (people, planet, and profit) and are also called "the triple bottom line" (TBL), the term introduced by John Elkington (Elkington, 1999). In other words, sustainable development includes the three following dimensions: ecological sustainability, economic opportunity, and social inclusion (Robertson, 2017, p.3). The fourth principle of sustainable development is institutional. This principle was included in the system of sustainability indicators by the UN Commission on Sustainable Development. The fourth principle of sustainability is not so well adopted as the three main principles, moreover there is a need for the development of sustainability indicators for the institutional component (Moldan and Dahl, 2007). The institutional component of sustainability may be considered as the acceptance of sustainability management institutions by an organization, as its intention towards sustainable development and the balance of economic, social and environmental objectives. The ideas of sustainability and sustainable development are associated more and more with green economy, sustainability management and green project management. Sustainability management may be defined as "the organizational practices that result in sustainable development" (Cohen, 2011, p.4). In the broad sense, sustainability management aims to provide the economic efficiency of an organization/project in the long term, simultaneously ensuring a high level of ecological and social responsibility. The Project Management Institute (PMI) defines sustainable development as a new management paradigm, which aids in coping with the complexity and dynamics of an organization, its projects and programs. According to PMI the principles of sustainable development - including economic, ecological and social – shall be used in all project management processes that allow for the improvement of the quality of the project results (Gareis et al., 2013, p.1). Green Project Management Global (GPM Global) is an international organization that develops standards in the field of green project management. According to GPM Global, green project management includes "tools and methods to manage the balance between finite resources, social responsibility, and delivering "green" project outcomes. It was developed for organizations to integrate project processes with sustainability initiatives to achieve business objectives while decreasing negative environmental impact" (Carboni et al., 2013, p.8). In the framework of the Green Project Management concept, "a Green Project Manager embodies the commitment to act as an agent of change by managing and directing efforts to maximize sustainability within the project life cycle, improving the construct and delivery of goods and services produced as a project deliverable" (Carboni et al., 2013, p.21).

To summarize, the concept of sustainability in project management aims to harmonize the economic, social and ecological interests in the short and the long term as well (Silvius et al., 2012). To analyze the green project management of an organization we will use four principles (components) of sustainable development – economic, ecological, social and institutional, applying them to the project management processes and deliverables. To formulate the research questions more precisely, let us proceed to the challenges and research gaps in the field of sustainability management and green project management.

2.1. Research gaps

The concept of sustainability brings many challenges if we want to implement it in project management in practice. One of the main challenges that faces science and practice nowadays is the implementation of sustainable development principles in the business strategy and project management of an organization (Carboni et al., 2013, p.29; Kohl, 2016). Another challenge is the balancing of the economic, social, ecological, and institutional principles of sustainable development in the management of an organization. To achieve the balance between these principles the organization must always meet the trade-offs between the different dimensions of sustainability (Gareis et al., 2013, p.41). These challenges led us to formulate our research questions.

3. RESEARCH QUESTIONS AND METHODS

- What factors lead to the successful implementation of the sustainable development principles in the business strategy and project management of an organization?
- How to reach a balance between the economic, ecological, social, and institutional principles of sustainable development in project management?

We followed a qualitative approach (Patton, 2002) to address our research questions regarding implementation and balancing of the sustainable development principles in an organization and its projects. Phenomenological methodology was practiced by different researchers in their qualitative studies in sustainable development principles (Gareis et al., 2013; Robertson, 2017). To conduct our study, we used the method of in-depth face-to-face interviews with top managers of three companies in the Omsk region of Russia. The structure of the interviews was divided into two modules. The first module is a module of general, or institutional questions in sustainability management and green project management; and the second module is a module of special questions in the three dimensions of sustainability – economic, social, and ecological (Carboni et al., 2013; Cohen et al., 2015; Gareis et al., 2013; Maltzman and Shirley, 2010; Moldan and Dahl, 2007; Silvius et al., 2017).

4. FINDINGS

The interviews were conducted with top managers of a petrochemical company, a chemical company and an engineering company, all located in the Omsk region of Russia. The Omsk region is located in Siberia and specializes in petrochemical refining, chemical production and engineering in urban areas. All three companies are large. Two of the companies implement their projects at the national level of the Russian economy and the other at the international level, and most of the companies' projects are commercial. The interviews were conducted from July to December 2018.

4.1. Module of institutional questions

The first question was about the strategy of sustainable development. The two companies that implement their projects at the national level have short-term oriented strategies of sustainable development that include strategic goals for the next one to three years; the company that works

at the international level has a middle-term oriented strategy of sustainable development (for the next four to six years). The strategies include all three principles of sustainability: economic, social and ecological, declaring that all three principles are equal for all studied companies. Between economic, social and ecological objectives, the economic objectives have a priority in the projects of the petrochemical company; the economic and ecological objectives have a priority in the projects of the chemical company; while all the different objective types are equal in the projects of the engineering company. The project planning of the petrochemical company includes the planning of outcomes for one or two years more after closing a project; the engineering company plans the project outcomes only to the end of the project that shows the short-term orientation (the same as the strategy of sustainable development). The project planning of the chemical company includes the planning of outcomes of some projects for up to 25 years that shows the long-term orientation. We asked our interviewees about the influence of balancing the economic, social and ecological principles in project management on the different indicators. The manager of the petrochemical company told us that balancing the principles of sustainable development in the projects leads to an increase in the value of the project's results, quality of project management processes and the ability of the company to satisfy investors and partners, but doesn't have much influence on the project's success, project risks and image of the organization. The manager of the engineering company considered the positive influence of sustainability management on the image of the company, its ability to find new partners and customers, the value of project results and the ability to reduce any project's risks, and the neutral influence on the project management processes. The manager of the chemical company told us that balancing the principles of sustainable development in the projects leads to a decrease of the project risks, an increase of the chances of the project to succeed, an increase in the value of the project's results, and it has a positive influence on the image of the organization, quality of project management processes and the ability of the company to satisfy foreign customers and partners, but the neutral influence on the ability to satisfy investors. The most important factors for all companies that would lead to the implementation of sustainability management in the organization were the need to find new or to continue to work with existing partners, including foreign partners, and the price increases of energy and materials, as well as in landfill waste. Among the important factors that may have an influence on the implementation of sustainable practices in the management of the organization were government policy, including the tax system; fines and penalties for unsustainable practices; and development of a generally recognized system of sustainability indicators. The need of the new image of a sustainable/ green company was considered an important factor only by the chemical company. The less important factors for all interviewees were the internal culture of the company, as well as the individual point of view of the company top managers, the internal desire for a new culture and new social paradigm. To conclude, the studied companies that work at the national level only partly accepted the sustainability institutions, their strategy and goals are short-term oriented, while sustainable development requires long-term orientation. The chemical company that implements projects on an international level accepted most of the sustainability institutions, its strategy and goals are middle-term and long-term oriented. The companies accept the equality of all three principles of sustainability, but in practice the main principle is still economic. These companies will continue to implement the sustainability principles in practice under the influence of external factors such as partners, markets and government, while the internal factors are less important for all of them.

4.2. Module of special questions

4.2.1. Social dimension

The social objectives are included in the general strategy of all studied companies. All the companies have objectives and use the key performance indicators (KPI) in the field of labor safety, education of the labor force and equal opportunities for all workers. All the project team members have an opportunity to study regularly. The companies aim for equal gender rights and non-discrimination in the recruitment process, but among the project managers 70% are men, while 30% are women, which is the same distribution among project team members in the petrochemical company, and 50/50% distribution in the engineering company, and 90/10% distribution in the chemical company.

4.2.2. Ecological dimension

The general strategy of each company includes some ecological objectives. In the project management of the petrochemical company the following objectives and KPI are included: carbon footprint, consumption of water, energy, and materials, and use of transport. This company doesn't assess the influence of the project on the environment before the project's implementation. The engineering company has the following KPI: consumption of water, energy and materials. The chemical company has the following KPI: carbon footprint and other harmful emissions, consumption of water, energy, and materials, and use of transport, and waste generation and recycling. All the companies use recycled materials in production; and the final products of the companies may be recycled as well. The companies use materials from local producers that allow them to reduce the use of transport and influence on the environment. Renewable energy is not used at all, while most of the waste is sorted and recycled.

4.2.3. Economic dimension

Most of the projects of the studied companies are economically sustainable. The companies use the following KPI: return on investment (ROI); net present value (NPV); cash flow; profitability; liquidity of assets; market share; employment growth; taxation. Such an indicator as agility of business is not used. The sustainability management of the companies has a positive influence on their ROI, market share and the regional economy. Thus, the preliminary results show that the companies that work at the national level of the Russian economy implement the principles of sustainable development partly, these companies don't have complex systems of sustainability management and green project management. The company that works at the international level implements the principles of sustainable development in its project management processes more comprehensively. The existing norms of sustainability management are under the strong influence of external factors. External sustainability requirements play a more important role than internal. To increase the level of sustainability the companies need to pay more attention to existing institutions of sustainable development, to support the creation and implementation of the internal institutions of sustainability, including the system of economic, social and ecological sustainability indicators.

5. CONCLUSIONS

This study provides a starting point in understanding factors related to the implementation and balancing of sustainable development principles in the business strategy and project management processes of an organization. The cases of a petrochemical company, an engineering company and a chemical company located in the Omsk region of Russia were considered. The balance between the economic, ecological, social, and institutional principles of sustainable development may be reached if the organization pays attention to all of them. The institutional dimension of sustainability shouldn't be ignored because it brings sustainability to institutions in the rules and norms of the companies and it allows them to

balance all the other three principles. The internal or external sustainability institutions are needed for the balance of the sustainable development principles. In the case of our companies, the institutions and practices of sustainability are implemented mostly under the influence of external factors (such as government regulations, partners or market influence). We wanted to find out what factors lead to the successful implementation of sustainable development principles in the project management of an organization. The cases of the petrochemical, chemical and engineering companies show that these factors are external incentives: good practices of the partners (especially foreign partners that work at the international level); government policy in the field of sustainability, including the tax system and fines and penalties for unsustainable practices; generally recognized system of sustainability indicators; price increases in energy, materials, and landfill waste. Internal incentives are less important; among them are the internal culture of the company and its top managers, the internal desire for a new business culture and new social paradigm.

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INTEGRATION OF CIS COUNTRIES' NATIONAL STANDARDIZATION SYSTEM INTO ISO STANDARDS

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ABSTRACT

The national standardization system of the Republic of Azerbaijan has been undergoing the significant reforms to meet the requirements of accession to the World Trade Organization and the process of integration into the European Union. In accordance with these reforms, existing national regulations are being replaced by strict international standarts. In this process, it is necessary to bring the private sector in line with the new principles of standardization system, which is not easy and requires large investments. One of the most important elements of the adaptation of the national standardization system with international standards should be especially the development of the private sector to new system requirements. Thus, that will require billions investment from the private sector for the transition to the new system to be able to apply the new national standards based on international standards. To do this, it needs to think in advance about the necessary investments and preferential loan programs. In addition to this, the new system requires from the private sector the establishment of closer cooperation and development of standards, based especially on the needs of the private sector itself. This in turn makes inevitable by private sector to take a more active role in this process, so in order to take that role by the private sector it should be properly informed and the mechanism for participation should be formed. In the paper the authors analyses the changes applied to the existing national system of sdandartization, as well as aspects related to such a reform.

Keywords: *European Union, international requirements, national standardization system, private sector, World Trade Organization*

1. INTRODUCTION

As known, in relation to the membership of the World Trade Organization (WTO) and integration to the European Union (EU) the national standardization system of Azerbaijan has to be adapted to the requirements of those organizations. This will result in significant changes to the current system. Thus, unlike the current system, in the market economy system only the safety of products is regulated by the state. The quality of the products is regulated by the market itself. Therefore, the requirements on the safety of products, called technical regulations, are mandatory for implementation. The product quality requirements are reflected in standards and application of the standard is voluntary. Enterprises that want to improve the quality of products and thus get ahead of the competition are voluntarily applying these standards. At the same time the government limits its control by security of products. Another important change is taking foodstuffs control out of the national standardization system. In order to fulfill all these requirements the thousands of the existing Azerbaijan standards will be renewed as mentioned to meet international standards.

2. CHAPTER 1

The aspects of adaptation of the national standardization system to meet international requirements.

In general, the adaptation of the national standardization system to the international requirements will be implemented according to the following aspects:

- Adapting of the system itself to the principles of the market economy. Thus, in accordance with the market economy the standardization as technical regulation providing and applying of the mandatory requirements to the safety of the products and standardization defining voluntary requirements to the quality of products should be divided into two parts. This, according to the state control over the economy and the quality of the products safety regulation limiting the market makes it necessary to release the law of supply and demand;
- standards that form the basis of the system requirements for the products to adapt to the requirements of international standards. It is redesigning the existing standards to meet international standards. This is the most difficult element of the adaptation of the standardization system. Because of the fact that standards in former Soviet republics do not meet international requirements the tens of thousands of the existing standards have to be redesigned;
- product safety requirements for each product, product group and its overall safety record for technical regulations is to be developed. The former GOST standards include safety and quality requirements for each product, and this requires the development of standard for each product. But in international practice the security requirements of the product are defined in terms of security parameters, not in terms of product. So, whatever product has a security parameter this product is applied to the relevant technical regulations;
- identification of general requirements to the products in the technical regulations and liberalization of methods to meet these requirements. Along with determination of the requirements for products in the former soviet republics' standards, there a single mechanism to meet these requirements is also reflected. In international practice technical regulations specifies the security requirements only, but how they've met is carried out according to the rules shown in referenced standards or defined by the manufacturers itself. The manufacturers shall be deemed to satisfy the requirements of the technical regulations in case of at least one of the standards or the self-defined method is applied;
- institutional reforms in the management of standardization system. One of the major changes brought by adaptation is change of the structure and authority in government agencies responsible for the management of the national standardization system. So that, is required to carry out the necessary reforms to identify requirements of state bodies' authorities for security of products and limitation of these requirements by ensuring, preparation of standards and liberalization of the authority use, conformity assessment carried out by the private sector, in order to ensure one-sidedness, transparency and public participation;
- improving the safety and quality performance of products in conformity assessment system. According to the former soviet standardization system almost all products are mandatory certified and certification is carried out by state authorities. In addition, compliance with both the production and the market is under state control. But compliance with international standards requires that only high-risk products must be mandatory certified, compliance assessment of low-risk and mid-risk products shall be carried out by the manufacturers themselves, conformity assessment activities shall be carried out not by the state, but by the conformity assessment bodies accredited in accordance with international standards [1].

Apparently, it is necessary to carry out the significant changes in the current system to adapt to international standards. One of the key elements of harmonization of national standardization system with international requirements is taking into consideration the interests and potential of the private sector in Azerbaijan. Thus, the producers are the object of standardization. Those are parties who use the new norms.

Therefore, changes made will affect manufacturers in the first place. Therefore, coordination should focus the private sector as well. Thus, the adaptation of the private sector should be kept in the center of attention as well. Private sector related issues in the process of harmonization of national standards with international requirements. There are the following private sector related issues in the process of harmonization of national standards with international requirements:

- to involve the private sector to the development of new technical regulations and standards;
- to educate the private sector about the new technical regulations and standards;
- to provide transitional period for adaptation to the new requirements, technical support, concessional loans and assistance to the private sector;
- to support of the establishment of private enterprises which will carry out activities on the national standardization system;
- to adjust the consumer market to the new products.

3. CHAPTER 2

Now, let's comment each of these issues separately.

3.1. The involvement of the private sector to the preparation of new technical regulations and standards to the possible extent

As mentioned above, involvement of the private sector to the development of technical regulations and standards gives it a lot of benefits. So, by this participation they fully adopt the applied requirements, achieve taking into account its interests in these documents, learn other manufacturers' views and suggestions on this standard, get without investigation expenses scientific and technical progress achievements included in the standard etc. Therefore, according to the international experience it is considered appropriate that a most effective mechanism to adapt the private sector to the new rules is to involve it to the preparation of these rules. Although relative progress has been made in this area in recent years in our country, there are still problems in terms of unformed mechanism and lack of understanding of the importance of this issue by the private sector. In order to involve the private sector in this process the sectors or technical committees for products should be established. In the first phase it must be involved to develop mandatory subsequently applied technical regulations. As known, the aim of the development of technical regulations is to ensure safety of products for people, animals and plants. While scientific achievements and innovations, best practices and higher requirements on the quality of the products are considered when processing standards, whereas product safety indicators have taken as a basis when processing technical regulations. Therefore, accordingly the aim of participation of the private sector in processing of technical regulations should be development of safety requirements determined for its own products and while study of mechanisms to ensure it, the aim of participating in the development of standards should be in obtaining of the scientific achievements and new technologies and thus in improvement of the quality and competitiveness of their products. However, fulfillment of the safety requirements in technical regulations leads to safe and competitive manufacturers' products, and this in turn leads to increased confidence in their products and being more competitive. That is, in both cases the private sector achieves economic benefit when participated in the preparation of these documents [2,3]. In addition to the participation of the private sector in the national technical committees, its participation in the development of international standards and national standards of foreign countries should be encouraged. This is important either being a requirement of the WTO or taking into account the interests of the national economy in international standards and facilitate subsequent application of international standards in the country. On the other hand, the most important aspect which makes necessary the participation of the private sector in the development of regulatory documents is their contribution to how

the provisions of the international standards, taken as a basis, complies with the interests of the national economy, and which adaptations should be made in the national technical regulations and standards adopted on the basis of this international standard in terms of local climate, geographical, technological, environmental and economic factors. Because, there might be such requirements of international standards, direct application of which, due to the above factors, is not appropriate in our country. In this regard, what adaptations should be justified by the private sector to substantiate its position [5,6]. So, involvement of the private sector in both technical committees, either created under the State Committee on Standardization, Metrology and Patents of Azerbaijan for development of the technical regulations, or under Azerbaijan Institute of Standardization and Certification for preparation of national standards, is a very important issue. To ensure the participation of the private sector in the development of regulations the extensive educational work should be carried out first and then the benefits provided by such participation should be delivered to them. Some countries practiced to use premium payments and awards as promotional tools to motivate the participation of the private sector. Although it is advisable to carry it out for the development of technical regulations in our country, but it can be difficult to apply for the development of standards. In many countries, however, private sector pays the membership fee for participation in the development of standards. In addition to the participation of the private sector in the national technical committees their participation in the development of international standards and national standards of foreign countries should be encouraged. This, in addition to being a requirement of the WTO, is either important in terms of taking into account the interests of the national economy in international standards and further easier application of international standards in the country [7]. For this purpose, in accordance with the relevant technical committees of international standardization organizations an appropriate "mirror" committees should be established and discussion of international standards by these committees should be provided through the participation of local experts and the private sector. For this purpose, it is necessary to allocate funds from the state budget. At the same time, using the center of the inquiry and notification established on the basis of the WTO request the technical regulations of the WTO member states, the obtained projects of conformity assessment procedures passed to the private sector and review of these documents during the given period from the national interests point of view by the private sector must be provided.

3.2. To educate the private sector about the new standardization system

In our country, the representatives of the private sector are misinformed about the new approach due to operation based on the national standardization system requirements stand on Soviet era. While the national standardization system is in line with international requirements based on the proposed mechanism the private sector should be also well-informed about the nature of the new system. Thus, they must be tanned that the safety is the subject of regulation, but the quality is the subject of the market and they must be explained that implementation of either safety or quality requirements is the subject of competition and customer satisfaction in the market economy. It could be considered as a new approach for producers forced by the state to carry out such requirements for a long time. Therefore, the action plan to educate the private sector to be developed and the essence of the new system to be delivered to them through the followings:

- by organization of public events, conferences and seminars;
- by setting up the Training and Consulting Center under Standardization, Metrology and Patents Committee and by providing through it a free training to the representatives of the private sector on the nature and requirements of the new system;
- by giving free consulting to the manufacturers on new technical regulations and standards for their products, as well as on their application using the established center;

- by creating an information portal on technical regulations and standards;
- by preparation of the guidance on the application of any adopted technical regulation and by placing it on the website;
- by creating a system of national awards for safe and quality products production;
- by preparing of training and printed materials on the new standardization system and distributing to the private sector through the Institute for Standardization, universities and research institutes;
- by organizing regular activities and events in the press to raise awareness about the new system;
- by implementing joint events and projects along with public and business associations and other non-government organisations (NGO) etc.

3.3. Providing the transitional period, technical support, soft loans and aids for the private sector to adapt to the new requirements

We've noted that one of the most difficult moments in adaptation of national standardization system to international requirements and in ensuring the transition to the new system is namely application of the new technical regulations and standards to the private sector. So, for a long time the producers operating in Azerbaijan have established their production process in accordance with the current standards of their products. Being tougher and different than in QOST standards the requirements of the new technical regulations and standards must satisfy the requirements of the new regulatory documents based on international standards by making a significant investments. This first of all includes the means of production, in particular, the equipment, raw materials, renewing of the production environment, training for updating knowledges of professionals for new requirements, the assessment of compliance with the new requirements and other operating expenses. In international practice the transition period is given for the application of new technical regulations by the private sector. In our country within the process of WTO accession both for national standardization system to meet international requirements, as well as for the provision of new requirements by the private sector 7-year transition period has requested. After Ukraine has adopted the new technical regulations, except for the necessary safety measures, 1-3 year transition period has allowed for its' mandatory application. During this period the manufacturers are gradually applying the new requirements to their production processes. During this period, the current standards also remain in force [4]. It is considered appropriate to apply this experience in our country. During the voluntary implementation period it's important for the government to help manufacturers to understand requirements and application of new technical regulations by constant education, as well as by providing of free training and consultancy services. Another important point is provision of grants and soft loans to the producers, applying new technical regulations. For example, in this regard, the special state's financial aid program is carried out in Slovakia. So, within this program the government is covering the 65% of the expenses required to meet the guidelines of the European Union by producers [4]. This experience could be applied in our country in regard to manufacturers of the products which have a priority for the economy and export potential. Primarily, it would be advisable the fulfillment of the general requirements of technical regulations and compliance assessment to be met by these manufacturers. On the other hand, to apply technical regulations the preferential loans can be applied to the producers who guaranteed the safety of products and interested in the export of products. Thus, producers will be able to get preferential credit when they applied for it by noting that it aimed to apply the new technical regulations and standards. One of the main advantages of giving either soft loans or grants is safe and quality manufacturing of own products by manufacturers having such a support and by this to promote the government to manufacture the safe products in the local market.

Therefore, it is necessary to use these experiences within the financial opportunities of our country. This should be done in close cooperation with international organizations and financial institutions. Because, some of those agencies are carrying out these types of activities. For example, there is the program of the European Bank for Reconstruction and Development related to the covering of the 40-60% of the costs incurred for the implementation of international standards by the manufacturers of our country. The program is being implemented successfully [10].

3.4. Encourage the establishment of private conformity assessment bodies

Mandatory conformity assessment activities in the country for a long time carried out by the government prevented the establishment of private enterprises in this field. However, passing to the private sector this type of activity in our country as well paved the way for the creation of this type of enterprises. Most of the private certification companies operating in Azerbaijan are foreign and international companies. Local companies have shown little interest in this area. On the other hand, despite the fact that this area is liberalized, the provision of those services by state enterprises prevents the creation of private enterprises. Therefore, the expansion of this field is very important both from obtaining by manufacturers more competitive conformity assessment services and from the development of the business areas related to conformity assessment activities point of view. There are hundreds of private enterprises in this field in Europe. Competition among them leads to service quality improvement and price reduction for the services provided to the manufacturers. In our country, to encourage the industry the awareness and promotion activities should be taken in the first place. As well as technical support to fulfill the necessary requirements of local businesses and their accreditation should be conducted. Because, the lack of accreditation of local businesses means abcence of international recognition of their compliance documents, which in turn discourages manufacturers from using their services. The accredited local companies should be registered and those companies should be recommended to the manufacturers [8, 9, 10]. One more issue should be noted that some even international certification companies operating in our country deceive manufacturers by selling fake certificates to them or give them for extra money a certificate before necessary requirements met by manufacturers. That’s means delusion of consumers and sale of unsafe products to them. Therefore, in addition to promoting the creation of private enterprises, their operation in accordance with requirements, especially the mandatory certification of the products’ safety parameters should be carefully controlled.

3.5. Adaptation of new products in the consumer market

Manufacturing of the products according to the new technical regulations and standards will lead to an increase of their production costs and thus, an increase of their market price. This will result in a rise in consumer prices in the market. Therefore, in order to prevent the increase of the prices of products as much as possible it is necessary to support the manufacturers to reduce their costs by usage of the above-mentioned financial aids, grants and soft loans. At the same time, the gradual measures in the direction of the improvement of social welfare and the increase to the level of consumer purchasing power in Europe should be taken. Another important point is the improving citizens' consumer culture and to be more demanding of products purchased, including the implementation of comprehensive measures for the protection of consumers' rights based on international experience. The harmonization of the product safety regulation system with the international standards leads to the giving more freedom to the manufacturers, which in turn leads to the abuse of freedom by manufacturers. In a market economy consumers are getting better than government to prevent this kind of abuse.

The exactingness of consumers makes manufacturers more sensitive than the exactingness of government. Therefore, the important measures aimed at developing a culture of consumer awareness should be promoted.

4. CONCLUSION

One of the most important elements of the adaptation of the national standardization system with international standards should be especially the development of the private sector to new system requirements. Thus, that will require billions investment from the private sector for the transition to the new system to be able to apply the new national standards based on international standards. To do this, it needs to think in advance about the necessary investments and preferential loan programs. In addition to this, the new system requires from the private sector the establishment of closer cooperation and development of standards, based especially on the needs of the private sector itself. This in turn makes inevitable by private sector to take a more active role in this process, so in order to take that role by the private sector it should be properly informed and the mechanism for participation should be formed.

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FEATURES AND TRENDS IN THE DEVELOPMENT OF THE PRIVATE HEALTH FINANCING

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ABSTRACT
Nowadays, private sources in some degree complement public financing all over the world. Developed countries not only interfere with the growth of private capital in health finance, but also contribute to this. However, the specificity of medical services as a good and market of medical services requires a compulsory regulation of private sector activity by government. The paper considers factors that determine private sector growth, formation of private payment structures in the different country categories. Besides, there are analysis of private funds attraction and the goals and mechanisms of their regulation by government.
Keywords: *co-payments health expenditure, private health expenditure, private health insurance*

1. INTRODUCTION

The reasons for the expansion of private payments include:

- conflict between declared and really provided guarantees for free medical care;
- uncontrollable increase in health care costs; patients' desire to reduce financial risks in this area;
- increase in people's well-being;
- increasing the social importance of health;
- expansion of the range of medical services;
- high specialization of the provided services in health care;
- state policy to stimulate the involvement of private capital in the health sector (for example, granting certain benefits to legal entities when concluding collective PHI), etc.

Private financing in all countries of the world to some extent complements public health financing, but its share in the overall funding structure varies widely by country. Comparative characteristics of the share of personal expenditures of the population in the total amount of expenditures in individual groups of countries allow establishing a feedback between the economic development of the country and the participation of private financing in covering the costs of medical care. For example, in OECD countries, on average, almost three quarters of health expenditure is generated from public sources (either the state budget, social health insurance) (FOCUS on Health Spending, 2015). The level of the public expenditure on health is one of the determinants of attracting private payments at the time of receiving medical care. However, it would be wrong to think that an increase in state funding in absolute numbers helps to reduce private spending of the population. Studies show that the growth of state spending in absolute terms stimulates the growth of personal expenses of the population, as payments on co-payments and services that go beyond guaranteed increases.

The change in the ratio of state and private expenditures in this case is determined by the comparative elasticity of state and private expenditure on income (Xu et al, 2010:12). Studies show that in low-income countries, public health spending grows in parallel with GDP growth, and cash payments lag behind GDP growth. In middle- and high-income countries, public spending on health is growing faster than GDP, while payments from the pocket are growing in much the same way as GDP (Xu et al, 2010:14).

2. CHAPTER 2

2.1. Characteristic and structure of private expenditure on health in different groups of countries

Private payments include direct payments (purchase of services with payment at the time of receiving services in full), co-payments (covering part of the costs of treatment of services), private health insurance, and unofficial payments. Any country uses all these financial mechanisms in one way or another. Direct payments allow for a wider coverage of health services; to provide services of the best quality, at the right time, taking into account special preferences; to strengthen competition in the market of medical services. However, the spread of private payments, as experience has shown, reduces access to health services, worsens the health of the population and poses a threat to national security in the long term. In addition to the above spectrum of negative aspects, they are associated with a number of difficulties associated with ignorance of prices, qualifications of specialists, unpredictability of current and forthcoming monetary costs. On the other hand, the provider is not informed about the patient's previous health condition, which requires additional time and the use of additional diagnostic methods, which are often duplicated. Ultimately, this affects the quality of treatment and reduces effectiveness. These payments are non-consolidated, regressive, unfair, both horizontally and vertically. In addition, direct payments induce demand for services, and contribute to higher health care costs. Finally, in some cases, there are real opportunities for involving the patient in shadow relationships. However, the payment for treatment can be too high for the patient. Financial barriers of a minor degree are also associated with transport costs and lost income associated with disability (Goudge et al., 2009; Clemans-Cope et al., 2008). All this can lead to catastrophic financial losses. In some countries, 11% of the population faces such severe financial problems every year and up to 5% are in poverty. Every year around 150 million people suffer catastrophic financial losses and 100 million people are below the poverty line. Health care expenditure is defined as catastrophic when personal household payments exceed more than 40% of income after deducting expenses for basic needs (Report on world health, 2010). The analysis of household investigations from 59 countries showed a huge range in proportion to those that faced catastrophic payments from their pockets - from less than 0.01% in France and up to 10.5% in Vietnam. However, even in developed countries, this indicator could be more than 0.5% (Portugal (2.71%), Greece (2.17%), Switzerland (0.57%), and USA (0.55%). It is shown that 1% increase in the share of total health expenditure provided by cash payments is associated with an average increase in the proportion of households that faced catastrophic payments by 2.2% (Xu et al, 2003:566,570). The probability of financial catastrophe and impoverishment drops to a negligible level only if the share of direct payments drops to 15-20% of total health expenditure. This is an elusive goal, and richer countries may seek to implement it, while others should set themselves more modest short-term objectives. For example, WHO Member States in the region of South-East Asia and the Western Pacific region have set a target to reduce the share of such payments between 30 and 40% (Report on world health, 2010). The danger is that the receipt of revenues from paid services can become a major factor in the activities of suppliers, especially during a period of declining funding from the state. As for unofficial payments, information about their amounts is severely limited due to the fact that they are usually paid face to face and are prohibited by law.

We also have to take into account the corruptness and opacity of the system itself, which not only hides the facts of informal payments, but also in every way promotes their development and dissemination. The practice of informal payments is most developed in the countries of Central and South-Eastern Europe, the countries of the former Soviet Union. The main reasons for the spread of informal payments are the failure of public funding, low incomes of medical personnel, lack of knowledge of patients' own rights, and in some cases, the connivance of the state, which, in general, is quite such financing of the sphere, which does not require radical measures. The studies conducted by Shishkin S., revealed a significantly higher prevalence of shadow payments in health care in regions, where the practice of developing paid services is not encouraged (Shishkin, 2003:8). At the same time, if the policy of distributing funds received on the basis of paid services does not suit doctors, this may become an additional reason for the development of illegal relations. Informal payments are one of the least solidary and effective forms of personal participation of the population. In Kazakhstan, for example, hospitalization of one member of an insolvent family takes 252% of monthly income, while for affluent people this procedure costs 54% of the total income (Sari et al., 2000:38). One can note the following effect of informal payments on the demand, supply and quality of medical services:

- Increase progress of prices for services and decrease in the volume of services.
- Reducing investment in human capital.
- Reducing government revenues due to large volumes of employees' income through unofficial channels.
- Decrease in the quality of services, qualifications of specialists,
- Slowing services to force the consumer to make unofficial payments.
- Doing the effectiveness of health care financing as a result of erasing the picture of real distribution of funds in health care and introducing practices called creeping privatization or privatization from within.
- Creating an obstacle to the development of a private health care system.

Thus, the increase in the share of informal and direct payments in the overall structure of private spending on health reduces the effectiveness of the health care system, deforms the real picture of the demand for services, efficiency, breaks down the policy of stimulating the activities of health workers, worsens the health of the population, provokes an unjustified increase in health care expenditure. However, in some cases informal payments can be more progressive and more solid than formal payments: health workers have the possibility of individual treatment of patients, if these incomes are not recorded anywhere. Thus, formal and informal direct payments are the least socially acceptable and effective forms of private financing. Analysis shows that payments from the pocket at the time of the provision of medical services act as the main source of funding only in developing countries. At the same time, voluntary medical insurance is considered as the most solid, fair and effective form of attracting private funds of the population. In all OECD countries, PMI is more common than cash payments((The World Bank database, 2018). At the same time, the smallest gap is observed in Latvia and amounts to 597 and 610 US dollars, respectively, for cash payments and PMI, the largest - respectively 1054 and 4815 dollars (data for 2015). The PMI uses the principles of equivalence and closed damage mapping and reveals a direct relationship between the size of the insurance policy and the volume and quality of the medical services received. VHI is relevant only in the market economic system, where it is a financial mechanism for managing the risks associated with human health. Insurers are interested in quickly curing a patient with minimal expenses while doing so. Accordingly, they work with the best specialists. Moreover, insurers are interested in a healthy patient. To achieve this goal, a healthy lifestyle is promoted and encouraged in every possible way. Up to the point that VHI can be carried out by the condition, which provides for the payment of the sum insured not only in cases when the insured is sick, but also when he

does not fall ill. Payment for a healthy lifestyle is made after the termination of the contract (Qinzburq, 2004:61). On the basis of interaction with the state health system, are distinguished:

- Additional VHI programs, which include either those types of medical services that are not included in the guaranteed package, or higher conditions for medical care included in the state program. Naturally, these types of insurance imply a clear definition of government obligations;
- Substitute VHI programs, which give the choice between CHI and VHI. These programs are dangerous because wealthy people have the right to exit their public funding system, which undermines the principle of solidarity. As a consequence, substitute VHI programs have a local distribution (in the Netherlands and Germany), and that are connected with historical traditions;
- Residual VHI programs are designed to compensate those expenses that are not covered by MHI. These programs are widely used in countries where co-payments are practiced. In France, for example, private insurance is widely used to cover approximately 20% of the cost of inpatient care, not funded from SMI funds (Sheiman, 2001:63).

Private health insurance is one of the most solidary and effective mechanisms for financing health care. It is regressive in the cases when it is preferential or compulsory and when the majority of the population uses this for insurance (USA, Australia). Additional private insurance is regressive, especially if middle-income people buy insurance of this kind. An additional alternative or substitute form of health insurance is the least regressive and even moderately progressive because insurance is bought mostly by wealthier people. Private health insurance does not comply with the principle of "horizontal" social justice, i.e. the patient in the original pays more than healthy one. In the countries where there exist the options for withdrawing from the CHI system (Germany, the Netherlands, Spain) (for Germany, the transition from CHI system to VHI is allowed only if the annual income exceeds 59,400 euros), most of the remaining people have low incomes and high risks. Therefore, this system is regressive. However, the possession of broad statistical information creates conditions for the selection of risks, when insurers, based on their material benefits, try to screen out clients with a high probability of disease occurrence - there is a so-called negative selection of risks. Although in many countries such screening is prohibited, mass media can find a way out by offering, for example, programs that do not include disadvantageous types of health services. It is possible also a positive selection of risks, in which the selection is made by the already insured persons, who can impersonate a relatively healthy person and at the same time know that he, needs serious treatment. An important factor is the risk of dishonest behavior of patients, when the possibility of free treatment for medical services induces a temptation for repeated unnecessary appeals. This leads to an unjustified increase in expenditures and the irrational use of limited resources. The same problem takes place in the national insurance system, be it a social or budgetary form. To combat such a manifestation in many countries are introduced co-payments. In the countries of central Europe (Czech Republic, Hungary, Poland, Slovakia) the cost sharing ranges from 24 to 27% (Baji et al., 2012) and cover mainly dental care, pharmacology, and ophthalmology. The co-payments are carried out in the following forms:

- Co-payments of the insurance premium, implying a contribution paid by the employee as an addition to the employer's contribution;
- Co-payment of citizens who are paid for when they receive medical assistance (in the form of a fixed fee or a fee for each service);
- Deductibles - deduction of a certain amount from all insurance payments;
- Balance invoicing - an additional fee charged by the supplier beyond what he receives from a third party payer.

The essence of the co-payments is the joint participation of the state and the population in covering the costs of medical care. This is one of the most fair and effective form of attracting private funds of the population. At the same time co-payment of the insurance premium is better ensured by the principle of social justice, because in the process involved both sick and healthy people. Proponents of charging user charges say that such charges reduce the overall demand for services (initially it was assumed that the number of unreasonable calls is reduced, since completely free services create the temptation of repeated treatment without special need) and increase the income that can be used to expand the supply of medical services. Co-payments are used to ensure continuity and coordination of treatment, if, for example, visits are made to a specialist without referral of a family doctor. The introduction of co-payments to a more expensive drug contributes to a more rational choice in favor of generics. In addition, the introduction of co-payments makes patients not only more responsible for their health, but also more observant about the actions of medical personnel. In the Netherlands in 2013, people had to pay 350 euros (420 USD) before claiming compensation from health insurance. In Switzerland, there is an annual franchise of 300 Swiss francs (211 USD) for all services. However, consumers can choose insurance contracts with lower premiums and higher deductibles (up to 2,500 Swiss francs or 1,756 USD per year). In the United States, many health insurance plans have common deductions. For example, 78% of employees faced franchises in the framework of health insurance plans funded by employers in 2011. The average total annual deductible for all employees covered is $ 1,135 (Paris et al., 2016:22). At the same time, as a result of some studies, it appears that cost sharing reduces the intensity of use of both inefficient and effective procedures. Studies of Grady, Christersen, and others allow us to draw an important conclusion that co-payments restrain the use of preventive medical care, especially in risk groups-that is, in elderly patients, as well as in patients with chronic diseases, low incomes and (Christensen, 1995; Rice & Morrison, 1994). Another question of interest to us is how important is the role of co-payments in raising the revenues of the health care system. The data allow one to establish that the revenues received from official fees rarely exceed 5% of the total amount of health care income. At the same time, we should not forget that the introduction of a system of co-payments can be accompanied by huge administrative and time-consuming costs. Thus, in 1999, the Netherlands abandoned the cost-sharing system introduced in 1997 due to the high administrative costs associated with carrying out the life of the new policy (Kasje, et al., 2002). For user charges to be effective, one needs to ensure that the cost of charging fees is lower than the additional revenue. The experience of developing countries shows the need to overcome significant administrative, informational, economic and political obstacles. An example of an unsuccessful policy can be cited Czech Republic, where the introduction of insurance co-payments in the absence of incentives to contain costs both from the supplier and the patient led to the opposite result and contributed to a twofold increase in health care costs in the first two years of medical insurance (Massaro et al., 1994:1872).

2.2. State policy on private sector involvement

Although health is one of the priority areas, health care spending should be within the framework of reality, expediency, rationality. Steady growth in spending in the sphere requires significant diversion of funds from other sectors of the economy. Moreover, these costs, due to a number of healthcare features, can not be naturally regulated by market mechanisms. They require the development of the public sector, state regulation, lead to an increase in taxes with all the ensuing consequences. The high level of health care costs not only withdraws part of the funds from production, but also deforms the market, shifts it from the liberal model to the radical one. From this point of view, attracting private capital to the health sector allows one to relieve the state budget, to develop other spheres. In addition, it is possible to ensure the timely receipt of treatment; provision of better services; the formation of the necessary infrastructure;

increase the incomes of medical workers, introduce new technologies, and innovate in the sphere; strengthening competition in the market of medical services. At the same time, countries that have developed health systems are trying to maximally finance the health sector at the expense of public funds (or social insurance funds). Realizing the complexity of the choice of private capital as an additional source of health financing, the governments of the countries try to maximize the share of state funding, and the involvement of private funds into two socially and financially justified forms - VHI and co-payments. The choice of the structure and volume of free medical services defines a field that is free for the development of the private sector. From this point of view, it is very important to choose the right criteria when forming a state package and to improve this process. In Switzerland, for example, personal expenses for dental care that are not included in the guarantee package constitute about 5% of total costs, and for the whole spectrum of primary care, funded mainly by the SMI - only about 4% (De Pietro et al. 2015). There are several models of prioritization. The Dutch model of prioritization, for example, used four criteria: the need, effectiveness, cost-effectiveness of treatment and the possibility of paying for treatment by the patient. The Swedish model is based on three basic ethical principles, the sequence of which determines the order of priority:

- The principle of human dignity: all people have equal dignity and equal rights, regardless of their personal qualities and functions in society.
- Principle of need and solidarity: resources should be directed to the areas of maximum need. It should also pay attention to those groups of the population who are not aware of their human dignity, those who have less opportunity than others to force themselves to hear or use their rights.
- Principle of economic efficiency: the choice of field of activity or methods should depend on a reasonable correlation between costs and economic effect, which is measured by improving health and quality of life. This principle should be used only when comparing different methods of treating the same disease (Bihari-Axelsson, 2002:6-9).

The specificity of medical services as a commodity, as well as the medical services market, requires mandatory state regulation of the private sector. Intervention by the state implies both direct and indirect regulatory measures. To direct it is possible to carry obligatory participation in system of division of expenses; the choice between CHI or VHI systems; the introduction of certain restrictions and prohibitions for insurers on VHI; establishment of the order of the provision of VHI and paid services, co-payments; wider use of licensing and certification; rarely a ban on the introduction, for example, of private payments. Indirect changes include public health financing, the size and structure of the proposed MHI aid, health infrastructure, etc. Analysis shows that private payments can act as an additional, but not an alternative source of health financing. The policy of the state in attracting private funds implies the formation of an additional source of financing, without violating the principle of social justice, solidarity, as well as the equality and accessibility of medical services for all citizens of the country. In order to stimulate VHI, tax privileges are granted to insurers and insurers, the choice is possible between MHI and VHI, the introduction of public VHI. The Governments of Germany, the Netherlands and, to a lesser extent in Belgium, are actively intervening in the replacement VHI market to ensure the availability of this type of insurance for people with low incomes, pre-insurance illnesses and for the elderly. The governments of Germany and the Netherlands also seek to prevent the consequences of selecting applicants according to the degree of risk, within the framework of legally approved and voluntary health insurance schemes. Measures are being taken to increase the availability of private insurance. In France, in 2000, free extended LCA was introduced for people with low income, so coverage of the VHI population increased from 85 to 94% (Mossialos & Thompson, 2004:18-22). One of the main problems in the VHI market is the price increase, the more this applies to individual VHI.

It was assumed that the system for the formation of a single VHI market, approved in 1994 by a Council of Europe directive, would increase competition between insurers, while expanding the choice of types of insurance for the consumer and reducing its cost. However, the increase in competition did not affect the amount of contributions, in particular for individuals. Conversely, individual insurance prices often increase faster than health care costs in general. Therefore, the insurer is required to inform potential customers of the likelihood and scale of the increase in contributions, and it is also recommended to publish data on the increase in contributions in recent years (Mossialos & Thompson, 2004:20). As for co-payments, they are subject to a narrow range of medical services - as a rule, medicines, dental and ophthalmologic care. Inpatient and outpatient primary health care, as well as laboratory tests and diagnostic studies, are covered by the public health system at a higher level. In general, the share of private expenses related to participation in payments under state insurance is insignificant. In Germany, for example, the amount of co-payments paid by patients in the social insurance system is less than 5 billion euros, which is only one-seventh of all cash payments (Busse & Blumel, 2014:133). At the same time, the necessity of the service, to which the co-payment will be applied, its effectiveness, efficiency will be strictly taken into account. Thus, in the group of medicines, the most necessary medicines - for the treatment of life-threatening diseases - are subject to a smaller amount of co-payment for the patient. An analysis of the survey conducted in Ireland showed that in relation to treatment for dentists, the most well - off 20% of the population accounted for more than 28% of applications (Zaborovskaya & Shishkin, 2005:17). Nevertheless, in order to maintain the principle of social justice, in almost all countries there are groups of exceptions from co-payments - children, the elderly, pregnant women, patients with low incomes, with disabilities. They are either generally exempted or are paid at reduced rates. Annual maximums for co-payments are introduced, after which the insurance organization begins to pay services at full cost. Thus, co-payments in developed countries are used not so much to attract additional funds, but to rationalize the funds used, as well as to reduce cases of dishonest treatment.

3. CONCLUSION

Health care is one of the priority spheres of any state. Not surprisingly, health spending in many developed countries is faster than their economic growth. At the same time, growth in health care expenditure is observed both during economic growth and during the economic crisis; although during the crisis there is a drop in growth rates. But an analysis of the structural dynamics of expenditures reveals a more significant increase in private payments in the pre-crisis post-crisis period, as well as in the crisis period. With the overall structure of expenditure, a more significant increase is observed in private insurance. In part, the private sector has expanded as a result of measures introduced in a number of countries. They included an increase in co-payments for prescription drugs and an increase in the reimbursement threshold for pharmaceuticals, a reduction in generic reimbursement, a reduction in dental packages, an increase in inpatient costs, an expansion of primary cost-sharing, and a reduction in benefits for certain population groups. The determining factors in attracting private sector are: economic development of the country, absolute and relative indicators of public health financing; volume, structure, quality of medical services provided in the framework of national insurance; the elasticity of public and private expenditure on income; and also cultural, historical, geographical, political, social features of the country. At the same time, the specificity of medical services as a commodity and the market of medical services require mandatory state regulation of the private sector. The spread of private payments, as experience has shown, reduces access to health services, worsens the health of the population and creates a threat to national security and the prerequisites for increasing health care costs in the long term. The high costs of obtaining medical care, loss of income can lead to financial catastrophes, which are

observed in both developing countries and developed countries. Analysis of the forms of private fundraising shows that payments from the pocket at the time of receiving medical care are the most unacceptable: out-of- pocket payments and unofficial payments. They are characterized by a violation of continuity, coordination in treatment; uninformed about their rights; unpredictability of current and forthcoming monetary costs, inefficiency. These payments are non-consolidated, regressive, unfair, both horizontally and vertically. They contribute to increasing health care costs, deform the real picture of the demand, the effectiveness of medical services, disrupt the policy to stimulate the activities of health workers and create conditions for involving the patient in shadow relationships. That is why direct and informal payments cannot be an alternative source of financing, and as the main mechanism for attracting private capital is used only in developing countries, although to some extent they are also inherent in developed countries. In the high and middle income countries, the most solid and efficient types of private payments are widely used - private health insurance and co-payments. The policy of the state in attracting private funds implies the formation of an additional source of financing, without violating the principle of social justice, solidarity, as well as the equality and accessibility of medical services for all citizens of the country. This implies reducing the share of direct and unofficial payments, and encouraging the expansion of VHI and co-payments with the introduction of new mechanisms to increase their social equity and fairness.

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INNOVATIVE APPROACH TO HUMAN CAPITAL MANAGEMENT UNDER CONDITIONS OF STRONG TURBULENCE OF FOURTH INDUSTRIAL REVOLUTION

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ABSTRACT

Traditional approaches to human capital management do not work practically at all nowadays, since they are based mainly on the hypothesis that employees are conscientious. An enterprise would act as a provider of a social and scientific stereotype of an employee's labor behavior. At that, the focus of individual self-conscience, which grew up during the third industrial revolution, has shifted considerably towards closeness, social deprivation, and economic alienation of a personality from an enterprise, society, and family. Even though present-day CEOs are well aware of the logics of the motivation process, their awareness does not provide comparative advantages in human capital management, since motives are not obvious. Traditional need-based and process-based theories (by F. Taylor, A. Maslow, D. McClelland, F. Herzberg, V. Vroom, J. S. Adams, etc.) make it possible only to guess which particular motives prevail, but it is difficult to "identify" them. Even application of the Total Performance Scorecard (TPS) by H. Rampersad is limited considerably. The main drawback of all those theories is the axiom of progressive development of a company, which does not consider with mentalities of working generations. Owing to strong turbulence of the world economy, one should change approaches of human motivation by emphasizing conscious development of individual human capital; the paradigm of management of those processes at an enterprise has to be altered actively. This paper analyzes employees' motivation to labor and conscious development of their personal human capital by applying J. Collins's developments related to continuous self-improvement of companies; our analysis is based on reasons for bankruptcy of the world's largest companies. Special attention is paid to changes in mentality of employees related to Generation X, Generation Y (the Millennials), and Generation Z. This article presents a complex sociological survey that has concerned Russian and Azerbaijani employees and their employers; this survey has confirmed efficiency of the suggested approach to productive management of human capital.

Keywords: *human capital management, innovative approach, mentality of generations, motivation, turbulence of economy*

1. INTRODUCTION

Modern managers are facing a problem that they did not have to face before – the traditional approaches to management of human capital, which used to be efficient, are of little efficiency now; quite frequently their application leads to the opposite result. Now we all cannot but consider with the current reality of the fourth industrial revolution, which, firstly, is a challenge for the humankind, and secondly, it disorientates the traditional views on life (including labor life), the society, and the family significantly.

New progressive technologies, which have broken into all the life spheres, have changed employees' and employers' labor mentality considerably. Besides, one should not forget about a considerable difference between Generations X, Y, and Z. That is why one has to develop innovative approaches to management, considering with tendencies of technological development and mentality of working generations.

2. APPROACH

One could classify the traditional approaches to motivation in the theory of human capital management as follows: the original and the modern concepts.

2.1. Human Capital Management during the First Industrial Revolution (Late 18th – Early 19th Centuries)

As for the original concepts, which, in our view, may be regarded as pre-scientific ones, one could mention "the carrot and stick policy" applied by managers in large scales practically up to the middle 19th century. At that time, an employee was regarded as an intimidated, uneducated, and always hungry being, who was unable to approach his or her work creatively, as he or she had to earn for living to survive. All that formed a psychological rejection of innovations in the labor process. An employee brought this behavioral stereotype to his or her family, upbringing future generations imperceptible to other means of motivation except for "the stick". This stereotype also restrained one's willingness and need for education. Searches for "sweating" systems of management, which were firmly instilled in management's conscience and which aimed to maximize profits with the workforce's minimal wages, resulted in a considerable slowdown of the social economic development. The human capital was underestimated considerably. Labor remuneration on the point of physiological survival, absence of finances for quality healthcare and cultural development resulted in a rapid "wear and tear" of the human capital. There was a significant misbalance towards unclear knowledge at enterprises, which slowed down introduction of innovations, owing to a high level of staff turnover and a low labor life expectancy of those who had that knowledge. As it is well known, the era of the first industrial revolution began in the late 18th century. It resulted in a mass application of water and steam engines, machinery, and development of metallurgy; it also meant a complete restructuring of the society, urbanization, and a sharp increase in labor output. One should remark that K. Marx regarded a quality change in social characteristics of the labor process and the social structure as the main result of the first industrial revolution. All that required a new type of an employee. Industrial production based on machinery cooperation formed an employee of an essentially new type, who would be able to work as a team member. The very paradigm of views on the labor process was changed – from personalized labor (when the labor was of manual nature) to collective one. One of the first authors, who gave scientific grounds for the pre-scientific concepts of innovations, was A. Smith, whose late-18th-century "An Inquiry into the Nature and Causes of the Wealth of Nations" emphasized the fact that any human would always strive to improve their wealth. That is why one should apply "the carrot method" more actively. Owing to economic development of the society, in his view, rising wages and wealth result in the population growth. One should remark that A. Smith grounded the necessity of higher wages for employees whose positions require special training and education. F. Taylor's work "The Principles of Scientific Management" points out that owing to a new structure of labor, one should pay special attention to more educated people and appoint them to management positions. At that time, the science of management undergoes a new development stage; emergence of scientific management relates to it. Labor time keeping and regulation are introduced. F. Taylor, the founder of this research school, based his ideas on the thesis "high wages and a low labor cost". The first industrial revolution meant not only a shift from the agrarian structure of economy to the industrial one; it also implied the first bonus

systems of labor remuneration. In 1901, H. Gantt developed the first bonus system for labor remuneration; once employers implemented it, they saw the labor output double. H. Gantt was the first to emphasize the key role of the human factor in economic development; he pointed out that a human ought to regard labor not only as earning for living, but also as something satisfying.

2.2. Human Capital Management during the Second Industrial Revolution (Late 19th – Early 20th Centuries)

A high speed of scientific progress during the first industrial revolution resulted in entirely new technological solutions, among which one should mention mass electrification, telephonization, breakthrough technologies in the oil and chemical industries, and invention of automobile. A significant intensification of production required more and more educated employees, whose wages would be high. Need for manual labor decreased dramatically; the social stereotype of value of education began to form. The second industrial revolution convinced both employers and employees that costs for education were non-recurrent; they could be recovered throughout the whole labor life and during several production cycles; educated employees are more efficient for business and more perceptible to new technologies. Yet, as their education level increases, employees become more demanding to considering with their needs. This is when H. Fayol and M. Weber formed the administrative school of management. The researchers believed that each employee ought to strive to accomplish standard and nonstandard goals set for him or her. In accordance with this paradigm, various means of compensation and rewards for additional and high-quality work are welcomed. At that, the administrative school of management laid special stress on not employees' self-development and their non-material needs, but their accomplishment of predetermined goals of production. Besides technical and technological breakthroughs, a rapid growth of Psychology and Sociology takes place at that time. Practically simultaneously with the administrative school of management, the human relations school is formed (E. Mayo, M. Follett); it accentuates on the drawbacks of the former one. These researchers based their school on the paradigm that employees' actions are motivated by mainly non-economic factors (as advocates of earlier management schools believed) – by various needs that money can meet only partially. For the first time it was grounded that confrontation between employers and employees may be relieved by meeting the workforce's social and psychological needs, which can result in an increased labor output by eliminating employees' alienation from the outcomes of their labor. Having accepted this paradigm, the researchers asked themselves the question "How do we meet employees' needs if we do not know them?" As an answer to this question, the behavioral school was formed (D. McGregor, A. Maslow, and F. Herzberg); it focused on increasing the efficiency of an organization by establishing human relations among its workforce. One could identify two essentially different approaches that have formed the need-based and process-based theories of management. The need-based theories (A. Maslow, C. Alderfer, D. McClelland et al.) identified internal motives that make people act a particular way, i.e. they are based on studies of their needs. The process-based theories of motivation (V. Vroom, L. Porter & E. Lawler) are based on human behavior considering with their perception and cognition, expectation of a reward, and their personified assessment of how well-deserved the obtained reward has been. However, despite numerous speculations concerning employees' needs, nothing new (except for piece-rate and time-rate labor remuneration) was invented and suggested. Various motivational non-material approaches to workforce management gave a short-term result.

2.3. Human Capital Management during the Third Industrial Revolution (1970s – Late 20th Century)

The multiplication effect of scientific knowledge of the 20th century resulted in a shifted focus of added-value obtainment from production to projection. If the earlier industry development stages required the maximal amount of resources at the final product manufacturing stage, the later times prioritized the stage of product development. Formation of profit began to take place at the development stage, not at the stage of production. The third industrial revolution took place thanks to digitalization, development of electronics, total automation and robotization of the production process. As I. Agamirzyan states, "the main work is done not on the shop floors; it is done in offices full of designers, engineers, and programmers. On unmanned shop floors, hardworking and industrious robots create products as per the set program. Economic leadership will belong not to the owner of industrial capacities, but to the possessor of the best engineering culture. Modern economy is justly named knowledge-based, since it is indeed based on knowledge" (Agamirzyan, 2018). Accordingly, the approach to increasing the workforce's interest in highly efficient labor underwent changes as well. This time saw the first labor remuneration systems based on employees' participation in the corporate capital. However, they were not applied in large scales. Research focused on strategic management, as part of which attempts to connect the corporate development strategy and decomposition of strategic tasks to the level of structural units and employees were made. The well-known Total Performance Scorecard (TPS) by H. Rampersad has proved its efficiency. As part of this system, a reward matrix was developed; it helped employees realize their positions and identify themselves in relation to corporate values and activities. H. Rampersad wrote that TPS is a continuous process of non-stop, consecutive, and regular enhancement, development, and education; it aims at a sustainable growth of results of activities that employees perform. Enhancement, development, and education are the three basic constituents of this integral management theory. They are in close correlation, and a balance ought to be between them (Rampersad, 2005, p. 6). H. Rampersad, one of the few modern researchers, who pays special attention to internal, not external, human motivation, insists that material motives exert a rather limited influence upon the present-day world. He developed the Personal Balanced Scorecard (PBSC), which includes four groups of elements: the internal group – employees' health and morale; the external one – an individual's social relations; knowledge and education – skills and abilities to study; the financial one – financial demands and ways to meet them); it also includes the sequence of an individual's actions to achieve them. Ways to achieve harmony in each element imply making up a particular "roadmap" for an individual to achieve their life goals by performing labor activities in accordance with the values that guide them. The "roadmap" makes it possible to reveal the shift from a personal mission via personal vision, personal key roles, personal critical factors of success, and personal goals to personal indicators of activities and measures to improve them. A considerable achievement of H. Rampersad's development is an opportunity to demonstrate the workforce adherence to individualistic values with a well-manifested collectivist model of interaction, thus meeting one's needs in involvement. Simultaneously with these positive changes in production technology, employees' knowledge become out-of-date much faster. The total sum of human knowledge doubles each two or three years. Knowledge increases exponentially. Each new knowledge provokes increase in knowledge in adjacent spheres, thus giving birth to a new array of knowledge. All that results in continuous organizational changes, which the workforce resists. Fear is a natural companion for any human, who is afraid of not finding the right place in a new architecture of production. The speed of emergence of new knowledge is much higher than that of employees' training. It provokes people's closedness; as a result, it leads to their social deprivation and economic alienation from their employers, their society, and their families. Prior to the fourth industrial revolution, the humankind faces an unprecedented challenge –humans as a source of labor force

are fully replaced by AI machines, which surpass them hundreds of times. An avalanche-like increase in demand for highly intelligent employees results in objective barriers that are difficult for common employees to overcome and enter the market of highly qualified labor; thus, their work is paid poorly, and an employee cannot make that better. It is aggravated by the fact that researchers' developments included the axiom of progressive development of organizations and did not consider with mentalities of working generations. These are the problems that managers have had to face in the early 21st century.

2.4. Human Capital Management during the Fourth Industrial Revolution (2000s – Present Days)

Global industrial networks, the Internet of Things, the virtual and augmented reality, blockchain technologies, cloud computing – all these innovations have penetrated the production process of present-day companies over the last decade. The fourth industrial revolution has influenced the world stronger than all the three previous industrial revolutions put together. K. Schwab, one of the first researchers to concern the fourth industrial revolution (Schwab, 2017), believes that the current level of management and awareness of the current changes in all the spheres of human existence is rather low if compared with the necessity to reconsider the economic and social systems. Today the question is not whether we are prepared to accept these changes. The question is whether we can comply with the new requirements towards new employees and managers. Implementation of new technologies relates to disqualification of existing employees, a considerable retardation of educational programs and individual paths of an individual and the society. As K. Schwab justly remarks, changes concern not only what we do; they also concern what we are. Here developments by J. Collins could help (Collins, 2012, p. 34), since this researcher foresaw increased contradictions and a high turbulence of economic development. Already in the early 21st century, he considered reasons for not soaring, but slumping of the great business empires. J. Collins pointed out many times that information vacuum is one of those reasons. To overcome this obstacle, according to him, information transparency is crucial. Nowadays the world transparency and active penetration of the digital world into the physical and biological one provide all the opportunities for information transparency. In addition, J. Collins insisted that reasons for slump of leading companies are due to not their CEOs' unawareness of the traditional theories of motivation or absence of an MBI degree, but their inability to identify their companies' positions at a particular stage of decline. The paradigm of management must be revised – it must aim to search for reasons for a company's potential fiasco, not for its success. J. Collins pointed out that once a company has achieved success, it experiences some kind of euphoria and begins to take its success for granted. At the peak of its success, its managers stop being curious and striving to acquire new knowledge. It is in direct relation with the fact that companies are distracted by external threats and by their struggle to retain their market segment, so they pay too little attention to innovations, which, in their turn, require staff's continuous self-improvement.

2.4.1. Stage 1

Arrogance due to success. At this stage, personnel should be motivated by not only headhunting the best specialists with the highest wages, but also arranging regular trainings (both internal and external) to sustain a high level of staff's education and competences; particular employees should study viable innovations to be able to apply the creative approach to future products afterwards.

2.4.2. Stage 2

Uncontrolled striving to get more and more. Striving to make more and more revenues, companies start appointing incompetent people to the key positions; their incompetence is

concealed with bureaucratic procedures, which forms another vicious circle – to comply with those procedures, one has to increase the staff by hiring a large number of incompetent employees, since competent ones either leave that company or become mediocre members of staff. According to J. Collins, bureaucratic rules and regulations erase the ethics of freedom and responsibility from the skeleton of key values and highest standards, so the virus of mediocrity (Collins, 2012, p. 59) infects the company. Besides, easy money at this stage undermines control of expenses: the company reacts to growth of its financial problems by increasing its prices, not by analyzing its problems. Personal interests of managers and their surroundings (material demands, fame, merits, etc.) are set above the company's interests. The top manager's close surrounding forms his or her belief in his or her being an exceptionally competent manager, so the authority succession procedure is ignored. At this stage, when strategic maps are developed to motivate staff, one should provide enough assets to hire competent specialists and "bring up" successors to assume the key top positions afterwards.

2.4.3. Stage 3

Denial of risk and danger. At this stage, there is a tendency to overestimate positive data and underestimate negative information. The company management proclaims ambitious aims, which are not supported with the right resources – this is a direct consequence of the impact that a top manager's flattering close surrounding exerts upon that manager. Any opinions that differ from the top manager's views are not tolerated, so there is not enough room for constructive discussions. Consequently, the number of failures grows, and management searches for the guilty instead of assuming its own responsibility for those failures.

2.4.4. Stage 4

Attempts to save the company. At this stage, as a rule, companies undergo radical changes, which is accompanied with a promotion of its future achievements, thus trying to increase its workforce's and external surrounding's motivation to work efficiently. At the same time, radical changes literally exsanguinate the company and its staff both energetically and financially. Its key values are undermined; its staff starts searching for another job. At this stage, one should pay much attention to internal programs of staff's retraining, improvement of their psychological status, and adaptation of the key values to the current reality, provided those changes were made after having them discussed actively by the staff.

2.4.5. Stage 5

Capitalization prior to crisis or death. Professor E. Lazear from the Stanford Graduate School of Business described this final decline stage and identified its main feature: absence of money. He pointed out what one should always remember: one can be profitable and at the same time go bankrupt. A bright example is the 2008 address by the General Motors to the government for financial aid. Once a company has entered Stage 5, all the constituents of its strategic map must be reconsidered and reformulated: from that company's merger with another company or acquisition by it (as a way to ensure its survival) to search for a new leader and the team of "changers". First of all, management should set the priorities to ensure its staff's social protection and form its positive mood. If a company intends to struggle for its survival, Stage 5 may be transformed into the stage of renewal and revival.

2.5. Specifics of Managing Employees Related to Generation X, Generation Y, and Generation Z

In late 1990s, N. Howe and W. Strauss raised the issue of considerable mentality differences between the three successive generations, whose representatives currently work or are about to work (Howe, Strauss, 2000).

The researchers correlated those differences with the conditions under which those people were growing. Now one could identify Generation X (born in 1963-1983), Generation Y (1984-2003), and Generation Z (born after 2003). Generation Xers, also known as wanderers, were born and raised at the beginning of the third industrial revolution. They were influenced by their parents and the society formed at the end of the second industrial revolution, whose specific feature was orientation at collective forms of labor organization, development of the raw materials sector of economy, and sustainability of the bank sector. The emerged reality of the third industrial revolution transformed human conscience; it formed the stereotype of being lost and uncertain in what would happen tomorrow. That is why the specific feature of Generation X is orientation at hard and persistent labor, individual labor assessment, being prepared for continuous career making, and relying only on yourself. At the same time, these people are open for education and regard it as an integral part of their careers, but only within a particular sphere of activities. One should remark that Generation Xers adhere to family values; they are willing to get married and have children at a young age. Their main motivation is their need for security, which implies a steady salary; they do not welcome flexible labor remuneration systems so much. Generation Yers, or the Millennials, was formed during rapid changes in technologies, digitalization of economy, considerable fluctuations in the bank sector, and the beginning of the fourth industrial revolution. Brought up by Generation Xers, having watched how slowly their parents were making their careers, how they restrained their own entertainments and sacrificed themselves for the sake of their children's education, this new generation has formed an antagonistic view on life. They are not prepared to restrain themselves; they aim to make a career quickly; they are very mobile and strive to develop in several professional spheres. To achieve their goals, they are ready to study a lot; their level of technical and information literacy is high. Their basic motivation is financial rewards, availability of high-tech equipment on their workstations, the democratic style of corporate communication, absence of a rigid dress code, and a relaxed atmosphere. Generation Z was formed during the fourth industrial revolution. They are true offsprings of Industry 4.0. Their values were formed during the crisis period, when a human's position in the society, in production, and in the family paradigm was being revised. This generation is believed to become extremely gifted creators and makers, whose philosophy will be unique, who will change the world completely. Now they are just entering the labor market, so it is quite difficult to predict their labor behavior. That is why, when one develops creative approaches to management of the corporate human capital, one ought to consider with mentalities of the target generations; one should remember that the traditional approaches are not efficient any more. To have our conclusions confirmed, we have conducted a sociological survey of Russian and Azerbaijani employees and employers, which has proved a low efficiency of the traditional approaches to management of the human capital. All the surveyed experts agreed that to make management systems more efficient, one ought to consider with mentalities of the working generations and establish personified systems of management that consider entirely different needs of Generation X and Generation Y.

3. CONCLUSION

The authors of this paper have come to the conclusion that the traditional approaches to management of the human capital are not efficient nowadays owing to the humankind's confusion, which is due to the challenges of the fourth industrial revolution, a high turbulence of economy, absence of a well-formed public opinion related to an individual's labor identification, a considerable shift of the focus towards an individual's closedness, social deprivation, and economic alienation from their employer, their society, and their family. The authors have confirmed that formation of a new innovative approach to efficient management

of human capital should be commenced by studying the mentalities of the generations at which managers' activities are aimed.

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FACTORS AFFECTING DEVELOPMENT OF MUSSEL FARMING IN THE BALTIC SEA REGION

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ABSTRACT

In the Baltic Sea region, several industries have affected different elements that have shifted mussel farming industry's importance. Such changes have influenced fishery industry, too. After analysing different factors it was highlighted that fishery has lost its importance in the Baltic Sea Region.

Aim of the research: to investigate factors affecting the development of mussel farming in the Baltic Sea Region by analysing views of public administrators, entrepreneurs and researchers in selected Baltic Sea Region countries obtained in the survey.

Research methods used: Scientific publication studies on mussel farming development supporting and braking factors, survey of different stakeholders in mussel farming – public administrators, entrepreneurs and researchers; expert interviews. For evaluation of different aspects affecting development of mussel farming evaluation scale 1 – 10 was used, where 1 – do not affect; 10 – affect in great extent. Data obtained in survey were analysed with indicators of descriptive statistics, cross-tabulations, correlation analysis, and factor analysis.

Mussel farming industry is not among the most important industries in the national economy, but it has considerable importance for cleaning seawater and providing new products for consumption, the development of mussel farming industry might encourage marketing events. Among the most important factors affecting mussel farming in the Baltic Sea region were indicated education (including informal education), human resources as well as marketing events. To promote mussel farming industry, it was revealed that end-use market and government support are important factors that affect development of mussel farming industry in the Baltic Sea Region.

Keywords: *Marketing tools, Mussel farming, Survey*

1. INTRODUCTION

Mussel farming is a new field in the Baltic Sea Region that needs to develop the product in the market. Mussel farmers in more saline water focuses on mussels for human consumption, however due to salinity and environmental conditions mussels which are grown in the Baltic Sea are much smaller, therefore small mussels are not demanded so much as human food in comparison to large size mussels which has been grown in other seas. In the Baltic Sea farmed blue mussel is smaller, has thinner shell (Remane, Schlieper, 1972, p. 1-350, Kautsky et al., 1990, p. 203-210) and previous research confirm that they are suitable as feed for animal. Analysing the product and its developing potential it is important to consider developing factors of mussel farming in the Baltic Sea Region based on experts' viewpoint. The Baltic Sea is densely populated, and economical activities have influenced the Baltic Sea and eutrophication has become widespread matter in coastal areas (Ronnberg, Bonsdorff, 2004, p. 1161-1177) and

therefore different innovative approaches for production development of new products including blue mussel production are also on researchers agenda.

2. THEORETICAL FINDINGS

The outcomes of wide socio-economic analysis as well as stakeholder's interest perspectives in mussel farming in the Gulf of Trieste were published and discussed in academic environment and research papers by researchers (Canu, Solidoro, 2014, p. 55-62). Often there are asked reasonable questions: is mussel farming large or small industry – those discussions are on researcher's agenda (Gonzalez-Poblete, et al., 2018, p. 119). Many investigations have been done in the context of Norwegian Blue Mussel farming taking into account the strategies as well as the opportunities realized in an emerging industry (Ottesen, Grønhaug, 2004, p. 19-39). Ahsan and Roth (2010) have published their research on challenges, development and application of risk management strategies applied by mussel farmers in the emerging mussel aquaculture industry in Denmark. Innovative approaches for food are on academic researchers agenda discussed in scientific environment including also blue mussels (Hjalager, Johansen, Rasmussen 2015, p. 2716). The research on oyster, mussel production and consumption in France within the European market has been done focusing on the realisation of produced products (Girard, Mariojouls, 2003, p. 319-334) as traditionally this those products are very popular in France and neighbouring countries. Theodorou, et al. (2011, p. 859-874) have discussed in their scientific publications the outcomes of academic research on production and marketing trends of the cultured Mediterranean mussel in Greece taking into account such aspects as history, experience and findings. Mussel filters water and reduces nutrients in water and those aspects are very important to support production of blue mussels also from country management side and therefore numerous research findings are discussed world-wide (Gren, Lindahl, Lindqvist, 2009, p.934-945; Stadmark, Conley, 2011, p. 1385-1388). Evaluation of Mediterranean mollusc producer's knowledge about environmental factors was analysed by Rodrigues et al. (2015, p. 1161-1177). Although in India mussel farmers literary are very low (Mary, Kailasam, Jansi, Patterson, 2015, p. 5), the studies established the fact that literacy and education has played a key role in the adoption of mussel farming practice in Kerala (Kripa, Mohamed, 2008, p. 612-624). According the political documents (Baltic Sea Action Plan, 2007, 2013) the coastal countries of the Baltic Sea have agreed to reduce nutrients in the water to achieve "good environmental status".

3. EMPIRICAL RESEARH RESULTS

Expert survey was organised to analyse different development aspects and different social partners attitude (government, entrepreneurs, consumers) of mussel farming in the Baltic Sea Region (Denmark, Estonia, Finland, Germany, Latvia, Sweden). Experts were selected by their working experience and were invited to answer questions on the main factors affecting the development of mussel farming. For many analysed elements there were used evaluation scale 1 – 10, where 1 – not affect; 10 – affect in great extent. Experts could mention if they had no opinion on respective analysed aspect – there were two to three percent of responses and they were not included in this analysis.

Table following on the next page

Table 1: Main statistical indicators of evaluation by experts of factors affecting development of mussel farming in Baltic Sea Region

	Labour force /Human resource	Financing (subsidies, loans)	Formal, also informal education	Climate change	Marketing events	Taxes	End-use market	Government support	Environmental pollution
Mean	5,29	8,00	6,31	6,19	6,83	6,25	7,96	8,13	6,58
Std. Error of Mean	0,364	0,312	0,348	0,352	0,294	0,353	0,324	0,266	0,343
Median	5	8	7	6	7	6	8	8	7
Mode	4	10	7	7	6	4, 6, 8, 10	10	10	7 and 8
Std. Deviation	2,622	2,249	2,509	2,536	2,121	2,543	2,334	1,920	2,476
Range	9	8	9	9	8	9	9	6	8
Minimum	1	2	1	1	2	1	1	4	2
Maximum	10	10	10	10	10	10	10	10	10

Source: Zaiga Ozoliņa conducted survey, evaluation scale 1 – 10, where 1- not affect; 10 – affect in great extent, n = 52

The results indicated that governmental support was the highest marked factor covered with arithmetic mean 8,13 and mode 10 (most often used evaluation) and median 8 (half of experts gave evaluation 8 or more and half of experts gave evaluation 8 or less). As well financing was highlighted as mussel farming developing factor, obtaining arithmetic mean 8, mode 10, and median 8, and end-use market was indicated as the important factor, therefore the arithmetic mean was 7,96, mode 10. Labour force as developing factor for mussel farming obtained the lowest assessment, the arithmetic mean 5,29, mode 4, median 5. Climate change was evaluated as the second lowest one, therefore arithmetic mean 6,19, mode 7, median 6. The highest difference in experts' viewpoint was in labour force / human resources as main developing factors for mussel farming by experts of the Baltic Sea Region.

Table 2: Distribution of expert evaluations on factor – labour force/ human resource affecting development of mussel farming– the Baltic Sea Region countries expert survey results in 2018

Evaluation	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	7,7	7,7	7,7
2	4	7,7	7,7	15,4
3	6	11,5	11,5	26,9
4	9	17,3	17,3	44,2
5	6	11,5	11,5	55,8
6	4	7,7	7,7	63,5
7	8	15,4	15,4	78,8
8	5	9,6	9,6	88,5
9	1	1,9	1,9	90,4
10	5	9,6	9,6	100,0
Total	52	100,0	100,0	

Source: Zaiga Ozoliņa conducted survey, evaluation scale 1 – 10, where 1 - not affect; 10 – affect in great extent, n = 52

The arithmetic mean of experts' evaluations on availability of labour force / human resources is among the lower evaluated aspects by experts and the evaluations of experts for this aspect is with higher dispersion (indicators of variability characterized by standard deviations) of the Baltic Sea Region countries experts' evaluations – it means that the views of experts differ in great extent. Experts' evaluations have mode 4 – made by 17% of respondents, the second largest evaluation obtained 7 – 15% of respondents, therefore median was 5. Correlation analysis of all mentioned aspects affecting development of mussel farming and age group of experts and gender of experts and country of expert had not statistically significant correlation with reasonable significance level – it means that there were no differences in evaluations within experts by expert's gender, age group and country. Average evaluations by the Baltic Sea Region countries experts of analysed aspects on factors affecting development of mussel farming did not show statistically significant differences in average evaluations by expert's age groups confirmed by analysis of variance (ANOVA) - results are included in table 3.

Table 3: Results of analysis of variance (ANOVA) on expert evaluations on factors affecting development of mussel farming – the Baltic Sea Region countries expert survey results in 2018 by expert's age groups

Analysed aspects		Sum of Squares	df	Mean Square	F	Sig.
Labour force /Human resource	Between Groups	27,983	4	6,996	1,043	0,396
	Within Groups	308,644	46	6,710		
	Total	336,627	50			
Financing (subsidies, loans)	Between Groups	4,292	4	1,073	0,195	0,940
	Within Groups	252,689	46	5,493		
	Total	256,980	50			
Formal, also informal education	Between Groups	2,844	4	0,711	0,103	0,981
	Within Groups	317,744	46	6,907		
	Total	320,588	50			
Climate change	Between Groups	17,728	4	4,432	0,657	0,625
	Within Groups	310,311	46	6,746		
	Total	328,039	50			
Marketing events	Between Groups	10,334	4	2,583	0,544	0,704
	Within Groups	218,411	46	4,748		
	Total	228,745	50			
Taxes	Between Groups	41,275	4	10,319	1,646	0,179
	Within Groups	288,411	46	6,270		
	Total	329,686	50			
End-use market	Between Groups	9,542	4	2,385	0,415	0,797
	Within Groups	264,144	46	5,742		
	Total	273,686	50			
Government support	Between Groups	7,056	4	1,764	0,460	0,765
	Within Groups	176,356	46	3,834		
	Total	183,412	50			
Environmental pollution	Between Groups	8,265	4	2,066	0,312	0,868
	Within Groups	304,244	46	6,614		
	Total	312,510	50			

Source: Zaiga Ozoliņa conducted survey, evaluation scale 1 – 10, where 1 - not affect; 10 – affect in great extent, n = 50

One-way analysis of variance (ANOVA) was performed to determine statistics differences. The results have showed difference regarding tax aspect as developing factor for mussel farming. To analyse tax aspect more detailed the Mean analysis was applied. For experts in age group 35-44 and 55-64 the tax as factor affecting development of mussel farming in the Baltic Sea Region is more important (mean 7,2) than for experts in age group of 25-34 and 45-54 (mean 5,4), for experts in age group of 65-74 (mean 7). Also there is different viewpoint regarding labour force as factor affecting development of mussel farming in the Baltic Sea Region, the experts in age group of 25-34 and 45-54 indicated as less affecting factor (mean 4,6) than for experts in age group of 35-44 (mean 5,9) and 55-64 (mean 5,4). Average assessment by the Baltic Sea Region (representing countries - Denmark, Estonia, Finland, Germany, Latvia and Sweden) experts of analysed aspects on factors affecting development of mussel farming were compared using analysis of variance (ANOVA) and main results were included in table 4.

Table 4: Results of analysis of variance (ANOVA) on expert evaluations on factors affecting development of mussel farming – the Baltic Sea Region countries expert survey results in 2018 by expert's country

Analysed aspects		Sum of Squares	df	Mean Square	F	Sig.
Labour force /Human resource	Between Groups	52,104	4	13,026	2,106	0,095
	Within Groups	284,524	46	6,185		
	Total	336,627	50			
Financing (subsidies, loans)	Between Groups	33,988	4	8,497	1,753	0,155
	Within Groups	222,993	46	4,848		
	Total	256,980	50			
Formal, also informal education	Between Groups	32,149	4	8,037	1,282	0,291
	Within Groups	288,439	46	6,270		
	Total	320,588	50			
Climate change	Between Groups	14,611	4	3,653	0,536	0,710
	Within Groups	313,429	46	6,814		
	Total	328,039	50			
Marketing events	Between Groups	14,614	4	3,654	0,785	0,541
	Within Groups	214,131	46	4,655		
	Total	228,745	50			
Taxes	Between Groups	19,247	4	4,812	0,713	0,587
	Within Groups	310,439	46	6,749		
	Total	329,686	50			
End-use market	Between Groups	10,645	4	2,661	0,465	0,761
	Within Groups	263,042	46	5,718		
	Total	273,686	50			
Government support	Between Groups	11,937	4	2,984	0,801	0,531
	Within Groups	171,475	46	3,728		
	Total	183,412	50			
Environmental pollution	Between Groups	17,910	4	4,478	0,699	0,597
	Within Groups	294,600	46	6,404		
	Total	312,510	50			

Source: Zaiga Ozoliņa conducted survey, evaluation scale 1 – 10, where 1- not affect; 10 – affect in great extent, n = 50

The results have showed statistically differences by expert' country in expert evaluations on labour force / human resource factor which affects development of mussel farming. In Germany (mean 3,75) and Finland (mean 3) the experts have admitted that this factor is not affecting development of mussel farming but in Sweden, Estonia and Latvia labour force / human resource factor is moderate. Scientific research in many fields investigate differences in evaluations by expert's gender even considering that expert is expert and gender characteristic attitudes have not influenced the evaluation results. To check experts' viewpoint on factors affecting development of mussel farming in the Baltic Sea Region countries t – test was carried out by expert gender statistical hypothesis testing on average evaluations of analysed aspects. H_0 was stated: average evaluations of experts by expert gender do not differ statistically significant and respectively alternative hypothesis: average evaluations of experts by expert gender differ statistically significant. Average evaluations of experts by gender do not differ statistically significant with reasonable significance level but for all analysed aspects affecting development of mussel farming evaluations averages by female experts were higher – see table 5.

Table 5: Main statistical indicators of evaluations on factors affecting development of mussel farming – the Baltic Sea Region countries expert survey results in 2018 by gender

Analysed aspect	Gender	N	Mean	Standard Deviation	Standard Error Mean
Labour force /Human resource	F	36	5,67	2,662	0,444
	M	15	4,13	2,134	0,551
Financing (subsidies, loans)	F	36	8,00	2,378	0,396
	M	15	7,93	2,052	0,530
Formal, also informal education	F	36	6,17	2,569	0,428
	M	15	6,60	2,501	0,646
Climate change	F	36	6,69	2,595	0,432
	M	15	5,00	2,104	0,543
Marketing events	F	36	6,94	2,151	0,358
	M	15	6,60	2,165	0,559
Taxes	F	36	6,67	2,552	0,425
	M	15	5,27	2,404	0,621
End-use market	F	36	7,97	2,311	0,385
	M	15	7,80	2,484	0,641
Government support	F	36	7,92	2,075	0,346
	M	15	8,80	1,320	0,341
Environmental pollution	F	36	6,69	2,364	0,394
	M	15	6,27	2,865	0,740

Source: Zaiga Ozoliņa conducted survey, evaluation scale 1 – 10, where 1- not affect; 10 – affect in great extent, n = 51

The analysis of obtained results did not show statistically significant differences in expert evaluations testing with t – test.

4. CONCLUSION

The evaluation results of experts' viewpoint regarding factors affecting development of mussel farming in the Baltic Sea Region highlighted that governmental support, financing (subsidies, loans) and end-use market are key factors to develop mussel farming in the Baltic Sea Region. The results have indicated different viewpoint between experts regarding labour force as mussel farming development affecting actor.

In Germany and Finland this aspect was noted as unimportant aspect, however in Sweden, Estonia and Latvia the experts have considered it as moderately affecting factor. In addition, there was different viewpoint between experts in several aging groups - experts in age group of 35-44 or 55-64, and experts in age group of 25-34 and 45-54 - stated aspects regarding taxes and labour force as developing factor for mussel farming. This aspect should be analysed in further research. Average evaluations of experts by gender do not differ statistically significant with reasonable significance level.

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KNOWLEDGE-BASED ECONOMIC ACTIVITY AND SOCIO-ECONOMIC DEVELOPMENT

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ABSTRACT

The article examines conceptual approaches to providing this activity by defining the importance of knowledge-based activity in innovative development of the economy, evaluates the current situation in this field in Azerbaijan and in the world and defines directions of development based on world experience. The way to public wellfare depends on the good use and continuous development of scientific and technological means. In the article it is shown that advanced technology and human capital create a higher added value and assesses how it affects the development of both already formed and new emerging economic fields. Innovation-oriented, efficient and competitive development of the economy first of all necessitates the formation of higher education, science and economy unity. In the article, state expenditures allocated on education in providing knowledge-based economic activity is specially highlighted. Along with this it is also shown that new long-term challenges to the development of human capital in Azerbaijan necessitate the implementation of important measures at financing education. In the world the position of Azerbaijan is determined analyzing the dynamics of costs to R & D expenditures allocated from the General National Product. In the article suggestions for increasing the competitiveness of the "processing industry" and the knowledge economy in Azerbaijan is proposed, in order to achieve new quality of human capital, activities related to qualitative renewal all forms of education system in the country is highlighted.

Keywords: *innovation, knowledge, labor costs, socio-economic development*

1. INTRODUCTION

The world community has moved to a new stage of development by quality. Significant changes occur in the social paradigm, as the most important factor of productionthe person who carries out the function of knowledgeand hisdevelopmentis the main goal of socio-economic development. If capitalism is focused on earnings and capital accumulation, knowledge-based economics will direct innovations to social welfare. In this regard, to study of global trends in the knowledge – based economy and to consider its application opportunities in providing economic development is relevant.

2. THE MAIN CHARACTERISTICS OF KNOWLEDGE ECONOMY AND ITS SOCIO-ECONOMIC SIGNIFICANCE

To look over the knowledge economy in a narrow and broader sense makes it possible to better understand its essence. In a narrow sense, the knowledge economy is such a field of the national economy, where production, processing and management of knowledge takes place. This concept was presented in the works of J. Schumpeter, F. Hayek and F. Machlup. However, in this period the knowledge economy was not widely spread at that time as a term, because it was only understood in the functional-sectoral aspect (as part of the economy).But in the early 1960s a major social change took place in industrialized countries - the number of qualifiedworkers exceeded the number of industrial workers [2].In the 1990s, the attention of the world community to knowledge-based economy theorywas especially relevant.The World Bank, the European Commission, UNESCO and other organizations have begun publishing reports and lecturesin connection with this concept.

Many developed countries (US, Japan, Western European countries) have started to identify the information economy as a way for future socio-economic development.Thus, in a broader sense, knowledge-based economy began to be accepted asa type of economy rather than a field. The basis of the formation of knowledge economy includes in three areas of society: research, innovation, education-training. These factors form human capital, information and computer Technologies [11]. At the same time, knowledge is also regarded as a source that is the cause of critical situations and the dangerous changes in the social structure. At present, there is a need to re-evaluate the traditional role of science, the approximation of science and practice.From the 17th to the middle of the 20th century, we can observe the exceptional superiority of science, and the practice realizing new discoveries in social production (material and spiritual production) accompanied science.But with the invention of the laser (1956), this tendency began to change. Now science is focused on the technologicallydevelopment of practice, and attention of scientists focus on technology development. Instead of a scientific-technical revolution, a technological revolution exists. In other words, science has begun to serve the practice. This tendency proves that production activity using traditional factors of production and based on previous economic relations does not generate profit. The existing institutions need to be transformed according to the needs of the modern economy. Already the production of scientific knowledge is now developing as a modern, competitive entrepreneurial activity, and the number of enterprises operating on the basis of universities or interacting with them is increasing, and knowledge centers, technology transfer and research centers have begun to play an important role in the modern economy and added value of developed countries. Knowledge economy is a specific form of economic relations, when maximum efficiency is achieved through the integration of science, industry and education components. In modern conditions, knowledge, education, cognitive technologies and intellectual capital are the basis of ensuring the competitiveness of economic systems on any scale, from private economic entities to international integration institutions, from small enterprises to global corporations. Friedrich List, one of the first economists who systematically approaches the problems of the backward countries from point of view of development, emphasizes the importance of the knowledge economy as: “The present state of the people is the result of the discoveries, inventions, research and development of our ancestors. They created the intellectual capital of today’s human race. And today, each individual nation can be productive in proportion to the previous generations of their own, as well as withtheir own efforts, and only in these circumstances.” The vast majority of scientists [5, 6, 7, 9, 13, 16] envision the type of economy under the term “knowledge economy” (the highest stage of the development of post-industrial economy and innovative economy), which intellectual capital is substantially dominant, and they describe the production of knowledge as a source of growth and development of the economy at macro and micro level. In this connection, it is necessary to clarify the concept of “postindustrialism”. If we look over D. Bellin’s definition of postindustrialism,we are witnessing how knowledge-based economy plays a role in socio-economic development: “The post-industrial society is a society focused on the priorities in the economy priorities from good production to service production, conducting researches, organization of education systemand improving the quality of life based on it; In this society, technical specialists class turns into a major profession group and groups that create more value more value-based in society, and most importantly, the application of innovations … has gradually become dependent on the achievements of theoretical knowledge ...” [19]. The key factor for activation of innovative activity and creation and formation of the post-industrial economy is human capital. The feature of investments in human capital is that increasing the knowledge and experience of individuals helps increase in capital productivity. Human capital plays a leading role in the competitive advantage, and almost it is crucial that human resources analysis and evaluation are an essential

conditionfor successful activity of each organization. Ensuring competitive advantage is not possible without investing in human resources.

Table 1: Human development index around the world
(United Nations Development Programme: Human Development Index 2017.)

LEADER COUNTRIES ACCORDING HUMAN DEVELOPMENT INDEX		
PLACE	COUNTRY	POINT
1	Norway	0.953
2	Switzerland	0.944
3	Australia	0.939
4	Ireland	0.938
5	Germany	0. 935
6	Iceland	0. 933
7	Hon-Kong (China)	0. 933
8	Sweden	0. 933
9	Singapore	0.932
10	The Netherlands	0. 931
CIS COUNTRIES AND REGIONAL COUNTRIES ACCORDING HUMAN DEVELOPMENT INDEX		
PLACE	COUNTRY	POINT
49	Russia	0. 816
53	Belarus	0. 808
58	Kazakhstan	0.800
60	Iran	0.798
64	Turkey	0. 791
70	Georgia	0. 780
80	Azerbaijan	0. 757
83	Armenia	0.755
88	Ukraine	0. 751
105	Uzbekistan	0. 710
108	Turkmenistan	0. 706
122	Kyrgyzstan	0. 672
127	Tajikistan	0. 650

As can be seen in Table 3, European countries have the highest value of human development index, approximately average equal to 0.94. Then comes the US and Canada, and the average is 0.91. When it comes to CIS Slavic countries, Russia and Belarus are ahead here. In our country, this index is 0.757 and is behind Russia, Belarus and Kazakhstan in CIS space. Comparison of human potential development index with the production of Gross Domestic Product per capita is also especially important. The United States and Canada are the leading countries with the highest per capita GDP - per capita is 35,470 USD per year.Despite this, In Scandinavian countries, this is relatively low level -32,649. USD [21].Despite this, these countries are superior to the United States and Canada because of their human development index. Apparently, there is no direct dependence between the human development index and GDP per capita production, but high per capita GDP can lead to a high level of human development. Except USA and Canada, in the experience of other countries, we can more clearly observe this dependence. Evidence about direct relations between human development indexes and GDP per capitaemerges as a result of the analysis of other countries on the table. However, this discrepancy also comes out in the informations of Luxembourg and Austria which are the Western European countries. So that, Luxembourg (like the Vatican) is a special state with special production, social and political characteristics, and budget expenditures are

not spent for military needs [1, p.37]. At the same time, we see a similar view in Austria, which has drawn attention to its neutrality since the end of the Second World War. That is, these countries can save a great deal of money to spend on GDP, but their human development index is lower than other Western European countries. It is possible to conclude thatensuring human development is closely linked to how much space is allocated to this issue in the economic policy of the state. If we summarize all these, it can be concluded that the development of human capital leads to the deepening of the international division of labor. Countries with high human development index have been successful to form a more competitive economy in modern times by specializing in the production of brain – capacitive product. Practice shows that developed countries prefer to the scientific knowledge focused on the creation and application of new technologies serving the development of the economy, the organization of new production processes, the application of stimulating measures. Because innovation is the key decisive factor of economic development and, by its application, in the economy and at the same time in the science sector serious changes - improving technological processes, realizing the results of scientific researches, etc. occurs. The analysis of the World Bank's indicators determined in 192 countriesshows that in the share of total value the share of human, physical and natural capital is respectively64%, 16% and 20%. In Germany, Sweden and Japan, the share of human capital in national wealth is about 80% [p. 18,139]. In post-soviet countries with transition economy, more natural capital (capital obtained from raw material sales) prevails. For example, the adequate index of human capital in Russia is 14% and natural capital index is 70%.Contrary to all developed countries of the world and the West, human capital plays a major role in the formation of national wealth, and natural capital does not have a significant share. In this regard, the characteristic feature of post-industrial economyis high labor productivity, high quality of life, state support for innovation and education [p. 3 121-122].Intellectual development,the activation of creative abilities in the post-industrial society play an important role in the value system. Increasing the share of qualified employees, accordingly, will lead to the improvement of the innovation environment. In addition, the development of knowledge-intensive activities in the economy create condition to get more revenue with relatively little investment on innovative ideas and highly qualified workers. It should be noted that labor savings in production and other spheres are already dependent on labor costs in their own sphere of science. This dependency stipulates an objective requirement to the formation of public-necessary expenditures in the sphere of science. How long the stronger the conformity of law of labor savings functions, then a greater part of public labor and resources should be focused on the development of science.This means that the value of scientific knowledge is increasinglyrising. The theoretical basisof tendencies of increasement of scientific potential of product production, creation and development of agriculture fields namely consists of it. The same theoretical basis should be taken into consideration when developing a scientific-technical and innovation policyat different levels of management. As a result of scientific-technological progress, innovation and modernization over the past 30-40 years,education that is not enriched with practical knowledge and skills, bearing purely theoretical character is losing its fundamentalsignificance.In this regard, in the formation of education contentalong with academic knowledge, the importance of practical knowledge and skills and competenceis highlighted. Competence is a ability to apply obtained knowledge and skills effectively and rationally in practical activity. It ensures transforming the knowledge and skills gained by the person into the result of concrete activities. Competency-based education serves to socio-economic developmentmore effectively. The stage of modernization of the economy does not fulfill its mission if the potential forces of the population are not involved in creativity. This can only be achieved as a whole by focusing on the country's perceived reform requirements. The emergence of new innovative components of economic development and the formation of transitional mechanisms are characteristic in the condition of integrated and modernized

processes for the modern conditionin the economy. Increasing attention to the knowledge is the distinctive feature of innovative development, they show themselves more in the form of a competitive tool of competitiveness. In this connection, the problem of rational use of incentives and conditions, intellectual capital (accumulated human knowledge) is conformity to law and relevant for a substantial expansion of the demand for new technologies.According to international analytical studies, now knowledge is necessary for both developed and developing countries [14]. For a positive solution of the problem under these conditions, the innovation economy should be considered as an economy related to the formation, realization and development of the innovation potential of the real sector.In the explained aspect of the economy, innovation state can be imagined as a combination of innovation potential, innovation structure and innovation security. In its turn, the innovation potential – is such a system of restrictionsfor the establishment of a new economy, its structure also includes the followings [14]:

- cadre potential (here the number of staff dealing with researches, admission to the dissertation defense, number of students per 10000 people); - industrial potential (depreciation rate of fixed assets);
- investment potential (index of investments into fixed capital, specific weight of the harmful enterprises, loans given to legal entities by credit organizations, consumer value index, internal expenses spent to research and developments).

3. KNOWLEDGE – BASED ECONOMY DEVELOPMENT ISSUES IN AZERBAIJAN

The efficiency and potential of research institutions in the development of a knowledge-based economy are extremely important. Analysis of the main indicators of science in Azerbaijan shows that there is almost no increase in the number of organizations fulfilling research and developments. In 2017, the number of enterprises providing such serviceswas 137. There was also a decrease in the amount of value created by organizations engaged in research and developments, in 2012, it decreased from 128 million to 115 million manat.Taking into account that the number of staff engaged in research and development in such institutions is 1.3 times more than in 2000, and the number of doctors of sciences has increased by more than 2 times, this indicator can not be considered so positive. It has several reasons. In world practicemore attention is given tothe implementation of research and developments in the private sector, and this is considered more effective and rational. In our country, the number of entrepreneurship subjectsengaged in research and developments in the private sector has decreased to 9 in 2017 from 19 in 2001. In this direction, it make necessary the implementation of stimulation measures of entrepreneurship subjectsand taking steps related applying certain concessions for them.Only the number of educational institutions has increased from 25 to 39, which can be considered a positive trend.

Table 2: Main indicators of science [17]

	2000	2010	2015	2016	2017
Number of organizations fulfillingresearch and developments	137	145	141	135	137
Number of staff engaged in research and developments, numeral	15809	17924	23093	22527	20580
From them: doctors of sciences	678	843	1534	1476	1414
including women, numeral	83	133	251	288	292
Doctors of sciences	3343	3554	6532	6296	6243
including women, numeral	1170	1406	3063	2935	2970

Science expenditures also have a certain impact on the decreasing of the value created by enterprises engaged in research and developments.

Of course, the expenditures on science from the state budget have been increasing over the recent years. If in 2005 expendituresspent on science made 28.8 million manats, in 2017, science expenditures have increasedas a whole 4 times by the public sector, private sector, and higher education institutions.However, the ratio of expendituresspent on science to GDP is more than 15 years, 0.2% , which is lower than the world indicator. Also, in proportion to the state budget expenditures, science expenditures decrease by 2 times in comparison with 2000.

Table 3: Expenditures spent on the science from the state budget. [17]

	2000	**2005**	**2010**	**2015**	**2016**	**2017**
Expenditures spent on science from the state budget, million manats	9,3	28,8	92,8	113,2	110,2	109,8
in proportion to Gross Domestic Product,with percent	0,2	0,2	0,2	0,2	0,2	0,2
in proportion to state budget expenditures, with percent	1,2	1,3	0,8	0,6	0,6	0,6

When looking at the current domestic expenditures spent on research and developmentson the fields, more financial resources have been allocated for design and construction works in technical sciences.And on natural sciences, the funds allocated for fundamental researches have been more than other fields. The entrepreneurship sector has allocated more on research and developments in the field of agriculture, which indicates that this field is a priority in the private sector.

Table 4: Current domestic expenditures spent on research and developments on the fields of science, types of works and sectors in 2017.[17].

	Total	**natural sciences**	**technical sciences**	**medical sciences**	**agricultural sciences**	**social sciences**	**humanitarian sciences**
to fundamental researches	68841,9	27787,6	11 278,8	6 551,0	5 059,1	5 884,6	12280,8
to applied researches	24157,0	2 745,6	11 066,6	2 308,1	4 413,4	3 155,9	467,4
to project-constructor and technological works	26493,3	-	25 430,9	-	-	1 062,4	-
to the preparation of trial samples, sets, wares	8 389,4	-	8 389,4	-	-	-	-
to project works for construction	115,4	-	115,4	-	-	-	-

Taking into consideration the importance of technoparks in research and developments in the world practice, as well as the country's industrial potential, provision of financial resources is of particular importanceby identifying priority fields, before bythe stimulation of state support in this field, in subsequent stages by the stimulation of entrepreneurship subjects.

In order to create innovative ideas, the state should first of all create scientific-research centers, provide material-technical base, provide access to international information networks, and establish close relations with internal universitiesand research institutes in order to strengthen the centers' activities[p 4.95]. Most importantly, these centers should be open to all persons and free of use. In international practice, the state receives opinions of enterprises, physical entities with innovative ideas for a certain amount of payment, and offers entrepreneurs for free in return for the implementation of production. Of course, the material payment offered to the idea owners or organizations should bear motivating characterto future studies. Entrepreneurs should transfer these ideas into prototypes in the case of collaboration with the idea owners if needed, or investing to the applicationby starting the production of innovationsshould put on the market. In this case, it is possible to maintain the existence of knowledge-based, competitive product production in the economy, and the continued existence of innovative trends. In order to form an innovative economy in the country, it is necessary to encourage the expansion of contacts and cooperation between knowledge producers, knowledge transfer agents andknowledge users. Science fields play an important role in creating new knowledge as knowledge treasures, transforming knowledge into new technology and finding areas of application. In the modern era, collaboration between scientific institutions-industry-state has become the most important necessity for technology and knowledge development. The strategic objective of the modern development of the republic is to achieve the highest rate of economic growth through the creation of different competition and sustainable foreign economic factors.The necessity of transition from the industry to the post-industrial system and economy, as well as elimination of strong spatial differences in the differentiation of socio-economic development of the country, are the principal features of the solution of the tasks facing the country.Formation of adequate conditions for modernization of the country economy, liberalization of foreign economic relations, increasing the effect of production factors, stimulation of innovative development of economy, modern solution of contradictions resulting from structural changesis a necessary condition for this growth [8]. State support measures should be implemented and the relevant legislative base should be improved in order to stimulatie competitive productionby increasing innovation activity,establishing the necessary mechanisms for the implementation of innovation activities, to ensure the efficient use and development of innovation potential.

4. CONSLUSION

Thus, the knowledge economy has become a key determinant of the competitiveness, socio-economic development in a developed world. It is important to build knowledge-based economic relations, taking into account our country's ability to respond to global economic challenges and to actively integrating into the global economic system. Expansion of innovation activities should be one of the main priorities in order to ensure long-term sustainable economic development, to formulate "knowledge economy", to accelerate creation of science potential technology, product (works, services). The relations between science and production should be strengthened in order to create a dynamic economy in the country, and necessary mechanisms should be created for the implementation of applied scientific research according tomarket requirements. Information and communication technologies have a decisive role in the more effective development of science in the innovative course. In our opinion, the main objectives of the state policy in direction should include:

- creating economic and legal conditions for innovation activities;
- increasing the efficiency of production and competitiveness of products produced by domestic producers by creating and expanding innovations;
- development of entrepreneurship in the innovation sphere;
- finding ways to use the state resources efficiently related innovation activity development.

These features determine the most important character of economic growth. Firstly, it should be long-term and sustainable, secondly, should be differ with high quality, the third should be equally proportional on the entire territory, fourthly, should be competitive, and fifth should be oriented towards improving the level of life of the entire population. To achieve this goal, the implementation of the following objectives should be envisaged:

- investigating the current state of the industry as well as its scientific potential;
- to show the main directions and necessity of formation of the national innovation system;
- identifying priorities and factors for sustainable economic development of the industry.

The current scientific and economic potential of Azerbaijan allows that the each task to be successfully implemented in the direction of the knowledge economy has an active position in the creation of added value in the country.

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AN ANALYSIS OF THE SELECTED FACTORS OF THE INFORMATION SOCIETY IN THE UNITED STATES

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ABSTRACT

The emergence of the Internet and the ongoing development of technologies exert a powerful impact on the world, national economies, society, culture, as well as human relations and everyday life. The widening of the access to the Internet and modern technologies is referred to as informatization (computerization) and a direct effect of this process is the emergence of the information society. The paper presents an analysis of a particular set of diagnostic features. The variables, whose relevance and statistical accuracy were first verified, formed a basis for the classification of the the US states in terms of the computer and Internet use by physical persons aged 16-74. The data comes from the statistical yearbooks published by the Central Statistical Office and from the Eurostat websites; it covers the years 2012 and 2002. The aim of the analysis is to investigate the level of Internet and computer use in the US states in the years 2012 and 2002 by means of the rank method, which belongs to the group of taxonomic methods.

Keywords: *Econometric Methods, Information Society, Taxonomic analysis*

1. INTRODUCTION

Nowadays, the way we live is closely linked to modern technologies and Internet access. Rapid development of mobile technologies as well as increasingly easier access to the Internet change our rules and patterns of behaviour. Our primary goal is to gather information, and next, to process and use it for various purposes (Globan-Klas, Sienkiewicz, 1999, p. 40-117). Information can be instantly accessed, processed and transferred at any time as there is easier access to the Internet, which, due to a growing number of mobile devices with an Internet access option, no longer depends on our location (Kempty, 1998). Multiple public places, e.g. coffee shops, schools, stores, etc., offer free wireless connection to the Internet. The Internet provides us with an increasing variety of services and facilities. The number of Internet users is growing and their age range is widening (Bliźniuk, Nowak, 2005, p. 15-40), (Giddens, 2006). The Internet has become part and parcel of our work, entertainment and everyday life. We can contact one another via emails, set up forums and discussion groups. It can be observed that the Internet has infiltrated all spheres of life, and we have become heavily dependent on it. Thus, we can state that "the Internet is a global system of computer interconnections which enables people to communicate as well as find visual, audio and text information on web pages without the need for movement in real time, at no cost, with no space constraints, and outside state governments' control" (Giddens, 2006, p.723). In addition, the changes taking place in recent years have led to the creation of the information society, and they will further affect and modify both the society and culture. As the information society, we have become extremely reliant on modern technology and the Internet, which impact on a great number of social processes. To sum up, it can be concluded that technological advancement has far-reaching influence on society, culture, economy, etc., resulting in positive transformations on the one hand, and disruptive, sometimes even dangerous for the society, behaviour on the other. The aim of the analysis is to investigate the level of Internet and computer use in the US states in the years 2012 and 2002 by means of the rank method, which belongs to the group of taxonomic methods.

2. RANK METHOD

Linear ordering allows establishing the hierarchy of investigated objects. In order for linear ordering to be conducted, the variables describing the objects have to be measured on the ordinal scale at least. Otherwise, the variables have to be normalized to make them comparable to each other (Grabiński, Wydymus, Zeliaś, 1989, p.70-80), (Panek, 2009, p. 67). The linear ordering methods include, inter alia, procedures based on a synthetic variable, which can be generated by means of standard and non-standard methods. Non-standard methods require prior stimulation of input variables, while standard methods apply the concept of a reference standard of the required values of input variables. This study employs one of non-standard methods, a rank method. The first stage of the procedure involves variable stimulation. Next, taking into consideration all the variables, the sum of the ranks attached to each object is calculated. When two or more objects have an equal value of the variables, they have to be assigned the same rank. In such cases, the rank is calculated as an arithmetic mean of the respective ranks (Grabiński, Wydymus and Zeliaś, 1989). The value of the synthetic variable is determined according to the following formula:

$$s_i = \frac{1}{m}\sum_{j=1}^{m} z_{ij}, i = 1,2, \dots, n \quad (1)$$

where z_{ij} have to be normalized based on the formula:

$$z_{ij} = \frac{x_{ij}-\overline{x_j}}{s(x_j)}, \text{ where } i=1,\dots,n \text{ and } j=1,\dots,m. \quad (2)$$

(for classical standardization we take the value of the arithmetic mean of the variable 0, and for standard deviation the value is 1). (Panek, 2009, p.38)

3. THE APPLICATION OF THE RANK METHOD FOR ORDERING OF THE US STATES IN TERMS OF INTERNET USE IN THE SELECTED YEARS

The first stage of the study focused on the United States in the year 2012, and next in the year 2002. The set of the diagnosic variables, which was established based on the descriptive and formal analysis of these variables, included (Janiga-Ćmiel, 2016), (Janiga-Ćmiel, 2017A), (Janiga-Ćmiel, 2017B), (Janiga-Ćmiel, 2013):

X_1 - Number of the Individual lives in household without Internet use,
X_2 - Number of the Individual accesses the Internet from some location,
X_3 - Number of the Individual accesses the Internet from home,
X_4 - Reasons for not having internet access at home.

The data comes from the statistical yearbooks published by the Central Statistical Office and from the Eurostat websites; it covers the years 2012, 2002 (Panek 2009, pp. 60).

The diagnostic variables: x_1, x_2, x_3, x_4 were stimulated using formula:

$$x_{ij}^{s} = a - bx_{ij}^{D}, \text{ where } a = 0, b = 1, \quad (3)$$

x_{ij}^{D}- value of the destimulants.

This was followed by standardization based on the values of the diagnostic variables (2). The calculation results are displayed in the table below.

		X_1	X_2	X_3	X_4
1	Alabama	-0.78182	-0.79751	-0.79561	0.798338
2	Alaska	0.25863	0.27864	0.28954	1.68875
3	Arizona	0.00836	0.00676	0.03553	-1.34091
4	Arkansas	0.48794	0.50317	0.50174	0.92349
5	California	2.728398	2.622103	2.642532	0.26259
6	Colorado	0.08399	0.08103	0.06876	-1.094006
7	Connecticut	0.33419	0.34102	0.32389	-0.972261
8	Delaware	0.75846	0,77889	0.77345	0.17563
9	District of Columbia	0,79938	0,81337	0.81417	0.07127
10	Florida	-1.997542	-2.028232	-2.066439	0.293963
11	Georgia	-0.538295	-0.58999	-0.5764	0.050472
12	Hawaii	-0.67914	-0.70979	-0.70158	0.259179
13	Idaho	0,63551	0,6544	0,64684	1,128791
14	Illinois	1,051342	1,093423	1,115278	0,624416
15	Indiana	-0,044312	-0,088479	-0,064888	0,15824
16	Iowa	0,43684	0,44482	0,43913	0,172217
17	Kansas	0,46793	0,4648	0,47141	0,259179
18	Kentucky	0,30061	0,29337	0,30433	0,83653
19	Louisiana	0,32627	0,31321	0,33816	-2,00181
20	Maine	0,68291	0,69798	0,69262	0,920084
21	Maryland	0,01137	0,038738	0,041179	0,902692
22	Massachusetts	0,158603	0,139784	0,175913	-1,04183
23	Michigan	-0,577943	-0,635321	-0,62499	0,34614
24	Minnesota	0,02403	0,02082	0,003543	1,494028
25	Mississippi	0,54024	0,52424	0,55491	-2,43662
26	Missouri	-0,06161	-0,02037	0,05029	-0,57565
27	Montana	-0,74453	-0,75697	-0,75934	0,17563
28	Nebraska	0,63536	0,63694	0,64512	-0,4539
29	Nevada	0,48375	0,49889	0,48918	0,537454
30	New Hampshire	0,6759	0,69159	0,68213	1,650558
31	New Jersey	0,468642	0,468488	0,490959	0,624416
32	New Mexico	-0,60641	-0,6297	-0,63446	-1,53222
33	New York	2,0192	1,961159	2,001093	-0,15824
34	North Carolina	0,474482	0,485639	0,473916	-0,48869
35	North Dakota	0,78399	0,80175	0,79636	1,146183
36	Ohio	0,70334	0,736106	0,720348	-0,69739
37	Oklahoma	-0,36759	-0,3854	-0,39459	-1,23655
38	Oregon	-0,25936	-0,27222	-0,25667	1,337498
39	Pennsylvania	1,007949	1,036548	1,067048	0,311355
40	Rhode Island	0,72996	0,75362	0,74565	0,328748
41	South Carolina	0,2564	0,24051	0,26552	1,06263
42	South Dakota	0,77117	0,78887	0,78666	0,15824
43	Tennessee	-0,01482	-0,02739	-0,01703	-0,94089
44	Texas	2,522532	2,576237	2,465734	-1,53222
45	Utah	0,45357	0,46059	0,45372	1,04183
46	Virginia	0,250366	0,299888	0,287349	-0,14084
47	Vermont	0,7895	0,80895	0,80343	1,267929
48	Washington	0,173597	0,187816	0,205764	1,059222
49	West Virginia	0,64928	0,67615	0,67494	-1,96703
50	Wisconsin	-0,0356	0,007293	0,001491	0,589631
51	Wyoming	-0,80285	-0,82153	-0,81803	0,763554

Table 1: The value of variables after standardization (based on own research)

In the next stage of the study, a rank was established for each US state based on the values of the diagnostic variables. The value of the synthetic variable for each state was calculated by the formula (2). The stages of the procedure are presented in the table below.

	X_1	X_2	X_3	X_4	Average		
Alabama	11	11	10	16,5	12,125	***District of Columbia***	**1**
Alaska	46	46	46	31,5	42,375	***Alaska***	**2**
Arizona	19	19,5	17	2	14,375	***Delaware***	**3**
Arkansas	33	33	33	19	29,5	***Maryland***	**4**
California	15	15	15	30	18,75	***South Dakota***	**5**
Colorado	22	22	22	7	18,25	***West Virginia***	**6**
Connecticut	28	28	27	11	23,5	***Montana***	**7**
Delaware	45	45	45	33,5	42,125	***Utah***	**8**
District of Columbia	50	50	50	28	44,5	***New York***	**9**
Florida	4	3	3	23	8,25	***Rhode Island***	**10**
Georgia	9	9	9	27	13,5	***Hawaii***	**11**
Hawaii	41	42	42	24	37,25	***North Dakota***	**12**
Idaho	38	38	38	5,5	29,875	***Wyoming***	**13**
Illinois	17	18	20	45	25	***Washington***	**14**
Indiana	1	1	1	35	9,5	***Vermont***	**15**
Iowa	21	19,5	21	38	24,875	***Maine***	**16**
Kansas	32	32	32	25	30,25	***Louisiana***	**17**
Kentucky	26	26	26	40	29,5	***Oklahoma***	**18**
Louisiana	27	27	28	50	33	***Kansas***	**19**
Maine	42	41	41	12	34	***New Hampshire***	**20**
Maryland	51	51	51	15	42	***Idaho***	**21**
Massachusetts	31	31	31	9,5	25,625	***Kentucky***	**22**
Michigan	8	8	8	20	11	***Arkansas***	**23**
Minnesota	18	21	19	42	25	***Pennsylvania***	**24**
Mississippi	14	14	14	9,5	12,875	***South Carolina***	**25**
Missouri	6	6	6	22	10	***New Jersey***	**26**
Montana	44	44	44	33,5	41,375	***Massachusetts***	**27**
Nebraska	37	37	37	36	36,75	***Illinois***	**28**
Nevada	13	13	13	8	11,75	***Minnesota***	**29**
New Hampshire	40	40	40	1	30,25	***Iowa***	**30**
New Jersey	24,5	25	47,5	14	27,75	***Connecticut***	**31**
New Mexico	5	5	5	16,5	7,875	***Virginia***	**32**
New York	36	36	36	46,5	38,625	***California***	**33**
North Carolina	10	10	11	37	17	***Texas***	**34**
North Dakota	48	48	47,5	5,5	37,25	***Colorado***	**35**
Ohio	7	7	7	39	15	***Wisconsin***	**36**
Oklahoma	29	29	29	44	32,75	***North Carolina***	**37**
Oregon	2	2	2	46,5	13,125	***Nebraska***	**38**
Pennsylvania	30	30	30	26	29	***Ohio***	**39**
Rhode Island	43	43	43	21	37,5	***Arizona***	**40**
South Carolina	23	23	24	43	28,25	***Georgia***	**41**
South Dakota	47	47	25	48	41,75	***Oregon***	**42**
Tennessee	3	4	4	31,5	10,625	***Mississippi***	**43**
Texas	24,5	24	23	3	18,625	***Alabama***	**44**
Utah	35	35	35	51	39	***Nevada***	**45**
Vermont	49	49	12	29	34,75	***Michigan***	**46**
Virginia	12	12	49	4	19,25	***Tennessee***	**47**
Washington	34	34	34	41	35,75	***Missouri***	**48**
West Virginia	39	39	39	49	41,5	***Indiana***	**49**
Wisconsin	20	17	18	18	18,25	***Florida***	**50**
Wyoming	16	16	16	13	15,25	***New Mexico***	**51**

Table 2: The stages of ordering – 2012 (based on own research)

The same analysis was performed, using the set of variables, for the year 2002. The results are displayed in the tables.

California	1	South Carolina	26
New York	2	Louisiana	27
Texas	3	Alabama	28
Florida	4	Oklahoma	29
Pennsylvania	5	Iowa	30
Ohio	6	Kansas	31
Illinois	7	Nevada	32
Michigan	8	Mississippi	33
New Jersey	9	Arkansas	34
Virginia	10	Utah	35
Georgia	11	Nebraska	36
North Carolina	12	New Hampshire	37
Washington	13	West Virginia	38
Massachusetts	14	District of Columbia	39
Maryland	15	Maine	40
Alaska	16	Idaho	41
Minnesota	17	Rhode Island	42
.Missouri	18	Hawaii	43
Wisconsin	19	Montana	44
Tennessee	20	Delaware	45
Arizona	21	Wyoming	46
Colorado	22	South Dakota	47
Oregon	23	Vermont	48
Connecticut	24	North Dakota	49
Kentucky	25	Indiana	50
		New Mexico	51

Table 3: The stages of ordering – 2002 (based on own research)

4. CONSLUSION

The study discusses a taxonomic linear ordering method – the rank method and applies it to examine the level of Internet and computer use in the US states in the years 2012, 2002. The results of the analysis indicate that in the year 2012, the following states held the top three positions: District of Columbia, Alaska, Delaware. The results of the feature-based analyses show that variables X_1, X_2, X_3 took the highest value in District of Columbia, Alaska and Delaware, significantly impacting on this state's position in the hierarchy. In the same year, the lowest level of Internet and computer use was observed in New Mexico. In 2002, the first three places were occupied by California, New York, Texas. Variables X_2 and X_3 had the highest values. The lowest level of Internet and computer use was recorded in: New Mexico. The findings indicate that the level of Internet and computer use is determined by a variety of factors, including possibilities for social development, educational opportunities, proximity to big developed cities. Although residents of small towns and villages tend to have poorer access to the traditional Internet, the development of mobile devices offers them ever-increasing access to mobile Internet.

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COMPETITIVENESS PROBLEMS IN THE FIELD OF CONSTRUCTION MATERIALS INDUSTRY

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ABSTRACT

The main purpose of the research is to investigate the nature of construction materials and to make suggestions and recommendations to improve the mechanisms for the development and implementation of these marketing strategies based on the analysis of key factors that affect their competitiveness. The research was carried out on the basis of scientific abstraction and research methods such as systematic analysis, induction-deduction, analysis-synthesis, complex-systematic and situational approach, SWOT analysis. As a result of the research, the research restrictions: it requires a wider range of practical information. The practical significance of the research: The results of the research can play a positive role in enriching the scientific and practical knowledge in the field of efficient development of enterprises producing construction products in modern conditions, enhancing the main indicators of defining their competitiveness and strengthening their competitive positions, and effectively implementing marketing strategies. Scientific innovation and originality of the research: There were given suggestions and recommendations for the implementation of marketing strategies and providing competitiveness of construction materials product companies and was presented a generalized model of the identifying competitive positions of these companies in the market.

Keywords: *Competitiveness, competition strategy, balanced indicators, strategic chart, marketing strategy implementation mechanisms*

1. INTRODUCTION

General rules and schemes for solving problems of strategic management appear in the framework of strategic management – fulfilment of analysis, choosing strategies and their realization. However, every field, enterprise, even every manager specifically comprehends and realizes management. At present time the specialist approach to the issue to increase competitiveness of the enterprise in the field of construction materials production and the matter of choosing effective development strategies in our republic are not at the required level. This is one of the reasons that competitiveness of local construction enterprises is low. Generally, as several local researchers have noted, evaluation problem of marketing outcomes studied on the basis of factors that identify strategy of action in market and affect production – sale activity almost remains unsolved at economic entities acting in the Republic of Azerbaijan" [2, p.134]. Management strategy of competitiveness accepted at equal level for all subjects of economic activity is not existed. There is not pre-developed strategy aimed to increase competitiveness of the enterprises at any field. There should not be the prepared decisions for all enterprises, so that they set various goals and settle different matters, activate in diversified competitive environment, possess different internal resources and obtain efficiency at various levels in their activities and etc. Management mechanism on competitiveness of enterprises for production of construction materials are reviewed conforming to general principals in the study held within the scope of this article. To the effect that "Development of serious activity conception of the enterprise and marketing strategy in market, setting of the theoretically substantiated targets and purposes, proper foundation of marketing activity under the circumstance of market require methodological investigations of marketing activity" [4 p.145].

2. MANAGEMENT STAGES OF COMPETITIVENESS OF ENTERPRISES OF CONSTRUCTION MATERIALS PRODUCTION

Management of competitiveness of enterprises of construction materials production combines the following stages: analysis of domestic and foreign environments to identify the key factors constituting the competitiveness potential of the enterprise; evaluation of competitiveness of enterprise on schemes and indicators offered in the study; planning of level of competitiveness indicators, managing organization; evaluation and review of competitiveness in the framework of development strategy of competitiveness of enterprise. Managing mechanism of competitiveness can be described in figure 1 due to the offered principles. While conducting the analysis of external environment of enterprises in the field of production of construction materials, the necessary factors and main internal factors of competitiveness at areal and regional levels are detected; the specific factors for enterprises of construction materials in the territory of Baku city are defined: the highest increasing rate of construction between the areas of economy, raising the levels of incomes of business fields and people, the increasing rate of the construction at living, socio-cultural and industrial fields, the support of exported products, being open the internal market for external products, being relatively high of the expenses charged for the products in the enterprises of construction materials in Absheron district comparing with other districts, becoming the increasing rate of construction in Baku city. It is necessary that the aforesaid factors shall be considered in the process of competitiveness of construction materials. Evaluation of competitiveness of the enterprises covers working out the algorithm and calculating special indicators of competitiveness by the methods of differential, integral and the generalization, expertise evaluation, ranking. It is known that "the methodical approach based on obtainment of generalized indicators is applied to evaluate competitiveness of construction material" [6, p. 140]. Evaluation of competitiveness of the enterprise is comprised of the followings: evaluation of competitiveness of the produced products on the ground of consumer's requirements parameters (quality of product, quality of sale, level of price), assessment of activity profitability and innovations. Social content of business is used as an indirect indicator of evaluation of competitiveness of the enterprise. The distinct expression of the evaluation results of competitiveness of the enterprises of field of construction materials allows getting the chart that indicates competitive position of the enterprise. The forthcoming stage of competitiveness management is a planning: planning of levels of competitiveness indicators of product and enterprise on the basis of special indicators of competitiveness. The substantial requirement for planning under the circumstance of modern market environment is a dynamics of the planning process. In this respect, it is based on viewing external and internal changes far away and adapting it. To use evaluation indicators resulted while defining level of competitiveness of the enterprises and competitors is purposeful in preparation of competitiveness indicators and on the basis of methodology offered in the scope of current research.

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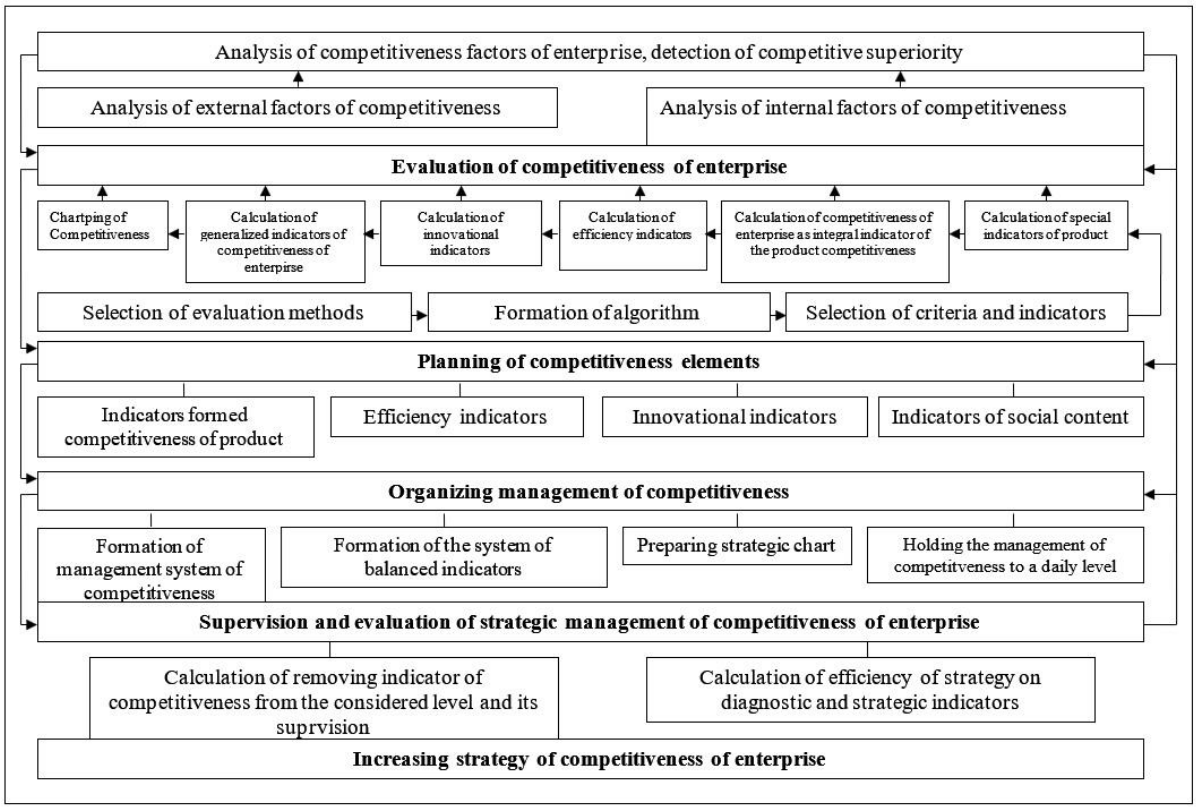


Figure 1: Scheme of management of competitiveness of the Enterprise

Durability indicators for competitiveness of the product and demonstrators on efficacy and innovation of the enterprise denote the strong and the blind sides of its activity. To the extent that "workout or development and realization of management strategy of innovations combines the exploration of competitiveness conditions of enterprises at local and regional markets, raising the strong and the blind sides as initial condition of adoption of strategic decisions" [7 p. 129]. "One of the main terms of formation of highly efficient competitiveness field depends on providing background for broad reproduction. This may be available when the balanced, intersectoral relations are formed" [3 p.151]. This allows for understanding how to mobilize the powers to compare special indicators of evaluation of competitiveness of the product, values of efficiency indicators of activity, to eliminate the blind sides and to intensify enterprise's position: to make corrections in policy of value whether to direct the powers towards improvement of the product or to increase the efficiency of working with consumers. It is possible to accord with such an opinion of some local researchers: "Different strategies are selected while implementing a policy of price under modern circumstance (defining the purposes)". Long-term prices function in construction. On this account, selection of the changing price strategy in construction is more purposeful [1 p. 147]. It is more urgent to mark out the most obligatory and easily-removable one among the revealed week points. The events aimed for intensifying the blind sides of enterprise shall be grounded on planning the level of elements of competitiveness and as well realizing general strategy for increasing competitiveness of enterprise. Organization of management is included into necessary elements of managing mechanism of competitiveness and the supervision is attached to implementation of strategic plan. Implementation of strategy on development of enterprise, increase of its competitiveness relies upon profitability of management system and making strategy at daily operating level and at the level of all participators taken place in administration. This also depends on being understood the goal of strategy by management personnel, managers' professionalism, and training for realization of their worked-out strategic plans.

According to the results of studies in this field, it may be noticed: "One of the most important duties of marketing under the circumstance of market economy and at competitive condition is a service rendered to consumer. Nowadays, one of the main reasons of being service level low in Azerbaijan is an insufficiency of qualified specialists. In this regard, increase of personnel's knowledge level will be attached special attention to enhance service level at local companies". [5, pp. 156-157].

3. REALIZATION OF MANAGEMENT STRATEGIES OF COMPETITIVENESS

Application of the balancing system of indicators acts as modern innovative method of management on realization of strategic purposes which this expresses means of strategic management that provides effective realization of clearly denoted plan of enterprise and ensures the supervision on realization of strategy basing on indicators that characterize to carry out strategic plans at current administrative level and grade for achieving the goals, profitability of management of processes and collaborators' work. In the beginning of 1990s the system of balanced indicators designated by R.Kaplan and D.Norton has been tested at several foreign companies, different fields of activity and organizations. The system unifies financial and non-financial indicators which allow for evaluation of effect of non-material assets (innovative products, information technologies, professions, employee's skills and motivation, mutual relation with consumers, providers, financial structures) on results of company's activity. Strategic management based on system of balanced indicators covers four components: financial component (growth strategy, rentability (cost effectiveness) growth, increasing profitability), component of client (made and promotional strategy of products, working with clients), component of internal business processes (optimizing strategies of business processes directed to establish competitive superiorities), training and development component (to determine priorities of advanced vocational training, to increase staff's motivation, to improve management organization, information technologies).

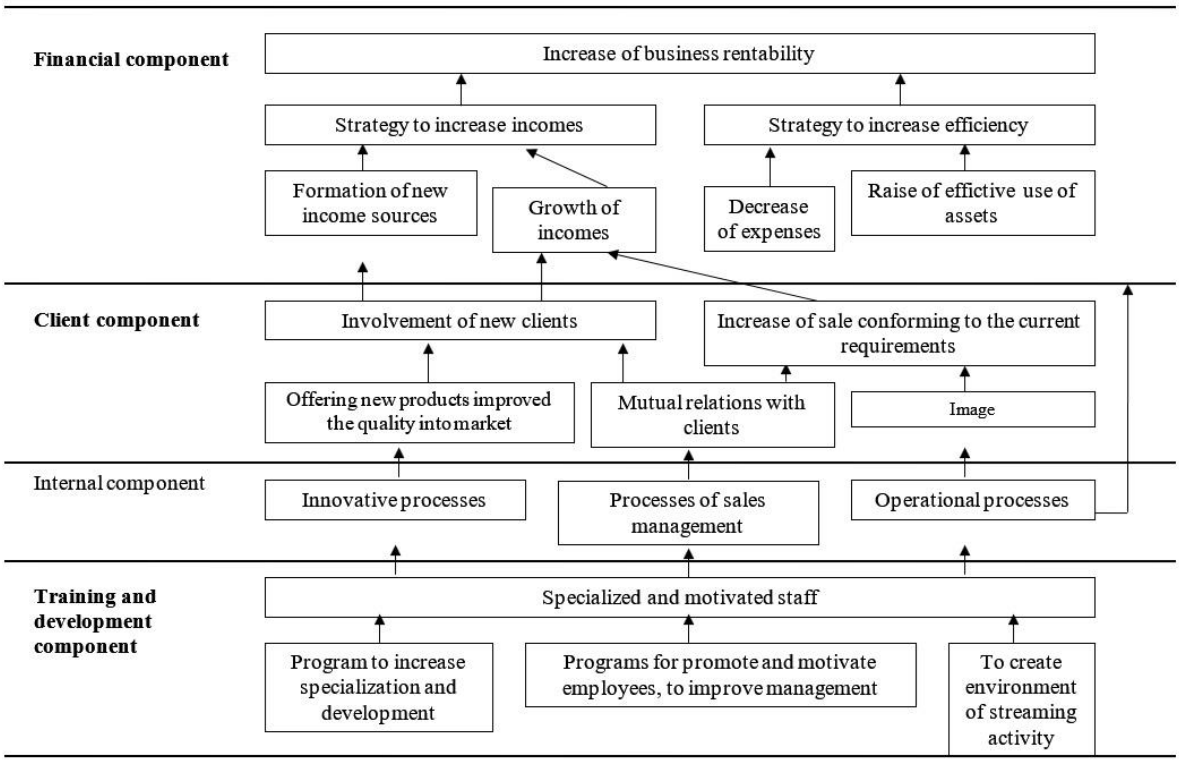


Figure 2: Model of strategic chart of the balanced indicators system

System of balanced indicators constitutes the base of a strategic chart) which is comprised of diagrams expressing strategy and management mechanism to achieve the set goals. Strategic chart describes cause-effect relationships of the arranged level and process of converting to real material (financial) results of non-material assets. Strategic chart contributes to understand directly the course of strategy and its realization. General model of strategic chart is issued in figure 2. While drafting strategic chart of construction materials industry, it should be focused attention on capacity of emptied residential areas having great effect on industrial strategic goals, provision of material base of high growth rate in construction, increase of investment in general economic growth and economy, repair of new constructions and buildings including perspective development of buildings and illustrations as well as construction site which their service life at all fields exceeds 45%. The chosen strategic development orientation of the enterprise depends on complying with modern competitive environment and as a result on providing the material base for all areas of construction and on protecting superiority of our republic in the domestic market of construction materials by joining the WTO. It is possible to totalize strategic goal of construction materials site as providing material base of construction in all directions and this shall be conformed to program relating with development of construction site or territory of this regions, sites and state and growth rate of construction. There is an increase of site incomes facing with financial component of strategy as a duty. Its realization is observed at increase of production capacity of construction materials at operating and new enterprises. Level of client component consists of indicators on customer valuableness which is expressed with followings: offering new materials due to changing construction technology and consumer's requirement; to suggest innovative construction materials that bring down cost price of construction works significantly and make available the dwelling houses at various income levels for humans. Internal (territorial) component of strategy reflects activation processes: To aid organization and application of innovations as well as consultation services, involvement of investments, increase of product quality, fulfilment of ecological programs, provision of aid programs of structural objects, corporation program with regional management structures in coordinating plan of placement and development of site enterprises considering regional opportunities. Training and development component shall have programs of staff training on site, increase of status of agreements on level of salary at site and realization of studying strategic management. The offered algorithm of strategic chart of construction materials site will be as in figure 3. Strategic chart model of the balanced indicators system of construction materials site at enterprise level has been issued in figure 4. The offered model demonstrates various strategic processes and resolutions. They are acceptable at different grades for various enterprises. Strategic chart makes imagine on how to change to material results of delivery system application with different transport means to consumers and for example to increase the gained incomes yielded from sales by involving new clients non-material assets, for instance, specialized high professional collaborators. Supervision to management of competitiveness and evaluation shall be regular work for the enterprise which desires to achieve the considered result, for example, supervision to implement the budget. Supervision system can summarize the gained level of competitiveness comparing with the expected level due to the adopted evaluation system. These evaluation indicators reflect parameters of consumer's requirement, efficiency and innovation on itself. Evaluation of management of enterprise competitiveness creates a comparison of the gained results with the expected results on the basis of realizing the system of balanced indicators.

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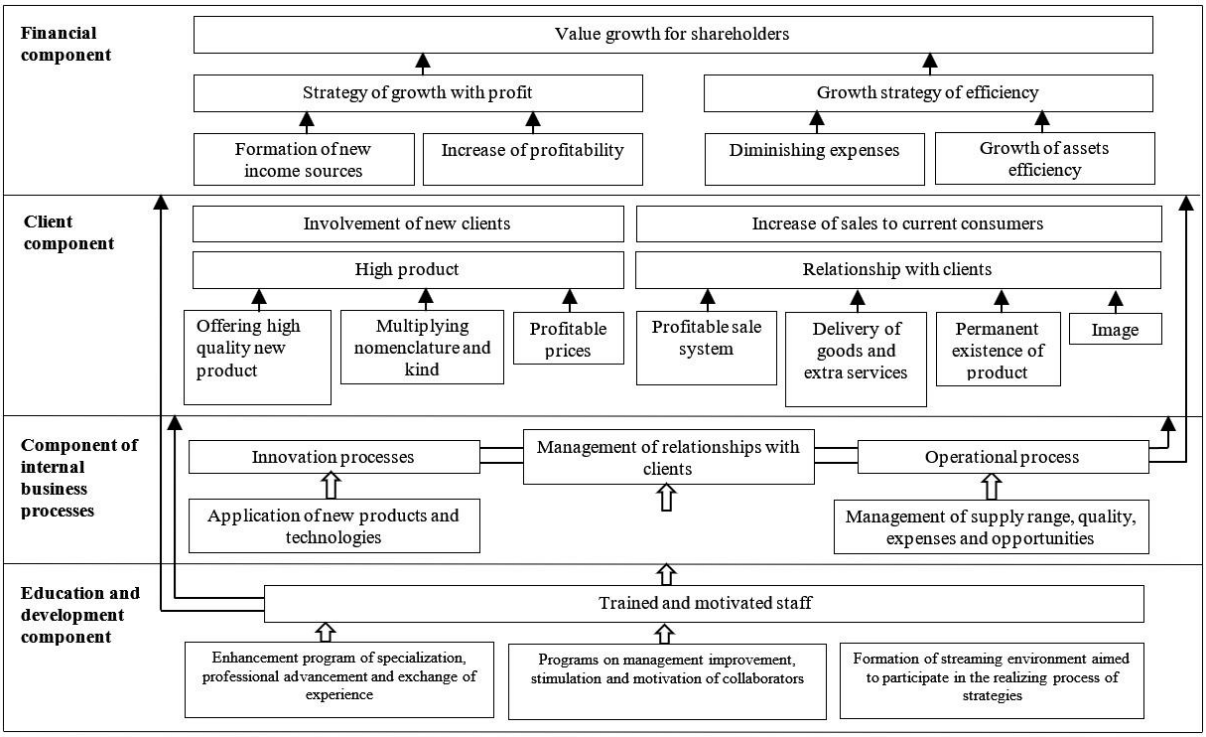


Figure 3: Strategic chart model of construction materials site

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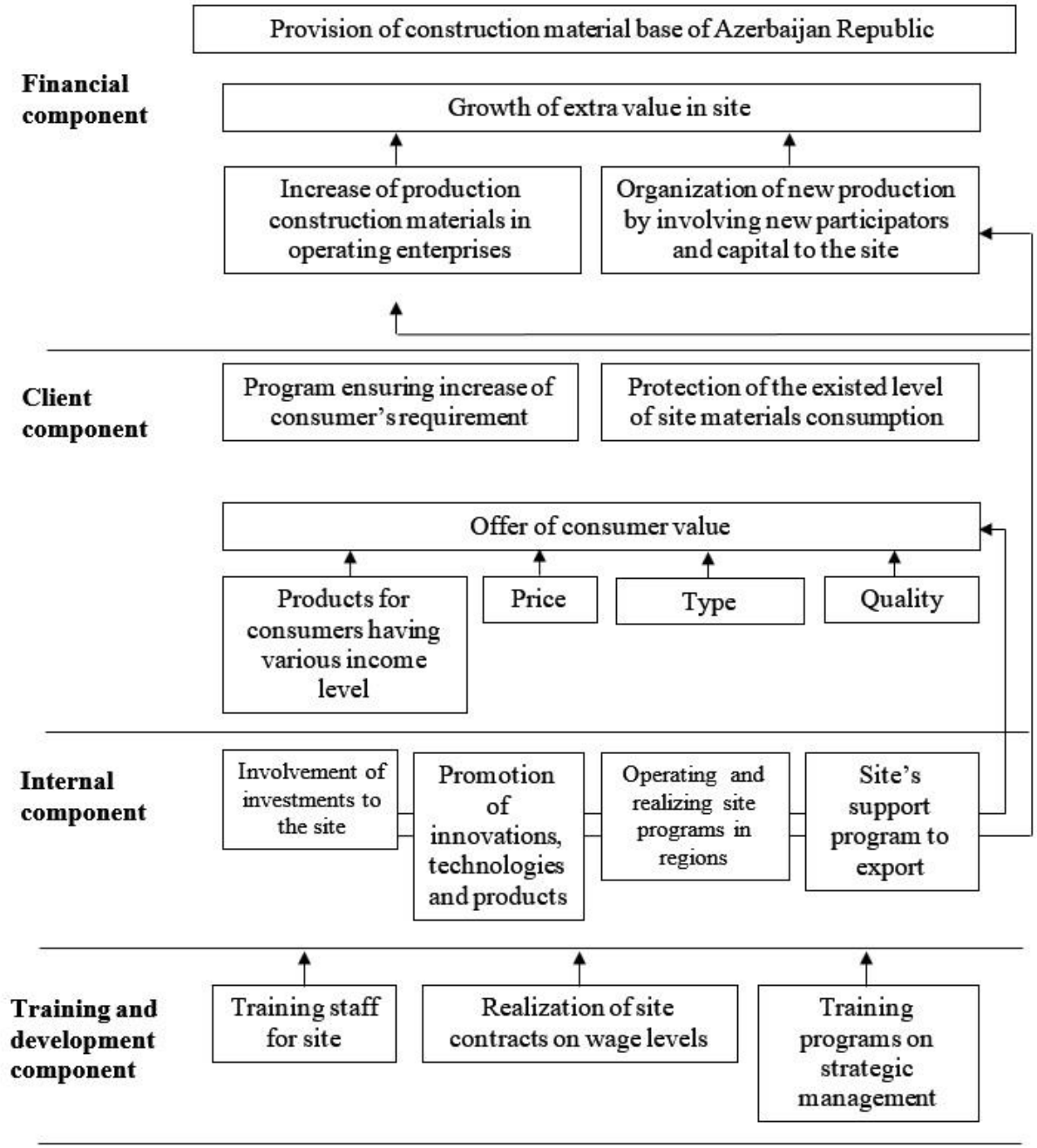


Figure 4: Strategic chart model for construction materials site

4. CONCLUSION

The following results can be noticed generalizing the analysis carried out in the article:

- Managing mechanism of competitiveness of construction materials enterprises shall be worked out and drafted on the basis of and due to enhancement strategy of competitiveness;
- It shall be taken into account of specific features of this field, characteristic factors revealed at internal and external circumstance, resources of manufacturing nomenclature referred to this field, the competitive intensity of different types of construction materials being at diversified degree and others while working out management mechanism of competitiveness;
- use of the balanced site indicators in management of competitiveness of the enterprise controls profitability of realizing the deemed plans of enterprise, implementation of

strategic goals at level of the current operative management and realization of increasing competitiveness strategy of enterprise;

- General model of strategic chart of balanced indicators system is given in figure 2. While drafting strategic chart of construction materials industry, it should be focused attention on capacity of emptied residential areas having great effect on industrial strategic goals, provision of material base of high growth rate in construction, increase of investment in general economic growth and economy, repair of new constructions and buildings including perspective development of buildings and illustrations as well as construction site which their service life at all fields exceeds 45%.
- The chosen strategic development orientation of the enterprise depends on complying with modern competitive environment and as a result on providing the material base for all areas of construction and on protecting superiority of our republic in the domestic market of construction materials by joining the WTO. It is possible to totalize strategic goal of construction materials site as providing material base of construction in all directions and this shall be conformed to program relating with development of construction site or territory of this regions, sites and state and growth rate of construction;
- The offered algorithm of strategic chart of construction materials site will be as in figure 3. Strategic chart model of the balanced indicators system of construction materials site at enterprise level has been issued in figure 4. The offered model demonstrates various strategic processes and resolutions. They are acceptable at different grades for various enterprises. Strategic chart makes imagine on how to change to material results of delivery system application with different transport means to consumers and for example to increase the gained incomes yielded from sales by involving new clients non-material assets, for instance, specialized high professional collaborator.

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THE EURASIAN ECONOMIC UNION: AT A CROSSROADS?

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ABSTRACT
Nowadays the integration process within the EAEU members is being influenced of contradictory factors. The number of political agreements is growing, while the process of economic integration is getting weaker since the creation of the organization. The aim of this study is to identify the degree of discrepancy between the declared opportunities for further cooperation and the real development of the countries. By analyzing macroeconomic data, collected from the various sources, we have revealed the signs of crisis within the framework of the integration organisation. Taking into account inconsistency with established convergence criteria, existing imbalances might be an irrevocable barrier for the further incorporation. Primarily, such factors as inadequate development of the financial markets and the instability of exchange rates along with the inequality in investment attractiveness and balance of payments structures may increase vulnerability of all the EAEU members to macroeconomic shocks in the near future. The combination of these factors leads to a situation where, though considering certain rates of economic growth, a significant part of the negative consequences affects, firstly, the incomes of the population, which invariably fall from the moment of the conclusion of the agreement. At the same time, the EAEU members face the rapid ageing of the population that calls for almost synchronous pension reforms in order to reduce the burden on the state budget. Since the gap between the countries tends to increase over time, the existing imbalances do not allow solving the whole complex of socio-economic contradictions at the supranational level in the short term.
Keywords: *EAEU, convergence criteria, economic integration*

1. INTRODUCTION

The integration process within the EAEU countries is mostly guided by the experience of the European Union as the only association that reached the highest level of institutional incorporation. Nevertheless, it has a number of distinctive features. The economic situation of developing countries linked by a common history and similar culture requires the EAEU members to create their own problem-solving mechanisms rather than to follow the established practices. Primarily, the obvious dominance of the Russian Federation is a driving force for establishing a new political regime of power distribution in the Eurasian region (Mostafa & Monowar, 2016, p. 165). At the same time, the official goals of the EAEU are intrinsically economic (Treaty on the Eurasian Economic Union, Art. 4). Thus, the analysis of the long-term social and economic consequences for the EAEU population is often complemented by the

contradictions of global political interests. Secondly, the differences in the economic potential often do not us to to get a fair view by analyzing absolute indicators. Therefore, in this paper special priority is given to the estimation of relative figures in favor to reveal the degree of their synchronization over the integration process within the EAEU. The study focuses on the analysis of the convergence criteria as a common denominator of the incorporation of national economies. The core priority is given to the examination of several financial indicators that define the distinctive features of the EAEU as a community of developing countries and determine the wealth of the population as the main target recipient of the integration benefits. From our prospective, a complex of these factors is necessary for the comprehensive estimation of possible perspectives.

2. BASIC INDICATORS OF THE EAEU SUSTAINABILITY

2.1. Economic principles of the integration process

A special role in terms of the evolution of integration associations belongs to the European Union, which is currently the sole representative of the highest integration form. Its history, fiiled with the experience of crises and internal contradictions, serves as an example for building such a structure in the Eurasian space. Thus, the Eurasian Economic Commission recognizes a number of provisions that provide a basis of international economic relations (Eurasian Economic Union: macroeconomic stability and economic growth, 2016, p. 24). Above all, any international agreements is driven by mutual economic interests that enable to maintain the stability of international relations when political and administrative measures do not create incentives for better integration. From our standpoint, the increase of population welfare is the major indicator that reflects the optimal composition of ideological and target-oriented components. Secondly, any economic phenomenon is a result of historic gradual development. In other words, the targets of international agreements can be fulfilled only if macroeconomic indicators meet convergence criteria. At the same time, the levelling of fundamental differences will become a solid basis for strengthening the integration processes and solving the problems of the free circulation of human capital. Thirdly, in today's world the role of supranational institutions is increasing. On the one hand, the transfer of functions to a single body allows to resolve the emerging contradictions and reduce the transaction costs of decision-making process. On the other hand, it requires a high degree of economic and political interaction. In order to narrow the gap between the EAEU economic growth rates and mitigate possible market fluctuations, the following criteria for economic convergence have been officially established (Treaty on the Eurasian Economic Union, Art. 63):

- annual government consolidated budget deficit should not exceed 3% of GDP
- general government debt should not increase 50% of GDP
- annual inflation rate (from December to December of the previous year, not exceeding more than 5 percentage of the inflation rate of another member state with the smallest price increase).

2.2. Convergence criteria

The analysis of the indicators reflects that the economic convergence still can not be achieved (Figure 1). In terms of the compliance with the budget balance requirements, over the past 6 years the Republic of Belarus is the only EAEU member state that has completely fullfilled the criteria. Even with a positive trend, by the end of 2017, a significant volatility of the indicator varies from 4% to 8%. The reason of this phenomenon lies in the synchronization of economic policies by the increase of the burden on the state budget simultaneously in almost all the reviewed countries in 2015-2016 since the trends are similar for all the participants, except for Kazakhstan. In this regard the parallel can be drawn with the dynamics of general government debt, on the item currently two countries do not meet the requirements.

In addition, there is a tendency of a gradually increasing debt, which may be caused by the negative consequences of the economic and political instability.

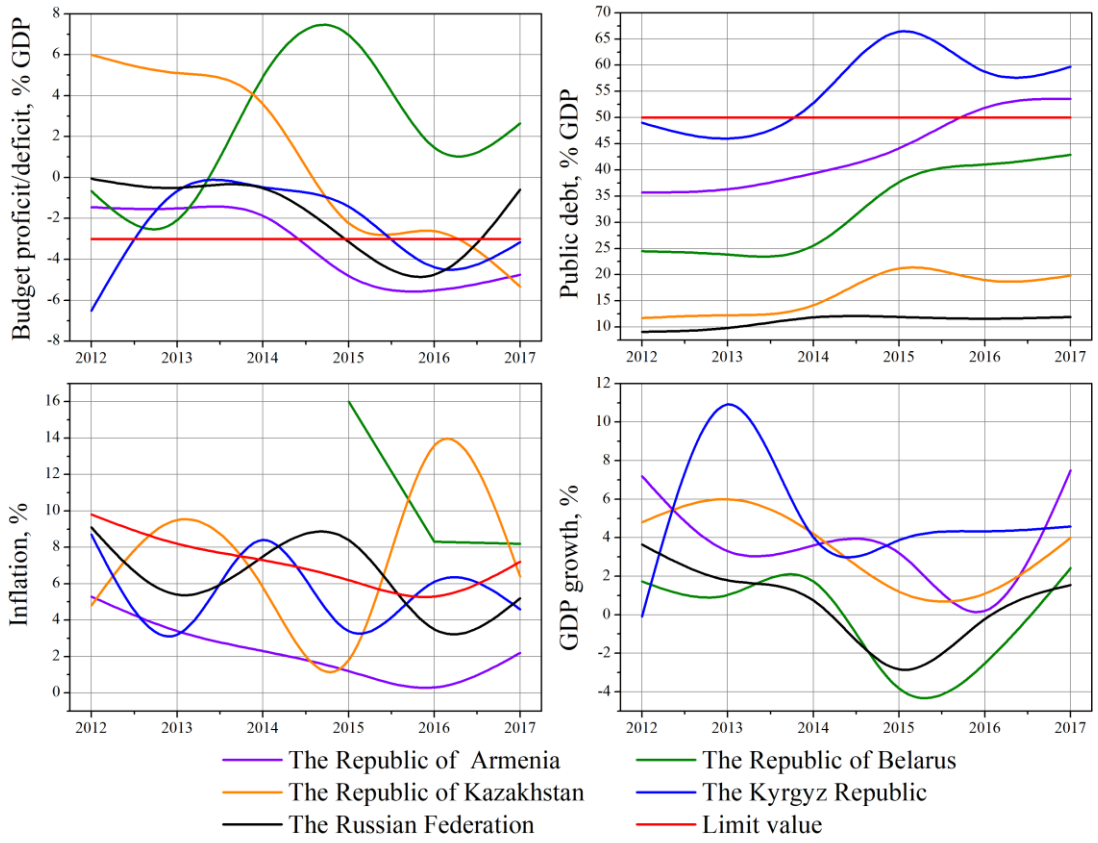


Figure 1: Convergence criteria and economic growth of the EAEU countries (based on data of Department of Statistics of the EAEU, National Statistics and Finance Authorities)

Despite the attempts to harmonize monetary policies, nowadays the level of inflation in member states stays beyond any acceptable indicators. It should be emphasized that the general dynamics of this indicator proves the impossibility to solve this problem at the current stage because of the chaotic behavior of this indicator within the EAEU. In contrast to the other countries, the inflation curve for the Republic of Belarus was drawn from 2015 owing to the denomination of the Belarusian rouble. This fact prevents us from drawing unambiguous conclusions relating the inflation rate in the Republic of Belarus .At the same time, regarding prospects for economic growth, in 2017 a general decline is replaced by an upward trend. In other words, these indicators show a certain synchronization of economic development, but it is impossible for the EAEU countries to meet the convergence criteria in the short term because of significant deviations.

3. SPECIFIC FEATURES OF THE INTEGRATION PROCESS

There is currently a number of structural problems that impedes successful economic cooperation in the assosiation framework. These factors inevitably affect quite new and relatively underdeveloped financial markets, which in the long run provoke financial difficulties, especially in terms of social projects financing.

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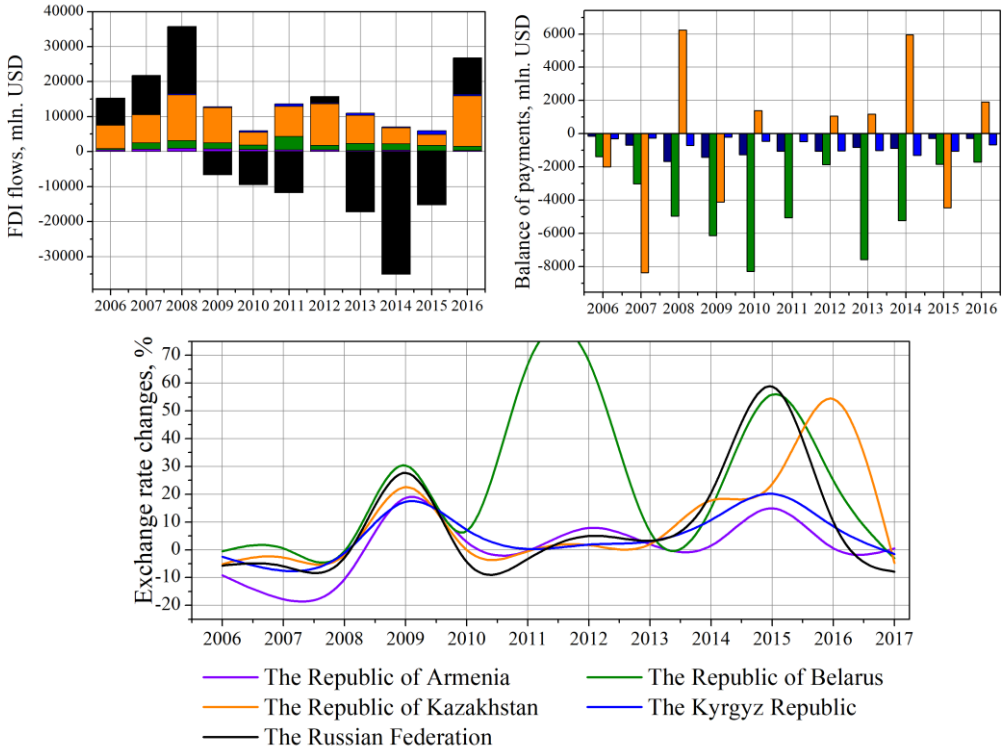


Figure 2: Some financial indicators of the EAEU (based on data of Bloomberg Terminal, World investment report 2017 and World Bank)

The first significant barrier for the substantial development within the EAEU is the outflow of capital from the region (Figure 2), which, studied in details, it is of a local character. Kazakhstan, unlike other countries, is aimed at a increase in FDI, which is a consequence of national policies aiming to increase its investment attractiveness. At the same time, Russia's investment attractiveness has a negative assessment: if until 2008 there was an inflow primarily due to "hot" capital and a general positive international situation, then at the moment the problem of the "capital flight" is one of the main ones. The share of other countries is extremely little. The outward orientation of the countries also has its own features. As Russia is one of the largest international exporters of raw materials (it was excluded from the graph in order to maintain its scale), the observed countries are characterized by a negative balance of payments. As for Kazakhstan, we can see a negative trade balance. This also creates problems within the framework of the Customs Union, where the Russian Federation plays a leading role in trade.
The instability of exchange rates is a threat to the economic integration. At the same time, there was a rather strong correlation of exchange rates against the US dollar, which has a number of features. First of all, this is the volatility of national currencies, which is largely the result of some peculiarities of developing economies. Secondly, it is a strong cyclical nature, which is expressed in a significant reaction to economic crises with a lag of about 1 year. Thirdly, it is worth noting that the currencies follow the change of the rouble as the currency of the most economically strong state. Thus, the financial integration is manifested to a large extent and is largely influenced by the size of the Russian market compared to other countries. Nevertheless, even this asymmetry gradually turns into a "point of power".

4. CHANGES IN THE WELL-BEING OF THE POPULATION

4.1. Dynamics of income and pension savings in the participating countries

In our opinion, the efficiency of integration processes is largely expressed in the well-being of the population: the growth of trade relations, stabilization and synchronization of economic

policy, the creation of common markets should theoretically lead to the growing income of the population in order to stimulate the aggregate demand and, as a result, the total domestic product. However, in a more detailed analysis we can note (Figure 3) that the real growth of income and pension savings in the participating countries is not growing. At the same time, it is also difficult to talk about its decline as the general trend of both indicators unalterably reaches a zero value. Taking into account the extraordinary synchronicity of changes, we can say that this situation was predictable when the EAEU was being created. However, it should be noted that the lack of real incomes of the population will have several consequences over the next several years. First, it affects the prospects for the GDP growth without the ability to increase the aggregate demand. Secondly, the continuation of this trend can lead to an increase in social tensions, since, psychologically, people perceive the absence of real growth in the welfare as personal losses.

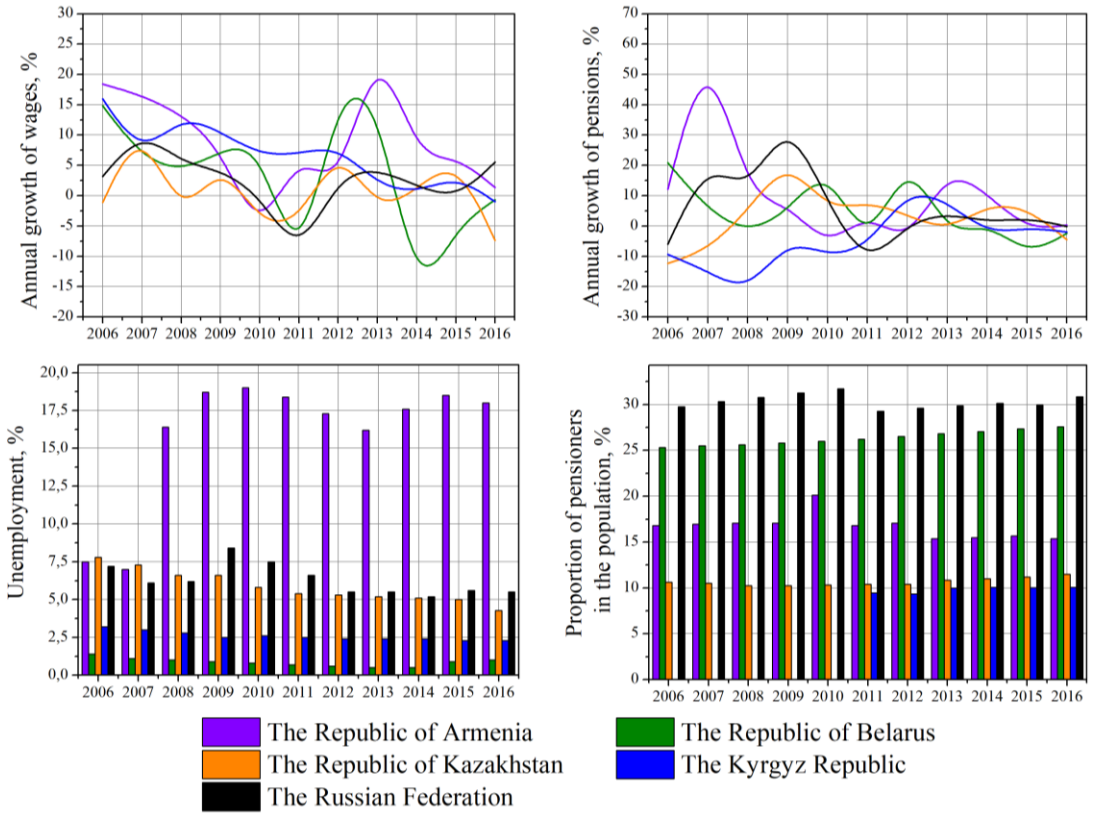


Figure 3: Socio-economic characteristics of the EAEU countries (based on data of National Statistics Authorities and International Financial Statistics. Yearbook. 2017)

However, only in the Russian Federation and the Republic of Kazakhstan the decline in the unemployment rate can be seen. In the Republic of Belarus and Kyrgyzstan there is a stable level of unemployment and a high level of unemployment is registered in Armenia, which is largely due to the strong migration of the people to other countries, especially to Russia. The process of gradual aging of the population becomes especially significant for the Republic of Belarus and the Russian Federation. Pensioners here are accounted for 30% of the population, and that imposes a heavy burden on the pension fund and leads to the need to reform the pension system. This inevitably affects the levels of the overall income of the population, which leads to an increase in social tension. In addition to that, a joint policy in this direction may become an incentive for optimizing the labor migration, and that may become a necessary precondition for the implementation of projects aimed at further integration in the future.

4.2. Measures to synchronize pension systems within the EAEU

The accumulated complex of contradictions actually led to the need to reform pension systems within the EAEU (Disposition of the Eurasian Economic Commission "On the draft Agreement on the provision of pensions to workers of the member states of the Eurasian Economic Union", 2018). The increase of the retirement age was a controversial decision, but still it allowed to synchronize the retirement age within 63 years, which should simplify the payment system if a person works in one of the participating countries in the future. The presence of similar elements in pension systems and the joint, although unsynchronized, movement towards the increase of the retirement age may partly justify the lack of growth in pension savings as a factor of significant costs. In addition to that, all pension systems have common elements, in particular, in determining the total length of service. The elements of the total length of service are seniority and service record for military men, during which it is necessary to pay the compulsory insurance premiums. Each of the EAEU countries has its own features concerning the main sections of the additional periods. We can identify two aggregated key groups, the directions of which are taken into account when calculating additional periods. First, the service or service experience, which includes the military service record on the territory of a country and other types of service in special state and law enforcement bodies. The number of activities included in this list can be reduced as well as detailed and can influence the seniority of family members. Secondly, the additional periods in all the countries of our study include childcare, care for people with disabilities and people who are over 80 years old who need constant care. The legislation of each of the member countries also contains minimum pension guarantees (for example, when determining the size of the basic pension), described directly or indirectly, as well as the possibilities of early retirement. These circumstances may indicate the similarity of pension systems concerning social guarantees.

5. CONCLUSION

The various discrepancies lead to the ambiguous assessments of the EAEU activities. If the economic situation is taken as the foundation and the institutional and political aspects are its pillar stones, the social component represents in many ways an incentive for further growth. Since the real economic effect of the integration process lies at the center of the interaction of political, economic and social factors, the absence of any one makes the association lose its usefulness. Thus, at the moment, a number of difficulties can be seen within the framework of the EAEU integration agreement. From an economic point of view, the volatility of indicators and quite unsuccessful attempts to harmonize macroeconomic policies in conjunction with capital outflows, the low level of development of financial markets and the instability of exchange rates do not allow to make full use of the integration unity. Significant differences between financial performance and real ability to comply with the agreements do not allow the effective implementation of the policy established at the supranational level. At the same time, it is also inappropriate to say that the EAEU has only formal existence. Despite some difficulties, as well as the crisis situation in the Russian Federation, both political and economic one, social, monetary and some economic indicators show, if not a convergence, but the emergence of strong interconnections. However, it is a matter of concern that the price of this integration agreement is the welfare of the population. If the negative trend of the real income growth rates continues, it may have much greater impact in the long run rather than potential benefits from short-term projects. It is possible that at this stage the stagnation processes in the economy may occur as the result of insufficient aggregate demand, which, under the underdevelopment of national financial mechanisms, remains outside the control of state policy.

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MODERN MARKET TRENDS

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ABSTRACT
In the XX century especially in the second half, the market conditions radically changed. Its essence can be understood if we identify new trends that are characteristic of the development of monopolies and competition. The first trend is to increase the monopolization of the market. The scientific and technological revolution brought about a transition to a much higher level of economic integration. The second trend is towards increased competition. A definite guide in this regard is the definition of rating in global competition. The third global trend is too much production of goods. Since the second half of the twentieth century, there has been a trend of oversupply of goods and industrial production. Increased productivity and urbanization of the industry dramatically changed the pricing policy of many companies.Cooperation and corporate communications have become an important factor in the development of the market of Azerbaijan.Thanks to the oil strategy, Azerbaijan became the first state to master the huge energy potential of the Caspian Sea and to form a qualitatively new economic model for the development of the region. One of the main directions of the oil strategy is the transportation of Azerbaijani oil to the world market. H. Aliyev managed to turn the agreement signed on September 20, 1994 in Baku, into the number one event of the whole world, in which both economic and political factors were united. Within a few years, it became clear to the public that this contract is not only economic in nature and that by its implementation we have achieved the use of the promising opportunities of Azerbaijan as a country throughout the world.
Keywords: *Azerbaijan, competition, new economic model, new trends, oil strategy*

1. INTRODUCTION

One of the most important elements of external analysis is the answer to the question about development trends characteristic of the market. Its value is determined by two factors. Firstly, he draws the attention of the strategist to the changes, and secondly, allows him to rank the significance of events occurring in the market, highlighting the most strategically important events. In principle, the discussion of market trends is a kind of summary of the research of buyers, competitors and the market. Common sense suggests that one of the tasks of the strategist is to find areas of growth. At the same time, many people forget the many risks associated with them. In particular, a number of hazards are associated with growing markets.

- The number of competitors interested in the market may exceed its potential "capacity".
- In the market there is a player offering the best product or having a cost advantage.
- The organization does not have the ability to adapt to changes in the KFU.
- Technology is changing.
- The market growth rate is less than expected.
- Price instability leads to an oversupply of production capacity or a decrease in trade (in an effort to attract buyers) of retail prices for "hot" goods.
- The company does not have the necessary resources to maintain high growth rates.

One of the most serious risks is that a growing market is capable of attracting a large number of players who are overstated with respect to market shares. The total sales in the market in this situation may not be sufficient for such a number of firms.Overcrowding was observed and observed in almost all active markets - from rail transportation to aviation services, radio

stations and equipment, televisions and personal computers. The most striking example of the overflow of the market (at least in retrospective terms) was the hordes of competitors rushing into the electronic business. At a certain point, at least 150 online brokerage firms, 1000 travel sites and 30 health and beauty sites competed for the attention of users. Electronic "business-to-business" (B2B) exchanges were created for buying and selling goods and services, exchanging information, providing services in the field of logistics, industrial information and forecasts, as well as many other services. During 2000, the number of B2B companies increased from 250 to more than 1,500, and then in 2003 decreased to less than 250. In the period of maximum growth of electronic business in such an industry as industrial supply, there were more than 140 such exchanges. It is difficult to accurately predict the future, but you can try to understand where the modern financial world is heading. Seventy-five years ago, the World Exhibition was held in New York, where the public saw a new and unknown technology called television. Then many people did not know what to do with television, and the New York Times claimed that television would not be interesting.

2. CHAPTER 2

Today, humanity has learned to better analyze trends and predict the future. Of particular interest are the forecasts for the development of the capital market, since this area has a high degree of unpredictability. Experts identify three current trends that will stimulate markets in the coming years and are good indicators for sensible investors.

2.1. First global trend

The first global trend is the demographic changes of the world community and the aging of the world economy. Humanity began to grow old quickly, people began to relax more and look after their health. This led to a reduction in the work period and a decrease in working hours per week. Many people began to try to retire earlier in order to calmly use their accumulated assets. Pension funds and long-term savings programs made it possible to accumulate enough funds for a comfortable old age. But the aging of the world's population leads to the transition of the financial world to a new level and drastically changes market priorities. Investors will look for greater profitability in bond funds or use a diversified strategy. But they will all have to use insurance companies, and, in addition, they will have to seek additional funding.

2.2. Second global trend

The second global trend is urbanization and re-urbanization. People began to move more, migrating from villages to cities. High rates of urbanization are observed in developing countries, but the United States and European countries are also rapidly merging suburbs and cities. Experts believe that re-urbanization is associated with the priorities of young people who do not want to live in the suburbs and are trying to change their lifestyle. Many of them prefer the urban lifestyle and this trend will only grow. Demographic changes have led people to rent more housing than to buy it. Currently, the rental housing market will be more important for investors than the mortgage market.

2.3. Third global trend

The third global trend is too much production of goods. Since the second half of the twentieth century, there has been a trend of oversupply of goods and industrial production. Increased productivity and urbanization of the industry dramatically changed the pricing policy of many companies. There is a significant deflationary trend in world markets, and new technologies, such as 3D printing, only exacerbate this problem. Some experts believe that a marked oversupply of commodities is controversial. But if we consider the entire cycle of production of goods, we can notice an increase in proposals for many types of products.

This is especially evident in the energy, metallurgical and food industries. High prices for many products led to greater savings in consumption and increased supply in the markets.

3. CHAPTER 3

At the beginning of the XXI century, each state evaluates its capabilities and considers the prospects for development in the global economy. For all countries, their successful integration into the global economic system is very important. This is promoted, first of all, by the consolidation of the foundations of a market economy and the increase in the competitiveness of goods and services both in the domestic and foreign markets. The formation of interstate relations shows that it is impracticable without active trade and economic relations on a global scale. The course towards the integration of Azerbaijan into the international community, taken after the restoration of independence, in addition to political rapprochement with foreign countries, also included integration into the international economic space, and one of the integral components of the intensification was WTO accession. At the present stage, no state can fully develop without involvement in multilateral initiatives, in which in the field of economy and trade CIS countries occupy a significant place in the foreign trade of Azerbaijan. However, approximately 65% of Azerbaijan's foreign trade falls to the EU. The share of foreign trade with the CIS countries and Georgia in the total trade turnover is only 15%. With the CIS countries signed agreements on foreign economic relations in the framework of the Commonwealth. To this day, 1,430 documents have been adopted within the CIS, 150 of which have been signed by the Republic of Azerbaijan. Among the CIS countries in force in more than 1000 interstate and intersectoral agreements, agreements and bilateral documents, 100 of which relate to foreign economic relations.It should be noted that in exports to the non-oil sector of the CIS republic occupy the first place.

4. CONCLUSION

Azerbaijan's new oil strategy has played an exceptional role in turning the country into a rapidly developing country in all vital areas, in strengthening its position in the international arena from the point of view of ensuring national security interests. This successful strategy, the foundations of which were laid by the signing of the Contract of the Century, which created real ground for social and economic growth, the implementation of transnational energy and communication projects, is one of the most glorious pages of the modern history of Azerbaijan. Over time, this step is estimated as the result of a wise policy of universal scale. H. Aliyev managed to turn the agreement signed on September 20, 1994 in Baku, into the number one event of the whole world, in which both economic and political factors were united. Within a few years, it became clear to the public that this contract is not only economic in nature and that by its implementation we have achieved the use of the promising opportunities of Azerbaijan as a country throughout the world. Commenting on this historic event, President of the Republic of Azerbaijan I. Aliyev stressed that "in the modern world, oil is not only a goal, it is also one of the means of solving global problems of both an economic and political nature". It is this tool that turned Azerbaijan into a country independent of anyone. I. Aliyev at the ceremony of signing the "Contract of the Century" stressed that "having signed this agreement, we once again demonstrated to the world the restoration of the sovereign rights of the Republic of Azerbaijan, and that our people are the masters of their national wealth"

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STUDY OF QUALITY INDICATORS OF THE PUMPKIN GROWN ON THE TERRITORY OF AZERBAIJAN

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ABSTRACT

The article provides data on the organoleptic and physico-chemical assessment of the quality of pumpkin grown in Azerbaijan. In 2018, we have collected two varieties of pumpkins on the territory of Azerbaijan: Palav-kadu 268 and Perekhvatka. When assessing the organoleptic characteristics of the pumpkin, appearance, maturity, size, and damage were determined. The fruits of these varieties were ripe, whole, healthy, unpolluted, disease-free, with the color and shape of the fruits characteristic of botanical varieties, with a stem, i.e. fully comply with the requirements of the standard GOST 7975 – 68. Organoleptic studies have shown that the pumpkin varieties studied: Palav-kadu 268 and Interception conform to the requirements and standards of GOST 7975-68, deviations from the standard were not observed and these varieties of pumpkin are reasonable to be sold to the public. From the physico-chemical parameters in the studied varieties of pumpkins, the content of water and carotene were determined. A study of the chemical composition of pumpkin varieties in 2018 showed that the pumpkin variety Palav-kadu 268 contains moisture 90%, carotene 1.6 mg; a grade Perekhvatka 88% moisture, 1.9 mg carotene.

Keywords: *expertise, organoleptic method, pumpkin, physic-chemical method, variety*

1. INTRODUCTION

One of the valuable and delicious vegetables is pumpkin, which unfortunately, today is not in wide demand. It is necessary to take into account that the pumpkin, possessing the ability to be well kept, allows to prolong its consumption and, to a certain extent, solves the problem of uninterrupted supply of the population with vegetables. In Azerbaijan, melon growing has primarily begun to develop in the Kura-Araks lowland (in the environs of the ancient city of Ekbatan in what is now Beylagan), on the coast of Kura in Ganja - the Kazakh zone, in Nakhichevan. A small amount of fiber (0.7%) and organic acids allows you to include pumpkin in the diet for diseases of the gastrointestinal tract, and a large amount of pectin has a particularly positive effect in inflammation of the colon. (Гуцалюк , 1997, с.178). Since the pumpkin has a low calorie content, it is advised to eat with obesity. In Azerbaijan, decoctions of pumpkin flowers are used to heal wounds. The yield of carotene per unit area from the pumpkin is significantly higher than that of the mountain ash, red carrots. Pumpkin is rich in a set of almost all vitamins, and since in most cases it is consumed fresh, the whole set is preserved, whereas other vegetables lose vitamins.(Шепелев , 2002. с. 223).

2. EVALUATION OF THE QUALITY OF PUMPKIN (PALAV-KADU 268 AND PEREKHVATKA) ORGANOLEPTIC METHOD

In 2018, we have collected two varieties of pumpkins on the territory of Azerbaijan: Palav-kadu 268 and Perekhvatka. When assessing the organoleptic characteristics of the pumpkin, appearance, maturity, size, and damage were determined.(Базарова, Боровикова,1986, с 295). The fruits of these varieties were ripe, whole, healthy, unpolluted, disease-free, with the color and shape of the fruits characteristic of botanical varieties, with a stem, i.e. fully comply with the requirements of the standard GOST 7975 – 68.(1993, с 6.). The fruits (10 copies of each variety) were loaded loose (in bulk), but with a soft litter of straw 10 cm thick and brought to the laboratory of the Az Research Institute of Food Industry for further research.

2.1. Appearance

In accordance with the requirements of standards GOST 7975 - 68 there should be one economic botanical variety in the batch of vegetables. The belonging of vegetables to the economic-botanical variety is established mainly in two ways - in form and color. Pumpkin should be uniform in color. The variety Palav-kadu 268 has elongated fruits, narrowed in the middle (interception), with a thickening towards the apex and to a lesser extent towards the stem. The ripe fruit is light brown, with a pattern in the form of broken stripes of a darker color than the background. Grade Perekhvatka - the tip of the fruit is slightly thickened, in the form of a cylinder, mature fruits become orange in color.

2.2. Magnitude

The size of most varieties of vegetables is determined by the maximum transverse diameter in cm: for the variety Palav-kadu 268 - 19.5 grades Perekhvatka-12.

2.3. Maturity

According to technical requirements all vegetables must be of a certain ripeness The maturity of vegetables is determined by the size, color, condition of the skin, the density of the pulp. Mature fruits include fruits with a color of pulp, characteristic of this botanical variety, seeds mature or close to ripening. To determine the maturity of the fruit, installed on the internal structure, cut no more than 10% of the fruits of the mass of the sample taken. Both varieties taken are mature. Varieties Palav-kadu 268 and Perekhvatka have orange flesh, dense-crunchy, tender, leathery seeds, easily defined, the seed cavity is small (only in the upper part of the fruit in Palav-kad 268). In the Intercept variety, the seeds are of medium size, and in the Palav-Kadu variety 268, they are smooth, round and pale-dirty.

2.4. The presence of disease.

All vegetables harvested and marketed must be healthy. Admissible microbiological diseases include the pumpkin crab. Fruits affected by these diseases within the established norms, are considered standard, in excess of the norm, non-standard. With other microbiological diseases, products are transferred to waste. For each type of vegetables are characterized by different types of damage that is provided in the standards. For example, for pumpkin - scuffed. Taken to study varieties of pumpkins are healthy, without damage. Organoleptic studies have shown that the pumpkin varieties studied: Palav-kadu 268 and Perekhvatka conform to the requirements and standards of GOST 7975-68, deviations from the standard were not observed and (these varieties of pumpkin) it is advisable to implement to the population.

3. EVALUATION OF THE QUALITY OF PUMPKIN (PALAV-KADU 268 AND INTERCEPTION PEREKHVATKA) BY PHYSICO-CHEMICAL METHOD

By this method, we determined the content in the pumpkin moisture, carotene.To determine the moisture in the pumpkin, we took 3 g of raw pumpkin of the variety Palav-kadu 268 and 3 g of the variety Perekhvatka. The analysis was carried out according to the method commonly used in the examination. The total moisture content in the pumpkin variety Palav-kadu 268 was 90%, for the grade Perekhvatka 88%.

3.1. Determination of carotene content

The content of carotene in 1 g of pumpkin is calculated by the formula:

$$X = \frac{0.01 * a * c * 100}{M * b} mg\%$$

where, a - the height of the column of the standard solution, sm: c - the volume of the test solution, ml; M is the mass of pumpkin puree taken for analysis g; b - the height of the column of the test solution, sm

We carried out analyzes to determine the content of carotene in the pumpkin of the variety Palav-kadu 268 and in the pumpkin of the variety Perekhvatka. In the first case, we took 100 g of pumpkin varieties Palav-kadu 268 and conducted an analysis using the above method. Thus, a 100 g sample of a variety of pumpkin Palav-kadu 268 in an amount of 100 g contains 1.6 mg of carotene. In the second case, an analyzed sample of pumpkin variety Perekhvatka in the amount of 100 g contains 1.9 mg of carotene.

4. CONSLUSION

Organoleptic studies have shown that the pumpkin varieties studied: Palav-kadu 268 and Perekhvatka conform to the requirements and standards of GOST 7975-68, deviations from the standard were not observed and these varieties of pumpkin are reasonable to be sold to the public. The study of the chemical composition of pumpkin varieties in 2017 showed that the pumpkin variety Palav-kadu 268 contains moisture 90%, carotene 1.6 mg; a grade Perekhvatka 88% moisture, 1.9 mg carotene. Organoleptic studies have shown that the pumpkin varieties studied: Palav-kadu 268 and Perekhvatka conform to the requirements and standards of GOST 7975-68, deviations from the standard were not observed and these varieties of pumpkin are reasonable to be sold to the public. The study of the chemical composition of pumpkin varieties in 2017 showed that the pumpkin variety Palav-kadu 268 contains moisture 90%, carotene 1.6 mg; a grade Perekhvatka 88% moisture, 1.9 mg carotene.

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THE IMPACT OF THE EXTERNAL DEBT TO THE ECONOMIC GROWTH

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ABSTRACT

External debt is one of the key indicators on the economic growth of a country. However, the underestimation of the risks and unefficient use of received funds resulted on the default of some countries. Lately, Greece, Spain and Portugal faced default due to challenges on paying back the external debt. The purpose of the study is to determine the structure of external debt in Azerbaijan and calculate it by interest rates to assess main economic indicators, such as, the volume of GDP, the income and expenses of the state budget, social inequality, employment and poverty indicators. As an oil rich country, there is a difference on the impact of external debt to the oil and non-oil sector. Thus, the growth of oil sector through external debt is conducted by the international contracts. The research was conducted by conducting statistical, competitive analysis and running econometrical models. According to the research results, external debt does not impact the economic growth all the time. For this, the goals of the external debt, its allocation and control have to respond to international standards. The oil prices of the world market, in addition, the ratio of national currency against the foreign currency, including U.S. dollar has an impact on the borrowed or paid external debt. The competitive economic environment in the country should be maintained and improved for the

growth of the national economy. The innovativeness of the research is that the structure of the external debt has been calculated by the interest rates and economic indicators were assesed by diversification.
Keywords: *External Debt, Economic Growth, Economic Indicators, International Standards, Diversification*

1. INTRODUCTION

External debt is one of the key essential on economic activity of the country. Meaning that, external debt is fellow (countries, The World Bank, IMF, UN and other financial institutions) of the World economy in regard of remedy in terms of efficient tool of the free funds. However, inefficient use of received funds, inaccurate risk assesments face challanges to return of received funds. These challanges might lead to default of the country. The problem on return of received funds negatively impacted on economic and social development and economic growth of the country. Significant decline in world oil prices in 2008 creates certain effects of external borrowing in emerging global financial crisis (Hasanli Yadulla and Ismayilova Simrah. 2017. p.12). It is no coincidence that international financial institutions consider it unnecessary that the ratio of foreign debt to GDP is undesirable, and this is reflected in the calculation of the various international ratings of the international economic institutions, including the Global Competitiveness Report of the World Economic Forum, as an important indicator in calculating the Global Competitiveness Rank-GCR (Klaus, Schwab, 2018, pp. 68-626). Thus, the study of the impact of external borrowing on the economic growth remains a problem.

2. ANALYSIS OF CURRENT STATUS OF AZERBAIJAN'S FOREIGN DEBTS

As it is known, valorization of the national currency rate (especially against the US dollar) is also reflected in the amount of foreign debt. As country rich in carbohydrate resources, the value of the national currency of Azerbaijan depends largely on the world market price of oil. The fall in oil prices in 2008 and starting in the second half of 2014 and the propensity for economic recession of the main trading partners did not sweep without affecting the economy of Azerbaijan. Since, as a result of the depreciation of the national currency against the US dollar by more than 2 times, the ratio of external debt to GDP has increased significantly over the years. The dynamics of a number of economic indicators for 1995-2017 years are given on the Table 1. As can be seen from Table 1, the ratio of the external state debt of Azerbaijan to GDP is expressed by a not-so-big figure. But as a result of the depreciation of the national currency in 2015, the ratio of external state debt to GDP increased from 8.6% in 2014 to 22.8% in 2017. As can be seen from the Graph, 1, the ratio of external state debt to GDP grows and falls with the rise and fall of the national currency price (with the exception of 1996-1998 years). In general, paying attention to the figures in Table 1, one can see that the external debt of the Azerbaijan economy is not at a critical level. Because the ratio of external state debt to GDP in Germany, France and other developed countries of European Union is more than 50%. Even for USA, Portugal, Ireland, Italy this figure is more than 100%. There are some factors affecting this situation.

Table following on the next page

Table 1: Dynamics of some economic indicators of Azerbaijan (Statistical Year Book of Azerbaijan, 2018, p.37-43; (https://www.stat.gov.az/source/finance/, http://www.economist.com/content/global_debt_clock)

Years	The amount of external state debt, million USD	GDP, million manat	GDP, million USD	exchange rate 1 US dollar = ... AZN	External state debt to GDP ratio,%
1995	294.0	2133.8	2397.5	0.89	12.3
1996	525.8	2732.6	3332.5	0.82	15.8
1997	549.7	3158.3	3962.7	0.80	13.9
1998	661.6	3440.6	4445.2	0.77	14.9
1999	964.0	3775.1	4339.2	0.87	22.2
2000	1162.5	4718.1	5184.7	0.91	22.4
2001	1264.2	5315.6	5595.4	0.95	22.6
2002	1356.2	6062.5	6186.2	0.98	21.9
2003	1575.2	7146.5	7218.7	0.99	21.8
2004	1587.7	8530.2	8680.2	0.98	18.3
2005	1650.5	12522.5	13611.4	0.92	12.1
2006	1972.0	18746.2	21547.4	0.87	9.2
2007	2441.9	28360.5	33762.5	0.84	7.2
2008	3001.1	40137.2	50171.5	0.80	6.0
2009	3421.8	35601.5	44269.5	0.80	7.7
2010	3857.3	42465.0	52843.5	0.80	7.3
2011	4816.7	52082.0	65926.6	0.79	7.3
2012	5708.4	54743.7	69683.9	0.79	8.2
2013	6058.9	58182.0	74173.9	0.78	8.2
2014	6478.2	59014.1	75234.7	0.78	8.6
2015	6894.3	54380.0	51790.5	1.05	13.3
2016	6913.3	60393.6	37746.0	1.60	18.3
2017	9398.3	70135.1	41255.9	1.70	22.8

The low budget deficit and the associated low debt in Azerbaijan is due to oil revenues. For example, if we pay attention to the law, we will see that 10% (from 2006, 22–26% sources of income are indicated) and more of budget revenues are transfers from the State Oil Fund.

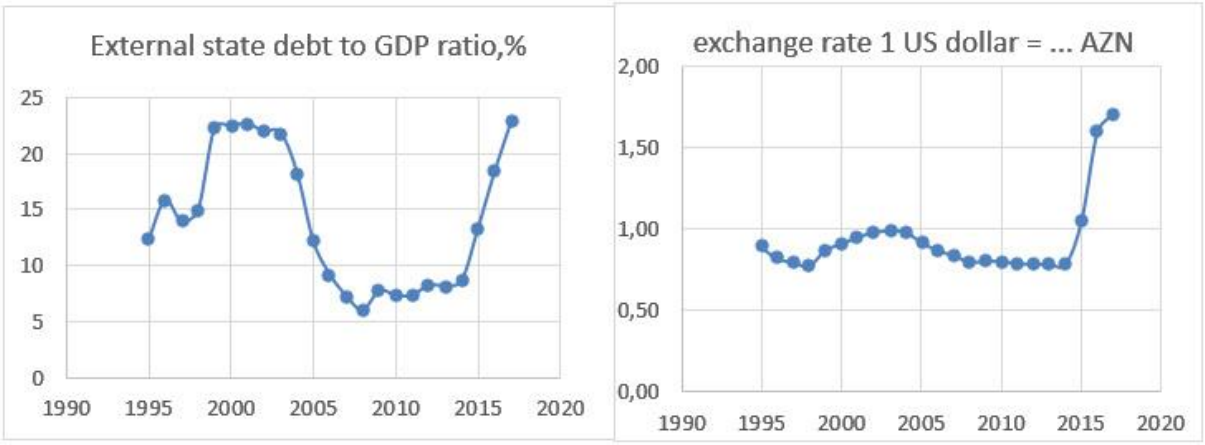


Figure 1: Dynamics of the ratio of Azerbaijan's foreign debt to GDP and national currency rate

Note that there is a certain effect of indicators characterizing the country's external debt on the competitiveness of the country's economy. Since in The Global Competitiveness Report in the estimation of Global Competitiveness Rank-GCR of the countries along with the factors of the "Macroeconomic environment", the indicators "Inflation" and "Total State Debt" are also used (Klaus, Schwab. 2018. p.83) (look at: Table 2).

Table 2: Azerbaijan's place in ranking of countries in Global Competitiveness Index by Macroeconomic stability (Klaus Schwab, World Economic Forum, The Global Competitiveness Report, 2018, p.84. http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitiveness Report2017%E2%80%932018.pdf)

Years	Pillar 4: Macroeconomic stability. 0-100 (best)		*Global Competitiveness Index in Azerbaiajn rank*	*Global Competitiveness Index in Azerbaiajn score*
	Inflation annual % change	Debt dynamics 0-100 (best)		
2008	130.0	10	*69*	*4.1*
2009	123.0	12	*51*	*4.3*
2010	43.0	9	*57*	*4.29*
2011	101.0	11	*55*	*4.3*
2012	106.0	12	*46*	*4.4*
2013	1.0	13	*39*	*4.5*
2014	1.0	12	*38*	*4.5*
2015	1.0	14	*40*	*4.5*
2016	81.0	41	*37*	*4.6*
2017	127.0	43	*35*	*4.7*
2018	128.0	111	*69*	*3.8*

As can be seen from Table 2, Azerbaijan's position by score and rank in Global Competitieveness Index has been declined. The main reason for this has been removing the indicators of "Government budget balance", "National saving rate" and "country's credit rating" from the list of "Macroeconomic stability" factors, along with declining its position by "Debt dynamics". Because Azerbaijan's position has not deteriorated much due to the "budget balance of the government", the "national savings norm" and the "credit rating of the country" indicator.

3. ECONOMETRIC EVALUATION OF EXTERNAL BORROWING ON GROSS DOMESTIC PRODUCT

In order to determine the impact of the foreign debt indicator of Azerbaijan and the national currency rate on the country's GDP the following regression equation is evaluated in the Eveiws Applied Software Package (Eviews, http://www.eviews.com/EViews10/ev10main.html):

GDP_USD = 57369.0245549 + 10.1428323026*ESD_USD - 928.381471299*ESDP_GDP - 49944.5816719*ER (1)

Here, GDP_USD - GDP volume of Azerbaijan (in millions of USD), ESD_USD - The amount of external state debt (million USD), ESDP_GDP - External state debt to GDP ratio (%) and ER - exchange rate 1 US dollar = ... AZN shows.

The main statistical characteristics of the model (1) are given in Table 3.

Table 3: Main statistical characteristics of model (1)

Dependent Variable: GDP_USD				
Method: Least Squares				
Sample (adjusted): 1995 2017				
Included observations: 23 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	57369.02	4542.041	12.63067	0.0000
ESD_USD	10.14283	0.662172	15.31751	0.0000
ESDP_GDP	-928.3815	281.6402	-3.296338	0.0038
ER	-49944.58	8262.543	-6.044698	0.0000
R-squared	0.967238	Mean dependent var		29711.29
Adjusted R-squared	0.962065	S.D. dependent var		26305.63
S.E. of regression	5123.527	Akaike info criterion		20.07784
Sum squared resid	4.99E+08	Schwarz criterion		20.27532
Log likelihood	-226.8952	Hannan-Quinn criter.		20.12751
F-statistic	186.9795	Durbin-Watson stat		1.776303
Prob(F-statistic)	0.000000			

The main statistical characteristics given in Table 3 are satisfactory (Marno Verbeek, p.29-87). Other characteristic tests of the model (1) also show that the model is adequate (Damodar N. Gujarati. 2003. pp. 212, 217, 258, 267). Thus, the Breusch-Pagan-Godfrey test of the residual equilibrium test showed that there is homosexuality of the variance of the residuals remaining from the basic conditions laid down. (Table 4).

Table 4: Heteroskedasticity Test of Remaining Model (1): Breusch-Pagan-Godfrey

F-statistic	0.777375	Prob. F(3,19)		0.5210
Obs*R-squared	2.514465	Prob. Chi-Square(3)		0.4727
Scaled explained SS	1.323079	Prob. Chi-Square(3)		0.7237
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Sample: 1995 2017				
Included observations: 23				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2783040.	24788603	-0.112271	0.9118
ESD_USD	1385.278	3613.865	0.383323	0.7057
ESDP_GDP	-556723.1	1537077.	-0.362196	0.7212
ER	29874066	45093586	0.662490	0.5156
R-squared	0.109325	Mean dependent var		21685219
Adjusted R-squared	-0.031308	S.D. dependent var		27534409
S.E. of regression	27962116	Akaike info criterion		37.28737
Sum squared resid	1.49E+16	Schwarz criterion		37.48485
Log likelihood	-424.8048	Hannan-Quinn criter.		37.33704
F-statistic	0.777375	Durbin-Watson stat		2.158928
Prob(F-statistic)	0.521037			

Table 5: Augmented Dickey-Fuller test of remnants of model (1)

Null Hypothesis: RESID09 has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-4.008228	0.0059
Test critical values:	1% level		-3.769597	
	5% level		-3.004861	
	10% level		-2.642242	

As Figure 2 shows, actual GDP figures and their model (1) prices are very close. This also indicates that the value of the determination coefficient shown in Table 3 is close to the unit. (R-squared = 0.967238).

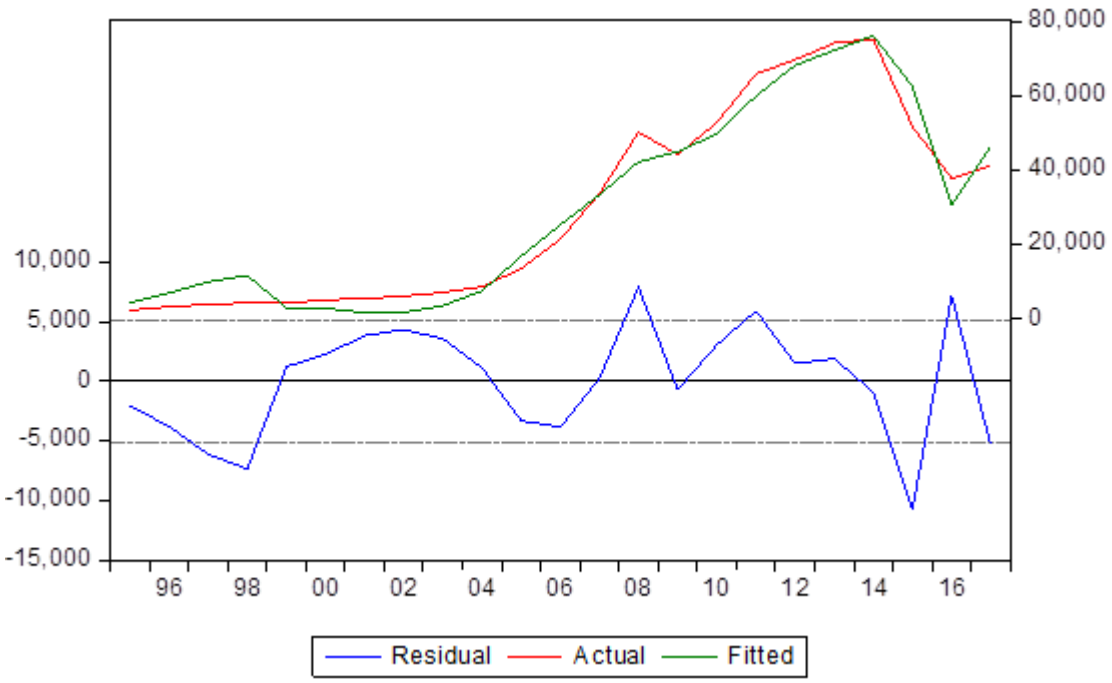


Figure 2: Prices of Azerbaijan (Actual) and Actual (1) model prices and their Residual Dynamics

The Model (1):

- The US $ 1 million increase in the amount of the external debt of ESD_USD increases the country's GDP by about $ 10 million;
- Increase in the ratio of ESDP_GDP, ie the ratio of Azerbaijan's foreign debt to GDP by 1%, causes the country's GDP to decline by 928 million;
- ER - exchange rate 1 US dollar = ... The decline in manat, ie, the decline of the Manat against the US dollar by 0.1 USD will reduce the GDP by about $ 5 billion.

4. CONSLUSION

The analysis carried out showed that the ratio of the external state debt of Azerbaijan to GDP is expressed by a not-so-big figure. But as a result of the depreciation of the national currency in 2015, the ratio of external state debt to GDP increased in recent years. The low budget deficit and the associated low debt in Azerbaijan is due to oil revenues. Due to the Budget Act budget beginning from 2006 transfers are made from the State Oil Fund. Also there is a certain effect of indicators characterizing the country's external debt on the competitiveness of the country's economy. The main reason for the fact that Azerbaijan's position by score and rank in Global Competitieveness Index has been declined has been removing the indicators of "Government budget balance", "National saving rate" and "country's credit rating" from the list of "Macroeconomic stability" factors, along with declining its position by "Debt dynamics". The results of the econometric modeling showed that the growth of The amount of external state debt by 1 million US dollars positively affected the growth of the volume of GDP. But the growth of the External state debt to GDP ratio (%) and depreciation of the national currency against the US dollar lowers GDP.

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ANALYSIS OF THE IMPACT OF THE HUMAN CAPITAL ON TOURISM DEVELOPMENT IN AZERBAIJAN

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ABSTRACT

Formation of a new model of economic development in Azerbaijan means transition from the raw material economy to the diversified economy, reduction of dependence on the oil sector and dynamic development of the service sector, including tourism. Tourism is one of the most promising and fast-growing sectors of the world economy plays an important role in providing human resources' employment, opening new jobs, thus solving social problems of the society. The goal of this article to investigate the impact of human capital on development of tourism industry. For achieving this goal, following issues are solved: statistical analysis of the current situation of tourism development in Azerbaijan is conducted; internal and external factors affecting the tourism sector are investigated; the role of human capital in the development of tourism is substantiated. The article deals with the preparation and use of tourism suggestions as a complex of knowledge and skills of individuals in human capital. The specificity of tourism is related to the fact that there is a constant mutual relationship between producers and consumers, while this demands to improve the quality of provided tourism services, to raise qualifications of the staff and to realize trainings for them. Because of exploring the lawfulness and factors affecting tourism, correlation-regression analysis is carried out, regression equations are formed and the most important factors characterizing the tourism development in Azerbaijan are determined in the article. The density of the relationship between human capital and tourism development is measured, as well as the forecast of tourism indicators is mentioned. The quality of tourism services depends on personal and professional qualities of the staff. Consequently, we can point out that, it is necessary to make sustainable investments in the development of human capital for achieving strategic goals of tourism institutions and preparing competitive tourism suggestions.

Keywords: *human capital, statistical analysis, service sector, tourism development*

1. INTRODUCTION

In our contemporary world, tourism is one of the most dynamically developing areas of the world economy. At the beginning of the 21st century, tourism has come to prominence in international foreign-economic relations, and has started to have a significant impact on the development of the economies in individual countries. At the same time, the influence of tourism on the formation of the gross domestic product (GDP) has also risen. At present, tourism has become a giant international industry covering 10.4% of the gross world product. There are numerous human resources, major production facilities and large capitals in this industry. Tourism and industries it covers play a crucial role in ensuring the employment of the population. According to WTTC (World Travel and Tourism Council, 2017), 313 million workers were employed in tourism in 2017 and it made up 9.9% of total employment. According to an analysis by UNWTO experts from the World Tourism Organization, the total annual income from tourism in 2020 will reach 2 trillion USD dollars. An analysis of the indexes of January-April 2018 shows that there is a 6% increase in international inbound

tourism compared to the previous year (World Tourism Barometer, 2018). One of the priorities of the economic policy of the Republic of Azerbaijan is to achieve the formation of a highly competitive economy based on innovations. An integral part of this policy is the development of the non-oil sector (including tourism), the formation of an innovative economic development model, improving infrastructure, developing information and communication technologies, developing human potential and building human capital. It is necessary to create scientific capacities and highly educated human capital for the formation of innovation based entrepreneurship in the field of tourism. The article analyzes the current state of tourism in Azerbaijan and the main tasks of the state regulation on tourism, then determines the role of human capital in tourism.

2. TOURISM AND ITS IMPACT ON THE ECONOMY

Tourism is a complex socioeconomic system consisting of elements that are interconnected. The main elements of this system include citizens traveling for a certain period of time (tourists); organizational-intermediaries engaged in tour operator and tour agent activities; a set of relationships during travel; the infrastructure of tourism and etc. Let's have a look at the impact of tourism on the country's economy. Mathieson and Wall (1982) in their studies claimed that the amount of foreign tourists' expenditures was the main indicator of the impact of tourism on the economy. Authors used the term "economic effect" to determine the degree of influence of tourism to the country's economy. Currency earnings, income generation; employment growth; improving economic structures and stimulating entrepreneurship such as the main economic benefits obtained were mentioned. The positive impact of tourism on the country's economy is reflected in the works of Frechtling (2010), Kvartalnov (2003), Ilic and Nikolic (2018). According to Pirozhenko (2012), tourism plays an exceptional role in the formation of GDP, provision of employment and activating foreign trade balance in many countries. In recent years, tourism has been advancing dynamically along with being as an innovative field (Hjalager, 2010, p.3). Application of modern information and communication technologies has expanded the geography of tourism and stimulated its development (Ilic and Nicolic, 2018). Kozyrev, Zorin and Surin (2001) point out that tourism has a strong impact on the region's (country's) economy; the tourism services sector ensures new job opportunities and acts as a catalyst for the development of the national economy along with as a multiplier of the growth of national income, development of employment and infrastructure and improving the living standards of the local population. Thereby, analyzing sources of literature leads us to come to such a conclusion that the positive economic effect of the tourism sector is one of the main reasons for the formation of the aggregate value, provision of employment, intensification of domestic and international trade, ensuring foreign currency flow, and the formation of the state budget revenue. Fletcher, (1989) and Frechtling, (2010) mentioned in their studies that tourism has a direct and indirect impact on the country's economy. The direct impact is reflected in the increase of the country's income thanks to the direct costs of tourists. The expenditures of tourists are allocated to the development of infrastructure and to increase the employment of the population in the country, thereby it will raise the income of both tourism companies and the countries that accepts tourists. The impact of tourism on the economy is that tourism development stimulates the development of other industries of the economy ("multiplier effect"). Hojo, (2002), Rusu, (2011), Kvartalnov, (2003), Kabirov, (2009) studied tourist multiplier. According to the scientists, the tourist multiplier is a factor that reflects the growth of the country's income, depending on the expenditures of tourists. The tourist multiplier allows to evaluate the impact of tourism on the country's economy compared to other industries and calculate the effectiveness of investment in tourism.

3. PRESENT STATE OF TOURISM DEVELOPMENT IN AZERBAIJAN

Tourism has an exceptional role in the development of the country's economy. There is a strong potential for tourism development in Azerbaijan. Rich natural resources, favorable geographical position, moderate climate conditions, ancient historical temples and monuments, centuries-old cultural heritage and hospitality, tasty and rich cuisine gives the contribution to the development of tourism. But for many years, tourism in our country has not been a priority, and the availability of rich oil resources has positioned Azerbaijan as an oil exporter in the world. The modern development of tourism has begun since 1991, when Azerbaijan gained its independence. In the first years of independence, our country has faced numerous problems, and the indicators on almost all industries of economy have fallen. One of the factors that directly complicated the situation and directly influenced the development of tourism was Azerbaijan to suffer from military aggression and to be in war condition. The turning point in the economy has begun in 1994 with the signing of an oil contract called the "Contract of the Century" with the participation of several foreign companies. Firstly, the contract, which envisaged the development and export of the oil field, also intended the development of non-oil sectors (including tourism) with oil revenues. Socio-economic indicators of Azerbaijan are reflected in figure 1.

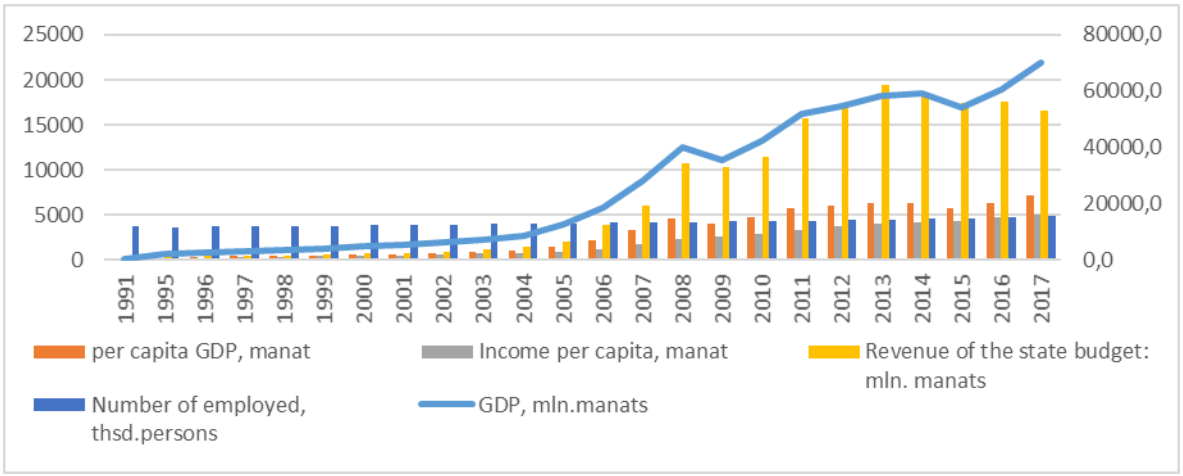


Figure 1: Socio-economic indicators of Azerbaijan (Adapted from the collected data from Statistical yearbook of Azerbaijan, 2018)

The schedule depicts that there is almost increase in the dynamics of all indicators compared to 1991. Thereby, GDP increased from 415.4 million manat in 1991 to 12522.5 million manat in 2005, and up to 70135.1 million in 2017. GDP has risen 21.8% annually on average between 1991 and 2017. The highest value of budget revenues becomes 19496.3 million manat in 2013 and it is 9.5 times more than in 2005, when the denomination of manat was observed. In 2017, budget revenues have dropped by 15.3% compared to 2013, but this figure increased by an average of 19% each year in 2005-2017. There was also a steady increase in GDP per capita and incomes of the population. Only in 2015 GDP per capita has been decreasing. Thus, in the last year 2000, the indicator increased by 9.6 times in 2015 to 5706.6 manat in 2015, which is 9% less than in 2014, while GDP per capita in 2017 increased to 7205.0 manat. There is a steady increase in the dynamics of the busy population in the economy, which is related to socio-economic reforms in the country. There was also a steady increase in GDP per capita and incomes of the population. Only in 2015 GDP per capita decreased. Thus, the indicator became 5706.6 manat due to increase by 9.6 times in 2015 compared to 2000, which is 9% less than in 2014, while GDP per capita increased to 7205.0 manat in 2017.

There is a steady increase in the dynamics of the employed population in the economy during those times, in turn it is related to socio-economic reforms carried out in the country.

3.1. The main directions of state regulation of tourism in Azerbaijan

The main goals of state regulation of tourism are follows: ensuring the constitutional rights of people to rest; creating of the appropriate conditions for the development of tourism; using efficiently of country's cultural potential for tourism development. In order to achieve these goals, the government should first assess the position of tourism in the people's lives and create favorable conditions for tourism activities. These conditions must be reflected in relevant legislative and normative documents. For the purpose of creating the necessary conditions for the development of tourism in our country and regions, regulatory and legislative acts on tourism industry include “The Law of the Republic of Azerbaijan On Tourism" (1999), "Tourism Development in the Republic of Azerbaijan in 2002-2005" (2002), State Programs on the Development of Tourism in the Republic of Azerbaijan in 2010-2014, "Azerbaijan 2020: Look into the Future" Development Concept (2012), The Strategic Roadmap for the Development of Specialized Tourism (2016). The Strategic Road Map (2016) intends to develop a tourism development strategy in the country and implement a plan of action related to it. The Strategic Roadmap includes the support of the development of the tourism sector, provision of high-quality and competitive tourism services at international and domestic markets, formulation of tourism experience in line with national values, involvement of new investment projects based on modern ideas and innovations, and interaction of relevant bodies related to the development of tourism. It is forecasted that as a result of realization of the targets for the period up to 2020, the real GDP in Azerbaijan will increase directly to 293 million and indirectly 172 million manat in 2020, and 25000 direct job opportunities will be opened by being only 35000 totally in the tourism sector. To achieve this goal, improvement of tourism infrastructure, successful promotion of local values in the international arena, formation of national tourism brands, improvement of tourism management, and human capital formation in tourism are of great importance.

3.2. Statistical analysis of tourism industry

In Azerbaijan the researches on tourism conducted by Alirzayev (2011), Yeganli and Hajiyev (2006), Hasanov (2014) and Hajiyeva (2017) can be noted. The average number of entrepreneurs in the tourism sector has increased by 4.5% in the last five years (Hajiyeva, 2017, p.330). Let's look at statistical data to analyze the development of tourism in Azerbaijan. The dynamics in the number of tourists coming and going to the country are depicted in the chart below. According to the chart, there is an increase in the number of tourists coming to the country during the period studied. Thus, in 2017, the number of tourists visiting the country increased by 3.5 times compared to 2005. The average growth rate in each period studied is approximately 111%. When looking at the other indicator, it seems that the number of tourists going out from the country exceeds the number of tourists coming. Thereby, in 2017 the number of tourists going out from the country increased by about 3,9 times in comparison with 2005, while it declined by 4% in comparison with 2016 (figure 2).

Figure following on the next page

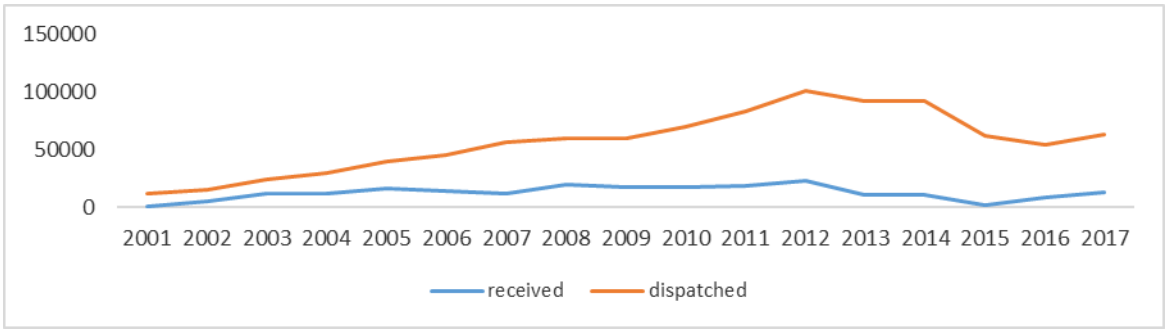


Figure 2: Number of arrived and dispatched tourists (Adapted from Statistical yearbook of Azerbaijan, 2018)

Let's have a look at the following charts to analyze the number of other factors that contribute to the development of the tourism industry - hotels and hotel-type businesses, travel agencies and tour operators, the income and expenses of these businesses (figure 3).

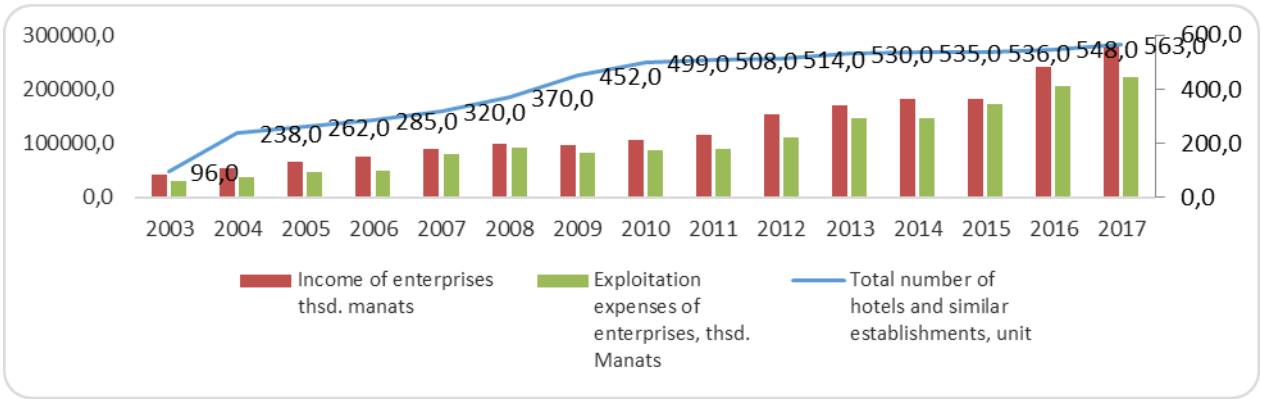


Figure 3: General economic indicators of hotels and similar establishments (Adapted from Statistical yearbook of Azerbaijan, 2018)

As depicted in the chart, the number of hotel and hotel-type businesses has been increasing since 2003. The number of these businesses increased by an average of 13.5% per year over the last 15 years studied. The revenue gained by these enterprises in 2003-2017 exceeded their expenditures. Also, if we look at the dynamics of revenues, it obviously seems that revenues increased 2.2 times in 2007 compared to 2003, 56.2% in 2012 compared to 2008, and 66.1% in 2017 compared to 2013. As for expenses incurred by hotel and hotel-type businesses for production of goods and services, there was a steady increase in 2009, with a decline of 10.3% compared with the previous year from 2009, but this figure continued to increase in the following years. This can be related to the further development of the tourism industry, construction of hotels and hotel-type businesses that meet world standards, and providing services (figure 4). When we look at indicators of travel agencies and tour operators (Figure 4), we see that in 2003-2017, the number of travel agencies and tour operators has increased year by year as the number of hotel and hotel type businesses. The revenues of travel agencies and tour operators are also on rapid increase.

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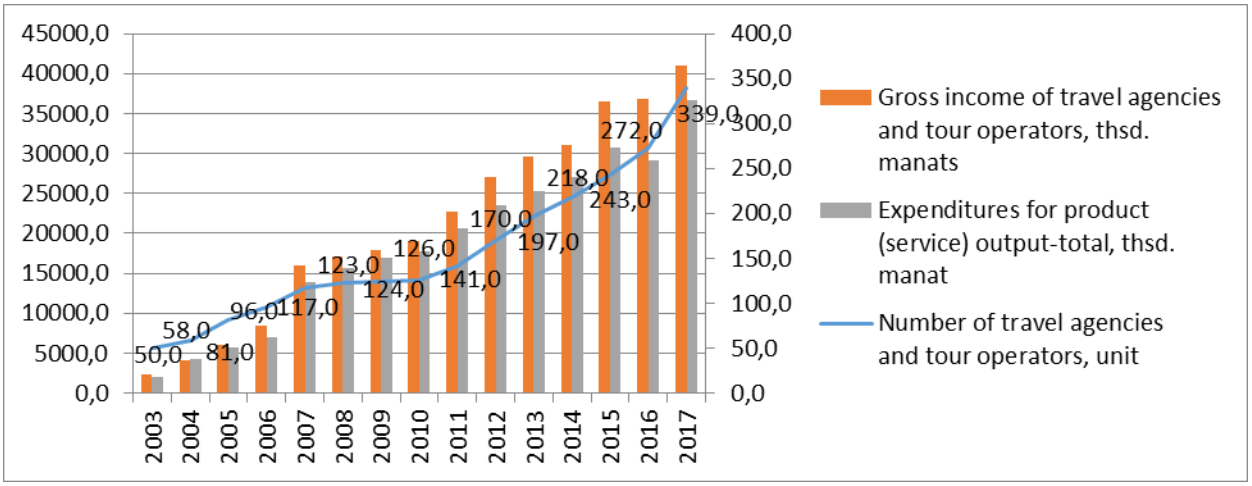


Figure 4: Main indicators of travel agencies and tour operators (Adapted from Statistical yearbook of Azerbaijan, 2018)

The average relative annual increase was approximately 23% in the latter. Expenditures incurred by travel agencies and tour operators for production of goods and services have declined only in 2016 and have fallen by 5.6% compared to the previous year. But in 2017, the expenditures for production of goods and services increased by 26.2% compared to the previous year and became 36734.6 thousand manat. Thus, it has to be noted that there is the stable development of the tourism industry in Azerbaijan based on the statistical analysis carried out.

4. HUMAN CAPITAL IN TOURISM

Human capital in tourism has become a need due to rapid development of tourism business and the application of modern information and communication technologies. Training of highly qualified managers with innovative management knowledge can be one of the competitive advantages of tourism businesses. Hence, tourism companies must invest in the development of human capital in order to achieve their strategic goals and to introduce competitive tourism offers to the market. In contemporary socio-economic conditions, human capital determines the level of economic development and scientific-technical progress. According to Becker's theory, human capital is a combination of knowledge, skills and experiences gained by people. Becker (1996) studied relationships between investments in education and employment and salaries, thus he came to such an end that the company should invest equally in human capital development as it invests in equipment and production. Cohn and Geske (1990) claimed in their research that directing investments into education is one of the key areas of productivity growth. Improvement of the quality characteristics of the staff, including development of its education, intellectual and creative potential, value system improvement, physical and psychological health, require involvement of investment in this process. Investments in human capital aim at increasing labor productivity and improving the quality of customer service. Authors mention these types of investments in human capital: expenditures on education; extension of the expected life span and health care costs; mobility expenses. Romer's (1990) study describes how companies that invest in human capital have a competitive advantage over market conditions and economic benefits of human capital. In Davenport's (1998) study, a mathematical model was suggested to calculate the aggregate human capital. The growth of aggregate human capital in this model is explained by the existence of multiplier relations (Metilelu, 2016). Based on the analysis of economic literature, human capital development raises productivity and competitiveness of enterprises. Investments aimed at protecting the health of the population, raising the level of education, and increasing the number of trainings held at workplaces are such and investment directed in human capital development.

These investments result in increase of workforce quality, rise in productivity, acceleration of economic growth, and revenue growth. The complete involvement of the company's staff in the production process make the tourism services much more specific; personnel directly participate in the provision of services and as a result it effects the quality of tourism services and customer satisfaction. The human factor is a main factor for the volatility and uniqueness of the quality of tourism services. People with certain knowledge, skills and experience are the main value and productive force of a tourist enterprise. For this reason, investments in staff training and higher education are of exceptional value. The quality and competitiveness of the tourist offer directly depends on these investments (Folarin, Oladipupo, Ajogbeje and Adeniyi, 2017; Metilelu, 2016; Tatarusanu, Onea and Zait, 2016). One of the important aspects of the sustainable economic development of Azerbaijan is the expansion of human capital and opportunities for development of human potential as a whole. Education plays a crucial role in shaping human capital. Today, education is an important factor in the success of the business entity in the marketplace, the country's economic growth and the increase in its scientific and technical potential (Teymurova, 2017, p. 43). While talking about the role of human capital in tourism, it should be noted that around 3 million jobs are opened in tourism and related fields every year. In 2017, the number of employees in tourism and similar fields in Azerbaijan was 46,837. According to estimates of experts, the demand for tourism workers in the country will be more than 75,000 people by 2023. There is a great need for highly-qualified professionals with field-specific education in the country to meet this demand. Specialists in the field of tourism are trained at the Azerbaijan Tourism and Management University (ATMU) and the Azerbaijan State Economic University (UNEC) in the faculty of "Tourism and Hotel Management". In 2017, the number of graduates in tourism has reached respectively 1635 (ATMU) and 192 (UNEC) in these higher education institutions, but this indicators don’t meet the current demand for training specialists for tourism.

5. RESEARCH AND DISCUSSION

The correlation - regression method is necessary to measure the relationship between tourism and human capital. In our research, the performance index is indicated with value added in tourism (in million manat (y)), factor indexes with number of persons who graduated from higher education institutions (in person (x1)), total number of people engaged in tourism (in person (x2)), per capita income (in manat (x3)), the expected life expectancy at birth (in age (x4)). According to the official statistics, we formulate a regression model based on the following table 1.

Table 1: Dynamics of indicators affecting on additional value in tourism (Adapted from the collected data from Statistical yearbook of Azerbaijan, 2018)

Years	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Value added in tourizm sector ,mln. manats,Y	70,5	100,8	160,3	303,1	343,6	442,7	757,2	897,4	1069,2	1269,1	1312,8	1424,1	1639,8
Number of graduates – to-tal, person, X1	32508,0	28141,0	31278,0	32580,0	34591,0	31071,0	30812,0	35128,0	33758,0	32826,0	33705,0	36951,0	37506,0
Number of employees in travel agencies and tour-operator enter-prises,X2	646,0	779,0	1115,0	1174,0	1393,0	1418,0	1541,0	1730,0	1729,0	1794,0	1586,0	1838,0	1891,0
İncome per capita, manat, X3	962,2	1201,3	1692,3	2378,3	2560,4	2866,1	3371,7	3789,3	4040,3	4192,4	4380,7	4710,1	5050,5
Life expec-tancy at birth, number of age, X4	72,4	72,4	73,0	73,4	73,5	73,6	73,8	73,9	74,2	74,2	75,2	75,2	75,4

The regression model of the factors affecting on the added value in tourism was as follows

$$\hat{y} = 11615{,}782 + 0{,}01X_1 - 1{,}061X_2 + 0{,}8088X_3 - 165{,}7019X_4 \quad (1)$$

As seen from model 1, if the number of graduates of higher education institutions increases by 1.0, the added value in tourism averagely will increase by 0.01 million manat and if the number of employees engaged in tourism activities increases by 1.0, it will reduce 1.06 million manat, and when per capita income increases by 1.0, it will increase by approximately 0.81 million manat, while the expected life expectancy at birth increases by 1.0, the performance index decreases averagely 165.7 million manat. Although the determination factor is $R^2 = 0.97$, the model is not so effective, because number of graduates - Total (X1) and Life expectancy at birth (X4) factors are insignificant as the table value of t-test with 95% confidence is 2.3 as shown in Table 2, thus, we avoid these factors.

Table 2: Regression model parameters

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Y- intercept	11615,78171	11687,42805	0,993869794	0,349392627
Number of graduates - total, person,X1	0,010114677	0,018647906	0,542402849	0,60231877
Number of employees in travel agencies and touroperator enterprises,X2	-1,061096055	0,370836088	-2,861361369	0,021107205
İncome per capita, manat,x3	0,808827893	0,196136374	4,123803648	0,003326723
Life expectancy at birth, number of age, x4	-165,701887	164,1650975	-1,009361244	0,342352059

Thus, the new model has received the following form:

$$\hat{y} = -82{,}447 - 0{,}82714X_2 + 0{,}637822X_3 \quad (2)$$

As seen from model 2, if the number of employees engaged in tourism activities increases by 1.0, the value added in tourism will decrease by an average of 0.82714 million manat, while the per capita income increases by 1.0, the performance index will increase by an average of 0.637822 million manat. When determining the model's adequacy with determination coefficient $R^2 = 0.99$, it was clear that factors affecting added value in tourism are statistically significant. In order to check the existence of autocorrelation, let's look at the following graph (Figure 5).

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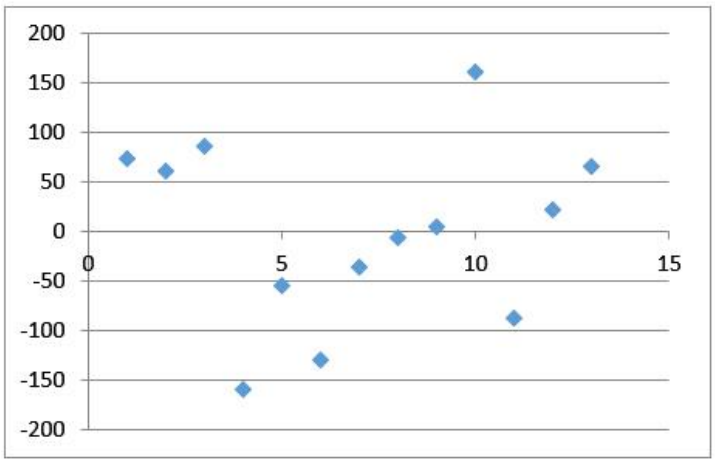


Figure 5: Schedule of fragments

When checking autocorrelation, refer to Darbin Watson's statistics:

$$DW=1,84 \qquad d_i=0,86: d_u=1,56 .$$

Because of d_u <DW<4- autocorrelation does not exist. Hence, according to the analysis, it was found out that the established model (2) can be regarded as adequate to reality, as it has meet the conditions of Gauss - Markov.

6. CONCLUSION

Thereby, summarizing the conducted research leads us to come to such an end that there is sustainable development of the tourism sector in Azerbaijan. The development of human capital in our country is crucial to increase the competitiveness of tourism services and to inroduce quality tourism offers in line with world standards into the market. As a result of the study, there is a strong correlation between tourism graduates from higher education institutions, human resources engaged in tourism, income per capita and expected life expectancy. The proposed model is useful for future research. Based on that, the forecast value of the value added in tourism can be calculated.

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MODERN ECONOMIC THEORY IN THE FRAMEWORK OF THE CHALLENGES OF THE XXI CENTURY

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ABSTRACT
Socio-economic theory (political economy) on the basis of main structures of modern economic theory, rational utilization theory (economics) of limited resources and the existence of institutional economic theory have been based on. The major differences of the main parts of the economic theory are worked out in the investigation. Political economy is regarded as a fundamental socioeconomic basics, according to its methodological aspects and the subject matter, differing from the other component of modern economic theory; neoclassic and institutionalism. The increasing of service sector in economy and the declining of share of material production is noted. It has been noted that the modern society can be called as "service community" and it is pointless to claim for the nomination as "postindustrial society".
Keywords*: economic theory, economics, institutional economy, political economy*

1. INTRODUCTION

The economic problems of a general theoretical character are investigated in the framework of modern economic theory in modern conditions. What is meant by modern economic theory? It is supposed that something does not exist yet, but there is a necessity to work out itor reassess accumulated scientific knowledge from the position of modern approaches.

2. PECULIARITIES OF ECONOMIC THEORY TEACHING IN POST-SOVIET COUNTRIES

The transition process from a directive-planned economy to a market economic system has led to significant changes in the official ideology in the CIS countries, including Azerbaijan. It could not find its reflection in the theoretical aspects of economic theory, which was based on the Marxist and Leninist principles in the near past. The forced rejection from teaching of political economy has become a manifestation of this ideological turn in the field of economic education since the early 1990s. The place of textbooks on political economy in teaching of general economic theory has been taken by the textbooks based on neoclassical theory which considered to be the main direction-the mainstream of modern economic thought in the West. In this regard, the actual question arises at what level - the main (basic, fundamental) subject is taught and what functions it carries out especially in economic universities. The various, sometimes polar judgments have been expressed. Sharp discussions concern the coordination of different traditions in the teaching of political economy, the conceptual content of the basic academic discipline, the place and role of economic theory in the system of economic sciences. These are often rooted in methodological differences, including the classical and the neoclassical trend in economic theory, the subject and method of political economy and economics. The teaching of indicated disciplines in the bachelor's and master's levels is now of fundamental importance. The development ways of the science of economics, as well as the future teaching model are widely interrelated. But if the choice is individual in science, it concerns thousands and thousands of people in teaching and that of the young people who own the future. Therefore, the choice of preferring one or another "model" in teaching has a social importance and must be accompanied by a critical approach, to not only one but the all possible methodological principles in teaching, and to finding out if they are able to solve the problems

of economic development in the current realities of post-soviet countries i.e. meet the challenges of time. It will allow to take into consideration the achievements of economic science in general and to contribute to the development of economic theory in the national frame. The divergence of opinions between different scientific schools of economic theory begins in fact with the name of economic science, claiming to perform the function of general economic theory, urging to give comprehensive knowledge of the rules and peculiarities of the development of economic systems in modern conditions and to prepare the appropriate primary unit categories. At the same time, the general economic theory is necessary not only for the formation of the fundamental theoretical basis in the field of economics, but also for the substantiation of making economic decisions. But in its present version, the mainstream of economic theory is not able to perform these functions, i.e. to solve the problems that the world community is currently facing. The economic theory attempts to find answers to the problems of the modern period (strengthening post-industrial trends, the ever-increasing internationalization of the economy, the transitional condition of the former socialist countries) looking for a primary conceptual theory or theoretical model that can explain not only previously not existed processes in social life, but also the logics of development of multipolar world. Therefore, the problem of radical changes in the methodological principles of economic analysis and more effective application of methods meeting the requirements of modern world through updating the academic discipline on economic theory on a pluralistic basis is being analyzed. According to the opinions of some economists, there was no significant leap in the development of economic theory in the past century; therefore, at the turn of the XX-XXI centuries, the problem of changing of the paradigm remains unresolved. Due to the lack of a new concept in economic science the opposite methodological directions are being tried to be revealed at the economic theory tuition courses. The opinion is spread, that there is no common economic theory, but only separate economic concepts. Such judgments are not acceptable, though it is impossible to deny the connection of each methodological direction with others. Among them, the most thoroughly developed are political economy, economics, and institutional economics that has recently become widespread. The question arises: is it possible to create common economic theory on their basis? It is difficult to answer it definitely. It is assumed that the word “theory” in the concept of “economic theory” was formed and evolved exceptionally on the basis of theoretical concepts and comments. It is expressed in one of the textbooks that this attempt, does not give anything, besides eclecticism, as the economic theory has different directions, different objects of research, different subjects, moreover the various methodologies are applied in this theory. The classical interpretation of the subject of traditional political economy, its categories such as price, capital, money, profit, wages, interest and rent are completely denied in the textbooks and in teaching of economic theory on the principles of economics [6]. It inevitably leads to the fact that economic theory is separated from its multi-central roots. As a result, the principle of succession in science is infringed; the scientific and theoretical concepts retaining their actuality are rejected. At the same time, when turning to the textbooks of the economic theory of recent years, the other tendency could be noticed. In some of them, the attempt of “consensus” has been undertaken between the methodology and the theory of classical political economy and economics. The textbooks “Course of Economic Theory”, edited by A.V. Sidorovich, “General Economic Theory (Political Economy)”edited by V.I. Vidyapina and G.P. Zhuravleva, although differ in the predominance of ideas of economics can be considered as an example of combining various directions of economic theory in the one scientific foundation class [4;5]. The textbook of “Economic Theory”, prepared by the departments of economic theory of the Azerbaijan State University of Economics in the Azerbaijani language under the general direction of T.S. Valiyev, A.P. Babayev and M.Kh. Meybullaev [7] has been developed taking into consideration the parallel existence of the main directions of economic theory.

3. PROBLEMS OF CLASSIFICATION OF ECONOMIC SCIENCE

Today, the solution of the important problem of classification, the logical ordering of the system of economic sciences is of great importance for improving the training course. Economic theory-is that field of the system, which is devoted to the study of the content and form of economic relations among the people in the process of their economic activity. Economic activity is studied by the various sciences each of which on one hand, has its own narrower subject and from the specific point of view is relevant to the given activity in accordance with its characteristics, and on the other hand, is distinguished by its methods of cognition, goals, and objectives. From this point of view, economic sciences can be divided into different stages of economic research according to the degree of theoretical generalization of the studied subject. The fundamental economic or general theoretical problems related to economic theory constitute the upper level. The middle level includes the subjects of research of special or functional economic disciplines (labor economics, finance and credit, marketing, management, forecasting, economic statistics, accounting and auditing, analysis of business activity etc.). The problems of the lower stage are the subject of research of field economic sciences (economy of industry, agriculture, transport, construction, etc.). Moreover, it is possible to single out the problems of the transitional stage, being the subject of the study of closely related fields or mixed economic sciences (economic history, economic geography, etc.). The classification forming the whole system of economic sciences are completed with subdividing them into fundamental and applied field of economics. Economic theory belongs to fundamental, and all other economic sciences belong to applied field of economics. Economic theory serves as the starting point for all economic sciences. First of all, it is explained that economic theory studies the general laws of the system of economic relations, reflecting the essence of economic phenomena. The epistemological (theoretical) basis of the fundamental role of economic theory in the system of economic sciences is associated exactly with this. That is why it is ideological in nature i.e. it forms a generalized view on economic processes. Therefore, economic theory, by virtue of its subject matter, provides a methodological resource for other economic sciences. Of course, the specific and applied economic sciences have their own subject and methods of research, otherwise they could not be an independent field of science. But economic theory on the basis of positivist, structuralist, dialectic and synthetic methodologies “supplies” all specific economic sciences, although different in content, but common in the application of research methods in these sciences. The categories established by economic theory, laws, and interrelations between them play the role of methodology for studying the system of economic sciences. The economic sciences developing on the methodological basis rely on the scientific logics of economic theory. In the recent years, the “Americanization” (“Westernization”) takes place in teaching of economic theory, with the implementation of microeconomics and macroeconomics, based on the methodology and the method of “economics” in the educational process. At present, a certain amount of experience has been accumulated in this direction and it is time to generalize and objectively evaluate it. If you look at the economic life of society through the prism of “economics”, it can be seen that it has not less deficiencies than the traditional political economy, from which we have refused. It is evident that the previous courses of political economy were distinguished by vaunted centralized distribution, and of course by the command economy. But the “economics” itself, which is a self-regulating system and is associated with one of the directions of world economic science, as an abstract-theoretical expression of a market economy, does not answer many questions and does not meet the modern requirements. “Economics” actually does not respond to the acceleration of economic management, its socialization on increasing of socio-cultural factors in its’ operation and development. The restriction in the training of specialists in the economic direction with the narrow framework of the "economy" unites this education, and in general, separates it from the current socio-economic reality, especially from the economic life of the country.

It is not about the rejection of the "economics" in the study process. But the task, in front of the study process is to enlighten the socio-economic reality of the country more fully. At the same time, it is necessary to show the existing contradictions, not only on the basis of abstract theoretical judgments of the West, but also relying, first of all, on their own past and present, as well as looking to the future to some extent. That is why it seems appropriate to revise the existing standards of economic education for the preparation of specialists in the sphere of economics. Currently, the vast majority of these standards is focused on the study of the "economics" and basically describe the non-existing ideal market model. It is necessary taking into account their given aspects to focus most of the standards on the socio-economic factors of the country, applying the concept of a post-industrial society and its new economic program.

4. THE MAIN STRUCTURAL PARTS OF MODERN ECONOMIC THEORY

In modern conditions, it became common opinion that the economic problems of a general theoretical character are studied within the framework of the so-called modern economic theory, which implies an exclusively neoclassical approach, more precisely, neoclassical synthesis with different variations (economics). In our opinion, such a theory should imply an unfulfilled, but extremely necessary direction of scientific economic thought, capable of reflecting the scientific knowledge accumulated over many years, implementing their reassessment and promoting to the new results. At the present time, "the modern economic theory", comprehended as a common science with a common subject and with a common methodology of analysis and presentation, interpreted in all its sections as a system of categories (economic concepts) i.e.as an actual scientific synthesis of the development of world economic thoughts and the integral knowledge of its main achievements, confirmed by the realities and tendencies of modern world socio-economic development, does not existed yet. Modern economic theory as a real fact is a selected concept, reflecting not an "organic" or even an "integral" system, but a system as a set of economic theoretical directions, doctrines, differing directly in their methodological principles. It is necessary to designate the general framework (boundaries) of the modern economic theory and the structure of its subject field. In reality, the economy has a complex structure, in which it is divided into three main levels. Firstly, the modern economic structure can be fixed as a set of socio-economic relations, in the center of which stands the character of the economic system, the method of appropriation, and the relations themselves act as a social form of productive forces. Secondly, it can also be understood as a set of functional relationships that develop in the process of movement of commodity, resource and financial flows in the economy and reflect the activities of rational use of resources, ensuring macroeconomic stability and general economic equilibrium. Thirdly, this structure may be a combination of institutions confirmed in the economy. Because of such a multisided economy it cannot be considered within the single coordination system; therefore, its' theoretical understanding should be multidimensional, containing different types of analysis. Modern economic theory, pretending an adequate scientific reflection of reality, should include several directions connected by a common subject- economic relations, each of which has its own direction and its specific narrower subject-socio-economic relations, functional economic relations and economic institutions. [3, p.54]. In accordance with this approach, the main structural parts of such a modern economic theory, as a combination of various basic directions can be represented in the following version:

a) Socio-economic theory (Political economy). The subject of its research, studies are directly the socio-economic system, the economic structure of society, their form and model;
b) The theory of rational utilization of limited resources (Microeconomics and Macroeconomics). The subject of this field includes the analysis of economic relations at the micro level (microeconomics) and the macro level (macroeconomics);

c) Institutional economic theory. The content of the economic system here is considered against the background of the interconnection of economic and other subjects, the influence of such relationship on economic development is investigated. [4, 54]

The study of the world and national economic structure of society as a whole system, comprehended in this sense, is possible by combining in a single tuition course on the general economic theory of socio-economic analysis of real economic relations with the study of the use of limited resources with sufficient information and comparative characteristics of different approaches existing in modern science. In this regard, it is impossible to agree with attempts to deny both political economy and economics having the right to be scientific disciplines taught in higher education. The refusal of the status of scientific and academic disciplines of political economy and economics, having a significant theoretical base, historical roots and conceptual scientific schools, can be assessed as a manifestation of economic nihilism and ignorance.

5. THE INCREASING ROLE OF POLITICAL ECONOMY IN RESEARCH OF MODERN SOCIO- ECONOMIC PROBLEMS

The modern crisis of political economy in the post-socialist countries has taken a concrete form of the crisis of Marxism. It is not by chance, because Marxism was the dominant ideology in these countries. However, political economy as a fundamental scientific discipline was formed even before Marx and Engels. They raised a science to a new level, which was already actively developed and taught, in particular, in England, France and other countries, united various streams and directions. The concepts of mercantilists, physiocrats and classics of bourgeois political economy W. Petty, A. Smith and D. Ricardo should be mentioned. Representatives of all schools and trends in political economy recognized its fundamental nature, proceeding from the fact that the categories and laws revealed by this science do not lie on the surface of the phenomena. Their external forms do not allow to understand a deeply hidden essence; this requires a special methodology of knowledge, a special instrument of research of the nature of economic processes and phenomena. Today, the ability of political economy to refer systematically to economy as a national, social economy, as well as the problems caused by the information revolution and globalization, objectively created the basis for the revival of political economy both in teaching and in scientific research. Political economy reveals the essence of economic relations among the people in regard with production, distribution, exchange and consumption of products, objective economic laws. These fundamental relations of society form the subject of political economy, and those are not directly included in the subject of other economic disciplines. Highlighting the content of industrial relations, political economy reveals the basic structure of society and the nature of the main, stable interactions of groups of people engaged in the economy, establishes the presence or absence of exploitation, describes its mechanisms and consequences, explains the laws that determine the fundamental direction of the development of social production and reproduction. Neither macroeconomics nor microeconomics, as the sections of the economy, sets as its task a special study of industrial relations, the identification of internal, underlying laws of motion of the economy, accessible to the observer, but hiding the essence of economic processes. For the understanding of modern economic realities of the XXI century, it is evident that there is a need for political economy, both as an academic discipline and as a scientific direction. If there exist industrial relations among people in different economic systems (industrial relations in a broad sense), then political economy has the right to exist, whether we like it or not. Today, society expects clarification of nature, character of our economy, the substantiation of goals and development ways from the political economists and economists-scientist. It is absolutely necessary in a situation, when the social tensions increase, strengthen, breaking in various conflicts and dissatisfaction with established economic relations.

Social stratification is deepening, differentiation of owner's incomes, managers and other hired personnel is becoming transcendent, and the working conditions of the latter are worsening. These facts cannot dismissed. Who but not political economists should explain the present categorical scientific conclusions to other economic sciences and help them to find solutions to the relevant concrete questions? The scientific and technological revolution extending in the recent decades has led to fundamental changes in the development of social production. The share of traditional industries (including material production) in GDP is relatively decreasing, and the field of services are developing, including, education, science, culture, health care, and various kinds of financial and trade services. This circumstance, however, is ambiguously interpreted in the literature. Some authors try to substantiate the conclusion that the sphere of production is being replaced by the sphere of services, that the economy as a whole turns into a posteconomy, and the society itself, respectively, into a postindustrial, post-economic one. Undoubtedly, under the influence of the NIT, the new information technologies, the restructuring of the economy occurred, which could not be reflected on the dynamics of employment. But it doesn't at all mean, that material production is abolished altogether, as a result of which a certain epoch of posteconomics begins and a posteconomic society appears. Such a conclusion can hardly be considered substantiated, since it does not correspond to reality. It should be refused from the paradigm of post-industrial society, because this is a conscious fraud, since there is no post-industrial society yet and most likely a new stage begins in science intensive society. In our opinion, we should agree with V.N. Cherkovets, who notes that there is no reason to judge the level of the so-called "post-industrial" development of the country by such "secondary" indicators as the increase in the share of services in GDP, the share of allocations to the social sphere from the state budget, etc. [3, 121- 122]. Such indicators can reflect both high and low level of development of the country. The "primary" indicators are principally more important, on which the analysis should be done for fundamental changes in the attitude of people to nature, that is, in material production, and in the nature of the labor involved in it. Especially in the instruments, means of labor and technology - the main point of qualitative changes in the productive forces have been revealed. The profound upheavals in this sphere are apparently taking the form of revolutions both in the productive forces and in the socio-economic system. The modern economy, even in the USA, continues to remain predominantly industrial. Mainly, the industrial basis is the fundamental principles for the modern development of individual innovations, such as the cutting edge information systems, biotechnologies and nanotechnologies. Under the conditions of the modern scientific and technological revolution, the integration of material production and the social sphere is increasing. On the one hand, the influence of elements of material production increases within the social sphere, the utilization of machine systems that require the joint work of scientists, engineers, technicians and workers are expanding. At the same time, the role of the social sphere increases within the material production, which is manifested in the increasing of the intellectual and cultural development of the so-called "human capital", the influence of health care on the maintenance and development of comprehensive abilities of personality. However, the increase in the functional role of the spiritual element, mental work, the strengthening of the science role, knowledge, health protection in production does not refer to the boundaries between material production and the social sphere and disappear as their results. The qualitative difference of material production and its role as the basis of the entire life of society and all other types of activities, including the social sphere, remain at all stages of the development of human society. Thus, the social sphere acts not as a single-order in comparison with material production, but as a secondary in relation to its content and functional role in the social reproduction.

6. CONCLUSION

Thus, a new structure of economic theory is being formed in modern conditions, in which the political economy as a socio-economic doctrine plays a special role and serves as a comprehensive analysis of economic life, along with the neoclassical (micro- and macroeconomic theories) directions and modern institutional direction being formed (here you can add-former institutionalism of T. Veblen and his modern followers).

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BENCHMARKING OF IMPLEMENTATION OF ADVANCED MANAGEMENT TECHNOLOGIES OF RUSSIAN ORGANIZATIONS & DIFFUSION OF THIS EXPERIENCE TO COUNTRIES OF CASPIAN REGION

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ABSTRACT

This paper considers specific features and tendencies of innovation economy, which set the issue of business competitiveness under such conditions at a different angle. Research of tendencies of present-day management development acknowledges the breakthrough that the world companies are now making and confirms the necessity for modern businesses to master such tools of management. The article emphasizes that revolutionary reforms will not succeed unless they consider with correlations between economy and culture, national and regional mentality. It also states that it is necessary to consider with the obtained findings of the GLOBE project executed by the Wharton School of the University of Pennsylvania (USA) in over 60 countries to identify social and cultural factors that favor or (on the contrary) hamper the development of innovation economy in Russia. It analyzes the factors that hinder the development of innovation economy in Russia in general and Astrakhan Region in particular – a high power distance and a high degree of uncertainty avoidance. Based on analyzing the national culture specifics, the paper provides recommendations for national and regional businesses to set their top priorities – develop unique innovative products, rely on manufacturing small series, experimental production, and creativity instead of mass production. Applying benchmarking, the paper concerns theoretical and practical approaches to determining possible forms of cooperation with the Caspian countries in the field of introduction of digital technologies into activities that CEOs of those countries perform, considering with the adopted Convention of the Legal Status of the Caspian Sea. In this aspect, the article concerns issues related to implementation of flexible methods of management in the field of development of human resources and digital technologies into management practices of the Caspian countries.

Keywords: *innovation economy, benchmarking, management technologies, national mentality, corporate management*

1. INTRODUCTION

At each stage of history, management has been applying the tools that are the most appropriate for the development stage that a company is undergoing. Yet, there are tools of management

that determine an efficient solution to present-day management tasks at any stage of development. What management technologies do most managers of Russian organizations apply under conditions of post-crisis development and impact of economic sanctions? First of all, it is benchmarking, which makes it possible to identify your own position in relation to your competitors, study and adopt the best experience gained by other organizations. If compared with the traditional competition-based analysis, benchmarking is a more detailed, formalized, and ordered tool (Tripolsky, 2008, p. 290). According to annual ranking reviews by Bain & Company, the well-known consultancy, which has been surveying several thousands of CEOs all over the world since 1993 to identify the most widely applied tools of management, benchmarking has strengthened its positions as the most popular tool of management. Analysis of the dynamics of management tools applied by top managers over 2000-2013 has proved that the most popular and efficient tools of management are four classic technologies – strategic planning, benchmarking, the Balanced Scorecard (BSc), and the Customer Relationship Management (CRM). In the rankings of applied managerial tools, benchmarking assumed Position 3 in 2000 and 2004, Position 4 in 2006, Position 1 in 2008 and 2010, and Position 2 in 2013, having yielded only to the BSc. As one can see, benchmarking has deserved its position at the top of worldwide ranking of management tools. As for Russia, according to the Bain & Company's Russian partner, CEOs of Russian companies apply five tools actively. Position 1 is occupied by benchmarking; it is followed by strategic planning, CRM, key competences, and strategic alliances (Milov, 2007). Copying of positive experience gained by competitors is applied more or less widely by 80 % of Russian organizations. As practice shows, managers of successful companies often compare them with their competitors; they regard comparison of their performance with the best business practices as a key process of their management activities.

2. PROBLEM STATUS

In the late 20th and early 21st centuries, the world stepped into a new stage of its development, which was named innovative economy. Its specific features include, first of all, the process of globalization, which becomes the dominating factor in the modern world. It implies extension of the geographical scale of business activities as borders and other barriers are disappearing (Cohen, 2004). The national identity of economy is losing its key role under the current conditions, when transnational companies influence the political and social processes stronger than the national governments. Thanks to globalization, competition has increased sharply; deregulation and reduction of the role played by the government are taking place. Thus, globalization of business, international hypercompetition, emergence and development of new forms of competition, a huge-scale development of telecommunications and the Internet, which cross national and cultural borders, force all the participants of the global markets to accept the principles of business and management that the global consumer requires. M. Zeleny reflected the real consumer preferences under conditions of innovative economy as follows: global consumers wish they got everything all at once: high quality, low prices, prompt delivery, and maximal reliability (Zeleny, 2002, p. 72). We regard innovative economy as a new look of the national economy, successful corporations and enterprises; this new look has been formed owing to influence exerted by globalization, informatization, digitalization, hypercompetition, and processes of knowledge creation and promotion; we regard it as a more efficient economy that applies modern tools of management. It is hypercompetition that requires organizations' continuous identification and sustainment of its key competencies, which indicate the necessity to manufacture what that organization is able to produce its products better than its competitors do. Another new tendency is not possession of knowledge, but the speed of creation of new knowledge. Besides, Russian businesses must not ignore the growth of the population's activity and self-conscience, its striving to achieve social justice (not only within organizations, but also

in relation to financial structures), requirements of the local communities for a better commitment of businesses to tackle social issues for the population and the society. Digitalization of economy becomes of top importance over the last months for both Russian businesses and all the organizations operating in countries of the Caspian Region. Digital economy implies a far more active application of new tools to meet business goals; those tools ought to comply with the fourth industrial revolution, or Industry 4.0. It includes mastering and implementing various tools and technologies at a modern enterprise: cloud computing, 3D printing, tools of the Internet of Things, virtual and augmented reality, Big Data, the blockchain technology, artificial intelligence (AI), highly productive platforms to store and process data (such as HANA), etc. As innovative economy is developing, Russian companies have to face new tendencies, the main of which is an incredibly high speed of modernization. In response to global challenges and tendencies of digital economy, the task to stay competitive is set in a different way. Managers of Russian organizations ought to strive to establish a company that would change with the same speed as its surrounding; innovative activities ought to be continuous and involve each and every member of staff, who should be prepared to take an initiative, be inventive, creative, and deeply involved in their company's activities (Hamel 2011).

3. DISCUSSION

However, few countries have managed to establish innovative economy, as experience gained by various countries demonstrates. Even not all the developed countries have managed to do that, according to A. Auzan, Dean of the Faculty of Economics of Lomonosov Moscow State University (Auzan, 2016, p. 82). More and more frequently, researchers express the idea that modernization reforms aimed to build an innovative economy will not be productive unless they include the "cultural" aspect. Attempts to modernize economy in Russia made over the past decades were based on either application of its economic growth hypothesis, or its general democratic development by creating efficient market institutions; yet, they have not led to the result that was expected. Probably, the unconsidered factor, which is crucial for a competitive, sustainable, and safe development of regional and national economies, is consideration with the national culture and mentality, i.e. the ground on which all those institutions are based? The process of cultural changes takes quite a lot of time. Nowadays everyone has already realized the necessity for Russian managers to enhance such key competencies as ability to adapt, make efficient decisions under conditions of uncertainty, think systemically and strategically, and, what is the most important thing, assume responsibility. The best-known foreign research of specifics of Russian management, which was conducted in middle 1990s by the Wharton School of the University of Pennsylvania (USA), is the GLOBE (Global Leadership and Organization Behavior Effectiveness) project. Its participants surveyed over 17, 000 top managers of 825 organizations in 61 countries, including Russia (Grachev, 1999). This research applied practically the same parameters of comparison as the model by G. Hofstede as the main characteristics of management and business leadership. Right after its first results had been obtained, the research proved that views on assessment of efficient management styles are getting closer. An efficient "world" leader is a trustworthy, energetic, determined, clever, reliable manager who is able to plan beforehand and motivate others. In Russia, an efficient leader is different. The project authors drew his or her psychological portrait as perceived by Russians as follows: "It is quite a contradictory personality with a definitely tough and autocratic style of management. Its main features are: ability to make individual decisions and bear responsibility for them; he or she does not try to save his or her face; they act openly, quickly, and quite competently in an unstable external environment. A leader is not aimed at the result of their activities so much; he or she is more oriented at the very process, being at the same time very attentive to his or her status.

Nevertheless, aggressive style of behavior and absence of vision of the future does not allow him or her to become a strong charismatic leader" (Grachev, 1999, p. 28). From the well-known research of managers all over the world conducted by G. Hofstede in 1980s with respect to his five dimensions of the national culture (the power distance index, individualism vs collectivism, uncertainty avoidance, masculinity vs femininity, long-term vs short-term orientation) to the more recent 1995 research as part of the GLOBE project, the most remarkable changes in Russia occur in the power distance index (it decreases slightly) and in the masculinity index (it decreases as well). It may be due to continuous behavioral changes (but not due to changes in values) of staff of Russian companies owing to social and cultural factors. Prof. A. Auzan, referring to the findings of the GLOBE project, emphasized the social and cultural factors that favor (or, on the contrary, hamper) the development of individual processes. The factors stimulating innovative economy are individualism and long-term orientation, i.e. looking into the future. The two factors that hamper its development are a high power distance and a high degree of uncertainty avoidance (Auzan, 2016, p. 82). A high power distance as a factor hampering the development of innovative economy implies that the Russian authorities still regard their ordinary citizens as "small people"; similarly, the authoritarian style of management prevails in economic life of business companies; there is a fear of disagreeing with a top manager. That is why unpreparedness to negotiate and a belief that authorities will solve all the problems themselves is still a reality in Russia. Regional researchers' findings also prove that management strongly believes that it ought to retain its monopolistic position to form the strategy and have a sufficient number of tools to persuade and force all the other participants of the strategic process to accept their vision (Epifanova, 2013). A high degree of uncertainty avoidance, which is also typical for Russians, is the second factor that hampers the development of innovations in Russia; it reflects Russian people's belief that any change would lead only to a poor result; people are afraid of changing their work, even if they are not content with their salaries and working conditions. The GLOBE project also identifies particular advantages and drawbacks of Russian management. As for advantages, they are: disposition to innovations, being eager to play and take a risk, being ambitious, self-criticism, being ready to help unselfishly, and being keen on studying. Among the drawbacks, they include being too much inclined to politics, a pejorative attitude towards themselves and their country, squandering (with regard to the time resource), egocentrism, greed, and embracing too wide fields of activities (Gorbanev, 2010). Even being aware of specific features of the Russian mentality, which hamper the development of innovative economy in Russia, one should not reject the task to establish a real innovative economy in this country. The change of generations, when the Baby Boomers and Generation X are followed by Generation Yers (ambitious young people born in 1984-2003, who are able and willing to study), seems optimistic. Generation Yers are inclined to innovations and experiments; they are able to operate large volumes of information; they treat their work as a source of pleasure and self-expression; they have good skills to search for solutions as a team; they master new knowledge and skills quickly, and at the same time they do not wish to study by the book; they strive to get a prompt result. Another specific feature of Generation Yers, despite their too high self-esteem when they search for work, is their tendency to whatever is new and innovative; they are never tired of studying and therefore they are always aware of any new professional technique or practice; they welcome teamwork and new fields of activities. They are very creative, but impatient, which must be taken into account when working with them. They ought to be committed to their companies emotionally; this feature may be used when one arranges informal corporate events, especially social projects, volunteering, etc. In our view, a permanent influx of ambitious Generation Yers to Russian companies, which is expected to take place in the near future, should help them overcome numerous obstacles on the way of development of innovative economy in Russia. Generation Y has been raised on social networks; these young people can operate huge volumes of

information; they have skills to search for solutions as a single team; they know how to apply their numerous social contacts. In an innovative economy, one's ability to obtain information promptly, process it, and react to it swiftly is frequently more essential than one's experience. That is why there is a hope that not only a high degree of uncertainty avoidance, but also a high power distance will decrease in the future and that these two factors will no longer hamper the development of innovative economy and introduction of digital technologies. Owing to adoption of the Convention of the Legal Status of the Caspian Sea in August 2018, the right conditions to advance cooperation between the Caspian countries to a qualitatively new level to develop close interaction in various fields (first of all, in the field of digital economy) have been provided. There are five countries washed by the Caspian Sea – Russia, Azerbaijan, Turkmenia, Kazakhstan, and Iran. They regard the Caspian Sea as an object of legal claims and as a source of sufficient incomes for their national budgets. To determine how well advanced management technologies may be diffused there, one should consider with two indices – the global competitiveness index and the corruption perceptions index. These two indicators form the business world's and potential investors' expectations of their penetration into the national markets. The global competitiveness index was developed by experts of the World Economic Forum; it includes indicators of nine basic groups: institutions; appropriate infrastructure; stable macroeconomic framework; good health and primary education; higher education and training; efficient markets; ability to harness the existing technology and produce new and different goods using the most sophisticated production processes; business development; innovations. The 2017 Global Competitiveness Report has indicated that Switzerland and the USA occupy the top position (5.9 points); whereas Yemen holds the bottom position – 2.9 points.

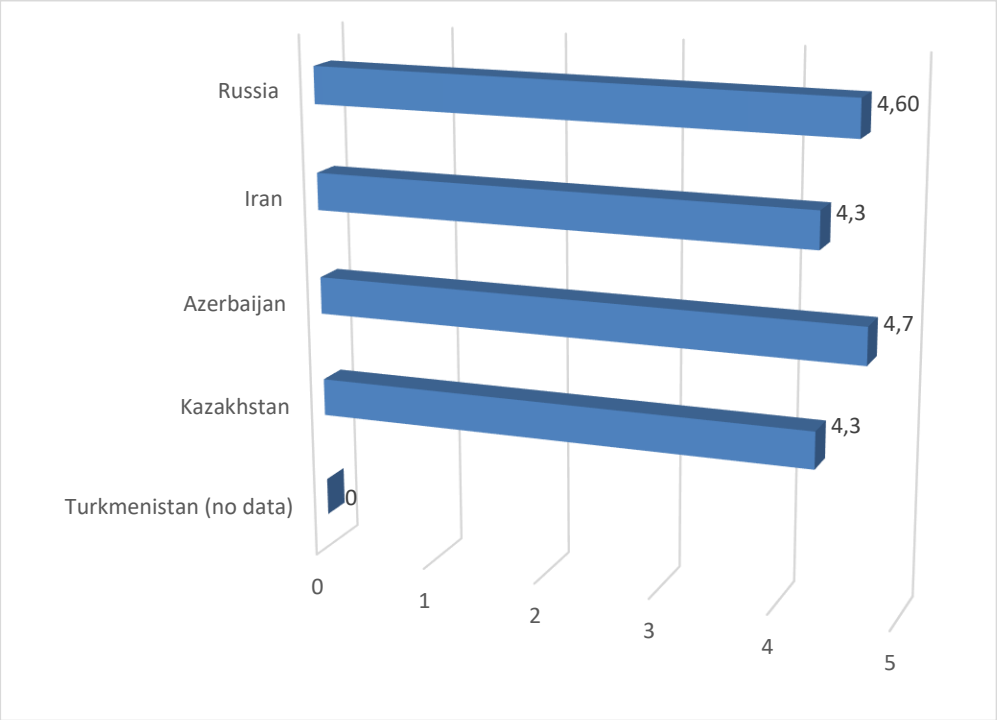


Figure 1: 2017 Global Competitiveness Index of Countries of the Caspian Region, points

As for the corruption perceptions index, it is an aggregate indicator that reflects all the actions (including insignificant ones) that may be regarded as corruption offenses. Based on obtained data, countries are ranked on a 100-point scale. In this ranking, countries with a high level of corruption have 0 points, whereas countries with an extremely low degree of corruption get 100 points.

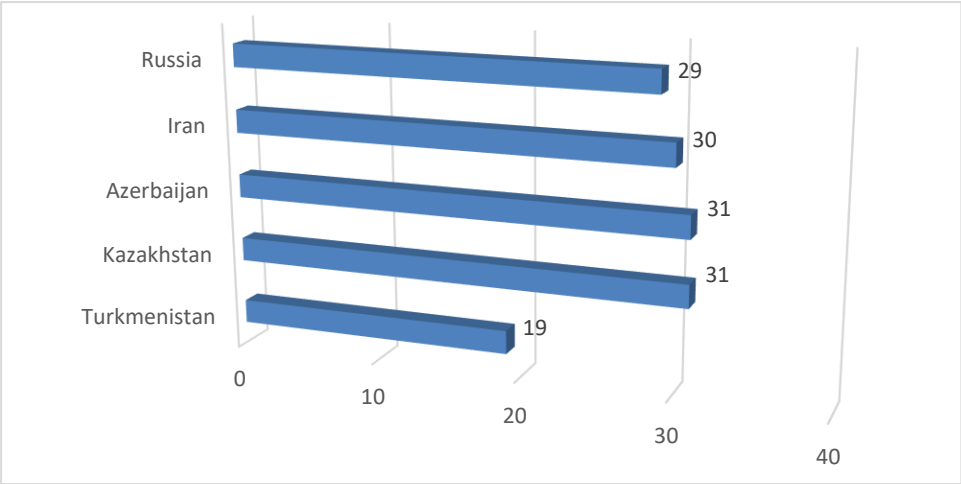


Figure 2: 2017 Corruption Perceptions Index of Countries of the Caspian Region, points

According to Transparency International, bribery is a phenomenon that more or less spread in all the national economies all over the world. Over two thirds of the countries included in its ranking have received under 50 points; their arithmetical mean value is 43 points. It makes it possible to make the appropriate conclusion about potential diffusion of advanced managerial experience between the countries of the Caspian Region.

4. CONCLUSION

Therefore, one has to make many efforts to create a real innovative economy in Russia. The obtained findings of polling Russian innovators who work in the national innovative sector confirm their professionalism and their being prepared to tackle any problems and initiate any activity. A. Auzan writes about them: "They treat their profession as their vocation, not as a means to earn money. They are able to work creatively; they mobilize themselves quickly and they work well, even though they do not like to think about the distant future. They are good startupers; however, they rarely make a career at large innovative companies: they give birth to an idea, but they quickly lose interest to its implementation, and then another bright idea comes to their mind" (Auzan, 2016, p. 83). There are many examples of efficient innovative companies in Russia; they operate in the field of IT, new materials, medicine, robotics, space, and armament. Analysis of the most remarkable inventions of the 20th century confirms that innovations come mainly from startups, which create something; afterwards large companies adopt their developments. Thus, considering with the Russian mentality, it seems more appropriate, first, to develop unique innovative products, rely on small product series, experimental production, and creative industries, since competitiveness of mass production is not so high. It will thereby increase the values of characteristics of social and cultural factors of a Russian manager's profile (since those factors currently hamper the development of innovative economy in Russia in general and in its regions in particular); thus, indicators of the national culture will undergo a gradual enhancement. To form innovative economy in Russia as soon as possible, it is essential to be aware of such a tendency in the world management as the world companies' rapid advance into the digital economy, introduction of flexible management methods (in particular, the Agile Method) and other new organizational innovations in the 21st-century management (principles of self-governing holacracy, establishment of requisite organizations, etc.) into their practices (Fukolova, 2017). Necessity and willingness to apply the best world practices, i.e. principles of benchmarking, is gradually reaching the Russian market. In our view, it is flexible methods that can help adapt to changes and challenges faster, as well as implement innovations, including digital technologies.

Experience gained by the world's most advanced companies confirms that, since those companies also try to comply with the best practices of present-day organizations and adopt methods of the Agile flexible model; they substitute their operational management practices with rates indicating staff assessment, skills development, recruiting and rewarding, support of staff training, etc. Such management activities as provision of new opportunities not only for yourself, but also for your partners from other countries (first of all, from those of the Caspian Region) to integrate joint efforts will help Russian companies cope with the shift to digital business models. No doubt, future establishment of the Caspian Economic Cooperation Organization and the annual Caspian Economic Forum will contribute to the development of contacts between business communities of the five countries of the Caspian Region. In our opinion, cooperation in the field of application of digital technologies in management and HRM should be started by studying new innovative technologies, which have already been implemented in the Caspian Region successfully, and benchmarking them actively.

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PROSPECTS OF ENSURING THE SUSTAINABLE DEVELOPMENT IN AZERBAIJAN

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ABSTRACT

It was possible to overcome the crisis period and achieve economic development by favoring natural resource utilization (hydrocarbon reserves) in transition to the new economic system stage in Azerbaijan. The rapid consumption of certain resources for its recovery creates certain difficulties in the process of economic growth. Therefore, it is necessary to analyze the balance between the consumption of resources and its recovery. Economic development, social development, and economic development, which are the pillars of sustainable economic development, are impossible without adequate financial support. After independence, the most important part of the 250 billion US dollar's investment has been invested in physical capital. The dominance of physical capital investment is characteristic of the Factor-Driven Economies, which is the first stage of economic development of the countries. According to the 2014-2015 report of the World Economic Forum, Azerbaijan is included in a group of countries which passed from the first stage based on factor-based economies to the second stage with an efficiency-driven economy. According to the World Economic Forum's classification of stages of economic development, Azerbaijan's ec,onomy is characterized by a transition from the first stage of development to the 2nd stage of development (factor effectiveness), which is more promising for human capital than physical capital. In the transition from the first stage of economic development to the second stage of the economy, which is characterized as an efficient economy, it is possible to create favorable conditions for the transition to innovative development (Phase 3) by creating favorable conditions for human capital development. It is expedient to give priority following to ensuring sustainable development in Azerbaijan:1. Gradual preference of oil revenues to financing non-oil sector; 2. Creating favorable conditions for the formation of human capital as a result of the development of all forms of education; 3. Achieving an increase in the share of non-oil products in GDP by stimulating regional development; 4. Promoting the use of recurrent (renewable) resources; 5. To achieve an increase in import-substituting products in the national economy; 6. Stimulation of export of non-oil products; 7. To achieve an effective rate of national economy sectors by improving the structure of the economy; 8. Development of the mechanism of returning of this investment to the state budget gradually from the revenues of the economic sectors invested in the state budget;

Keywords: *efficiency-driven economy, factor-driven economy, human capital, non-oil sector, sustainable development*

1. INTRODUCTION

Azerbaijan had started to establish the basics of sustainable development in the first years of independence by ensuring the macroeconomic stability. The target of the policy pursued in the country was to establish the basics of the sustainable development by rationally mobilizing the whole economic potential. Matter of fact, the economic development was achieved by favoring the depleted natural resources in the first period of establishing the basics of the sustainable

development. However, it could not have lasted this way for long. As a result, the ecological balance could have been violated. That is why the substantial part of revenue from crude oil export has been aimed at developing the non-oil sector. The economy is diversified in order to ensure the sustainable development in our republic.

2. CHAPTER 2

The independence of the Republic of Azerbaijan coincided with when the sustainable development concept ("Agenda 21" was endorsed in the United Nations Conference on "Environment and Development" dedicated to the sustainable development challenges, held in Rio de Janeiro on June 3-14, 1992) was approved. While there was an adequate economic basis for transition to the sustainable development in many countries, particularly in the developed countries, the Republic of Azerbaijan was not only capable of ensuring the sustainable development, but also facing the other serious economic challenges - solution of which was so necessary for the country. Among the priorities were to establish the basics of new economic system (market economy) through denationalization and privatization, shape the national economy that could work by the principles of the market economy and an effective integration to the world. The solution to these issues depended on the effective mobilization of the country's economic potential. In the first years of independence, Azerbaijan had to favor the natural resources in ensuring the economic development due to the extreme scarcity of the other resources. Azerbaijan managed to overcome the crisis situation and achieve the economic development during the transition to the new economic system by favoring the utilization of the depleted (hydrocarbon reserves) natural resources. However, this course of action was not suitable for sustainable development. The development through favoring the human capital and the inexhaustible and renewable resources without causing a danger for future generation is the prerequisite for the sustainable development. However, the development of the human capital and favoring the inexhaustible resources depend on the economic development level and economic potential of the country. The weakness of the human capital development and economic potential in the newly-independent countries was causing enough challenges in ensuring the sustainable development. On the one hand, private property relations were being shaped which were the basics of the new economic system that could play a role in ensuring the sustainable development, and on the other hand, the integration to the world that achieved certain successes in terms of ensuring the sustainable development was in process. Ensuring the sustainable development was gradually becoming the reality as the private property relations had the potential to establish the scheme to effectively utilize the resources. Following the optimal ratio of utilizing the depleted and inexhaustible resources is of great importance. This ratio should be achieved by prioritizing the use of inexhaustible and renewable resources. Even the consumption of a certain portion of these resources may outstrip their restoration. Faster consumption of certain resources than their recovery causes certain challenges in the process of economic growth. Therefore, it is necessary to conduct the analysis in order to maintain the balance between the consumption of resources and their recovery (Tracuka, 2015 p 65). As shown above, the main source of the formation of economy in the independent Azerbaijan has been natural resources, hydrocarbon reserves and crude oil. Oil has not always brought happiness for the nations. The oil can bring happiness to the nation that owns it when the independent state utilizes the natural resources to realize the national interests and everyone has a chance to benefit from it. Azerbaijan prioritized to develop the oil industry, the only field that could draw in the foreign investment in then historic stage, which was the locomotive of our economy in order to lead the country out of the state of crisis as soon as it restored its independence. During the Soviet period, over 70% of the main equipments of oil industry were out of date and the applied technology was incapable of reviving the oil production. The existing technological equipments failed to revive the oil industry of the country.

Bringing the new technology became possible by stimulating the arrival of the leading oil companies which in turn played an irreplaceable role in reviving the Azerbaijani economy. It is impossible to realize the environmental, social and economic developments - the pillars of sustainable economic development without adequate financial support. This source of finance has been shaped thanks to the oil revenues in the first stage of forming the new economic system. The foreign investment made in the oil industry of Azerbaijan in line with the international contracts in the first years of our independence has been spent as the investment in the physical capital. After independence, the most fundamental part of about USD 250 billion investments for Azerbaijani economy has been made in physical capital. The dominance of physical capital investment is the feature of the Factor-Driven Economies which is the first stage of economic development of the countries. During the independence, the oil sector has dominated in the production and export for long. The most substantial portion of GDP and export has accounted for this sector. Drawing the world's leading oil companies in cooperating with Azerbaijani oil industries (oil contracts) gave a new life to the development of the Azerbaijani oil industry. The Contract of the Century envisaged to produce 510 million tons of oil in 30 (1994-2014) years. 149 million tons of this oil was meant to pay off the expenditure and 361 million tons were meant as the profit oil. The increase in the oil price in the first stage of oil production resulted in less oil usage intended to pay off the expenditure than estimated. Subsequently, Azerbaijan has gained more profits. Even though 7 years are left until the termination of this contract, 436 million tons of oil has already been produced. We have gained 125.5 billion USD oil revenues so far since the day the Contract of the Century was signed. The New Contract of the Century (till 2050) envisages the joint production of 500 million tons of oil from Azeri-Chirag and Guneshli oil reserves. In line with the Contract of the Century, it became possible to bring the new technologies to the republic which resulted in discovering and operating the new oil reserves. Oil production reached 50 million tons from 12-14 million tons. Oil industry personnel have been trained to have new technological knowledge. World Economic Forum classifies three stages of economic development of countries:

- The first stage: Factor-Driven Economies
- The second stage: Efficiency-Driven Economies
- The third stage: Innovation-Driven Economies

According to the 2014-2015 report of the World Economic Forum, Azerbaijan falls in a group of countries that are transitioning from the first stage to the second stage, from factor-driven economies to the efficiency-driven economies. The formation of efficiency-driven economies certainly requires vast amount of funding. The revenues that the Azerbaijan State Oil Company can gain from the new contracts it signed with the world's leading oil companies may play a fundamental role as the source of funding. SOCAR has signed an important oil contracts with the world's leading oil companies (extending the contract by 2050) in order to continue the joint production in Azeri-Chirag and Guneshli oil reserves. It is predicted that 500 million tons of oil will be jointly produced and 40 million USD will be invested in our oil industry during these years. SOCAR share in the contract increased to 25% from 11.6%. Azerbaijani share in the profit oil will be 75%. It is envisaged that 500 million tons of oil will be produced during this period. Baku-Tbilisi-Ceyhan oil pipeline that accelerated the integration of Azerbaijan to Europe has been built, and the construction of diversified gas pipelines (our gas reserves are estimated to be 2.6 trillion cubic meters) is about to finish. All these processes brought a great amount of currency to the country. Prioritizing the investment in the physical capital for a long time may not meet the expectations. The investment in the physical capital substantially depends on the global market price of the product that was produced with the same equipment and technology. Drop in the global market price of these products turns into the indication of inefficiency of investing in physical capital.

Therefore, active mobilization of the other factors that can ensure the sustainable development is necessary. Like the other countries, the first stage in the development of Azerbaijani economy is characterized as the resource based economy. F.F. Mustafayev puts out: "Large-scale investments in the economy have ensured the fast development, particularly, in oil sector and stimulated the application of advanced technologies. However, growth rate of the other economies lagged behind the fast development in the oil sector. This, however, both brought about the structural deformation in the economy and resulted in the formation of uneven growth pace in terms of economic fields and areas. All this necessitates ensuring the sustainable development in the economy (Mustafayev, 2008 p.87)." According to the World Economic Forum's classification of stages in economic development, since the economy of Azerbaijan is characterized by a transition from the first stage of development to the second stage of development (factor-effectiveness), investment in the human capital is more promising than physical capital in this stage. Gradually realizing the idea of more prioritized investment in the human capital than physical capital is reflected in the State Strategy on Educational Development in the Republic of Azerbaijan and Strategic Road Map on National Economy Prospects of the Republic of Azerbaijan. Fulfillment of the duties posed in the educational development strategy and strategic road map will both shape the efficiency-driven economy and provide the effective conditions for the transition to establishing the basics of innovative development. The development of human capital is of special importance for the second and third stages (efficiency-driven and innovative development) of the economic development. Belarusian economist O.V. Domokur explains: ""The Old Economy" was characterized with the material possession of property. However, "The New Economy" is based on definitely distinctive factors of the development and becomes the main source of intellectual resource property" (Collective monograph, 2011 p.24). However, harmonizing the development of human capital with the other factors that characterize the sustainable development that are operation of natural resources, direction of investment, prioritizing scientific-technical development, personality development and institutional reforms will make it possible to ensure the international competition of the Republic of Azerbaijan which plays an important role in ensuring the sustainable development. Putting in operation the scientifically, technically and technologically unanalogous semi-submersible drilling rig named after Heydar Aliyev in the recent days (May 18, 2017) is the mere example for the development of human capital in our country. 80% of the engineering and technical personnel who built this rig that weighs 26 tons with a value of 1 billion USD were the Azerbaijani citizens. It can conduct drilling at a 1000-meter depth of water (During the Soviet periods we could conduct drilling at a 150-200-meter depth of water) and in general 12000-meter depth. One of the necessary requisitions to ensure the sustainable development in the country is to accelerate the socio-economic development of regions by favoring the inexhaustible resources. Even though agribusiness prevails in the regions, considering the characters of the regions, other forms of entrepreneurship, light industry, food industry, processing industry and other industries have been developed while these economic fields are based on inexhaustible resources. As a result of favoring the inexhaustible resources in ensuring the comprehensive development of regions of the Republic of Azerbaijan, territorial structure of the economy has been improved and favorable conditions were provided to develop all forms of entrepreneurship that is the basis of the economic development. Poverty level decreased in the country, and macroeconomic stability achieved thanks to the successful economic policy that was pursued in the recent years for phased eradication of poverty has played a significant role in shaping the sustainable development in our country. In spite of the location of agricultural entities, eliminating the difference among their economic opportunities provides a favorable condition for the utilization of the resources (the difference among the agricultural entities is reflected in their equipments, technologies and skilled workforce).

It is impossible to achieve the development of economic and social fields without ensuring sustainable development in all fields and increasing the efficiency of utilizing production potential. Even though the approaches to the sustainable development are distinct enough, it can most probably be characterized as the general aspect of distinctive viewpoints for indication of improving social life. So, the state programs approved to accelerate the socio-economic development of the regions have been aimed at solutions to the above-mentioned problems. The regional development has played a very significant role in ensuring the economic sustainability in the country for the recent 15 years (2003-2018). The fulfillment of the third state program – "The State Program on Socio-economic Development of the Regions of the Republic of Azerbaijan 2014-2018" is already about to finish. With the beginning of the post-oil era, regional development has been prioritized and reflected in the third state program (2014-2018). Approving the fourth state program is already on the agenda. Regional development is impossible without the strong support by the state. The financial source of the state support is (45 billion USD) allocation of the National Oil Foundation. Certain portion of this allocation is spent as the investment source for the regional development. Subsequently, the balance between the incomes and expenses of regional population and those of the population settled in big cities has been achieved, and serious advancement towards ensuring social justice is observed. The diversification of the economy plays an irreplaceable role in ensuring the sustainable development. The development of transport sector, one of the main sectors of national economy, keeps contributing to ensuring the sustainable development. Moreover, the formation of East-West and North-South railway transportation network plays an important role in ensuring the sustainable development. Baku-Tbilisi-Kars railway project is among the extremely significant projects that Azerbaijan fulfilled after restoring its independence. It is one of the indications that the influence of Azerbaijan increases all over the world. Combining the Trans-Europe and Trans-Asia railway networks, the project that is of extreme importance for Azerbaijan, was already fulfilled on October 30, 2017 and started carrying the freight. Transporting the freight from Central Asian Republics to Baku International Sea Trade Port through the sea and from there to Europe and the Gulf countries has a decisive role in determining the potential of freight transported via Azerbaijani Railway. The added value will be created during the establishment of Free Trade Zone in Baku International Sea Trade Port, formation of logistics center and loading the freights in railway transportation unloading them off the water vehicles. This will turn into one source of income of our country. The diversification of the economy will be deepened and particular share of railway in transport sector and the share of transport products and services in the GDP will increase as a whole. The investment in the transport sector will stimulate the development of fields that it serves, by creating the multiplicative effect. The diversification of foreign relations of Azerbaijan, benefitting from the cooperation with big Asian companies that were established recently and had extremely special prestige in the global market will not be ineffective in ensuring the sustainable development. The development of these regional markets is considered more promising for near future. As shown in the Strategic Road Map on the National Economy Prospect of the Republic of Azerbaijan, it is predicted that number of middle class members will increase from 3 billion to 5 billion in the upcoming five years (2023). Asian countries account for the 80% of this increase. The same development processes will be reflected at the level of companies as well. While the emerging markets cover about a quarter of world companies that currently have over 1 billion USD annual income, it is predicted that this share will increase by half by 2025. It is expected that 3000 new companies that will have total income of 1 billion USD will be established in Asia only. However, the growth of global trade volume on goods and services had further doubled the speed of GDP growth recently. Azerbaijan is able to benefit from this growth in line with its geographic location. Railway freight carrying will play an exceptional role in trilateral (The Russian Federation-The Republic of Azerbaijan-

The Islamic Republic of Iran) cooperation while fulfilling the increasing freight transport to the Asian market. The freight from the Russian Federation will enter the Alat junction (Azerbaijan) from Yalama station through Northern Caucasus Railway and then can be transported to the Islamic Republic of Iran and India, Oman and Gulf countries. Thus, "International North-South Transport Corridor" project will be realized as a result of combining the Russian Federation Northern Caucasus Railway with Astara – Rasht-Gazvin (Azerbaijan - The Islamic Republic of Iran) Railway. Thus, it will provide a favorable condition for the integration of "North-South" transport-information routes (The Russian Federation, The Republic of Azerbaijan, The Islamic Republic of Iran, India and Oman). The fulfillment of cooperation among the Russian Federation, the Republic of Azerbaijan and the Republic of Turkey in the field of railway freight is considered promising in terms of delivering freight to Mediterranean Sea and back. Priority to the following is considered expedient to ensure sustainable development in Azerbaijan: 1. Gradually preferring the oil revenues to finance the non-oil sector; 2. Providing favorable conditions for the formation of human capital as a result of the development in all forms of education by the government; 3. Achieving an increase in the particular share of non-oil products in GDP by stimulating regional development; 4. Promoting the use of renewable resources; 5. Achieving an increase in import-substituting products in the national economy; 6. Stimulating the export of non-oil products; 7. Achieving an effective rate of national economy sectors by improving the structure of the economy; 8. Developing the scheme to gradually return the financial resources to the state budget from the revenues of the economic sectors invested by the state budget. Extremely serious measures are taken to ensure the sustainable development in the Azerbaijani economy. So, during 9 months of 2018, the GDP increased 0,8%, non-oil sector 1%, industrial production 2%, non-oil industry 10,8%, agriculture 4,3%, non-oil export 14%, foreign currency reserves accounted for 45 billion USD, increasing 3 billion USD, while the non-oil sector accounted for 5.8 billion USD of 9 billion USD invested in the economy. Inflation grew 2.6% and population income 9.8% (5). All these are the necessary indications of ensuring the sustainable development in our country. Economical and effective use of financial resources assembled in Oil Foundation and other sources, and sparing a portion of these financial resources for the future generations as their share are among the sustainable development indications. The economic boundaries of our country will surpass its geographic boundaries as a result of harmonizing the development of human capital with the other factors that characterize the sustainable development that are operation of renewable natural resources, direction of investment, orientation to the scientific-technical development, personality development and institutional reforms, by ensuring the international competition of the Republic of Azerbaijan, gradually weakening the dependence on oil, stimulating non-oil sector development, expanding the production of import-substituting products, providing all favorable conditions to expand the export. Ensuring the sustainable development is already becoming the reality.

3. CONSLUSION

The existing level of economic development of Azerbaijan is characterized as a transition from the resource based economy to the efficiency-driven economy. The successful economic reforms pursued in the country have already provided favorable conditions for the development of not only oil sector, but also non-oil sector of the economy. The development of the traditional economic fields as well as science-intensive areas, substantial growth in the export of non-oil products, growth in the production of import-substituting products are playing crucial role in transition to the sustainable development. Dominance of non-oil sector in GDP compared to the oil sector (about 65%/35%), turning oil revenues to national savings, sparing the substantial portion of oil revenues in National Oil Foundation for the future generations (45 billion USD) can be considered to be among the main indicators of transition to the sustainable development.

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