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.

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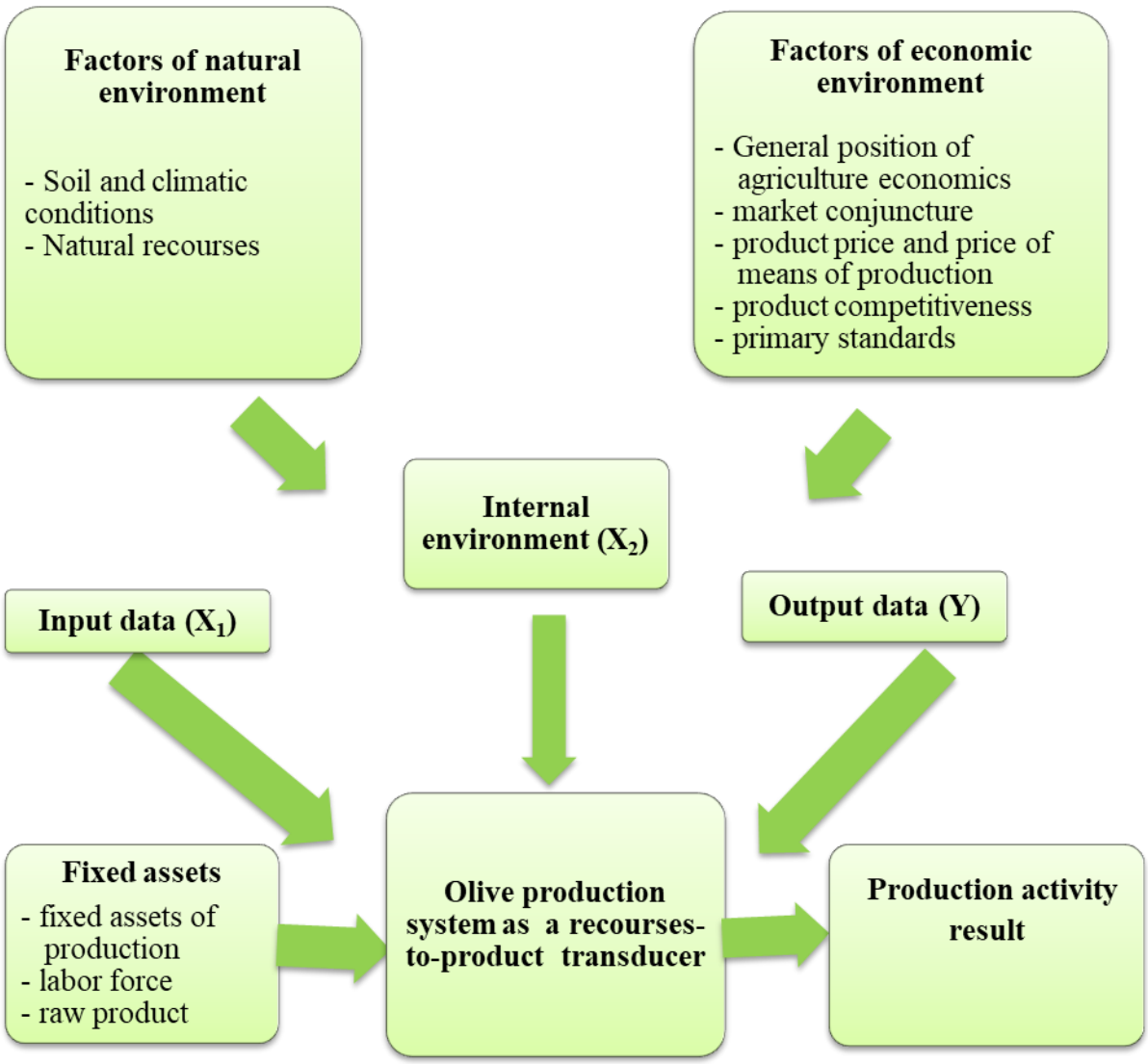

Figure 1: Optimal functioning of olive production flow chart

$$Y=F(X_1,X_2)$$

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 %.

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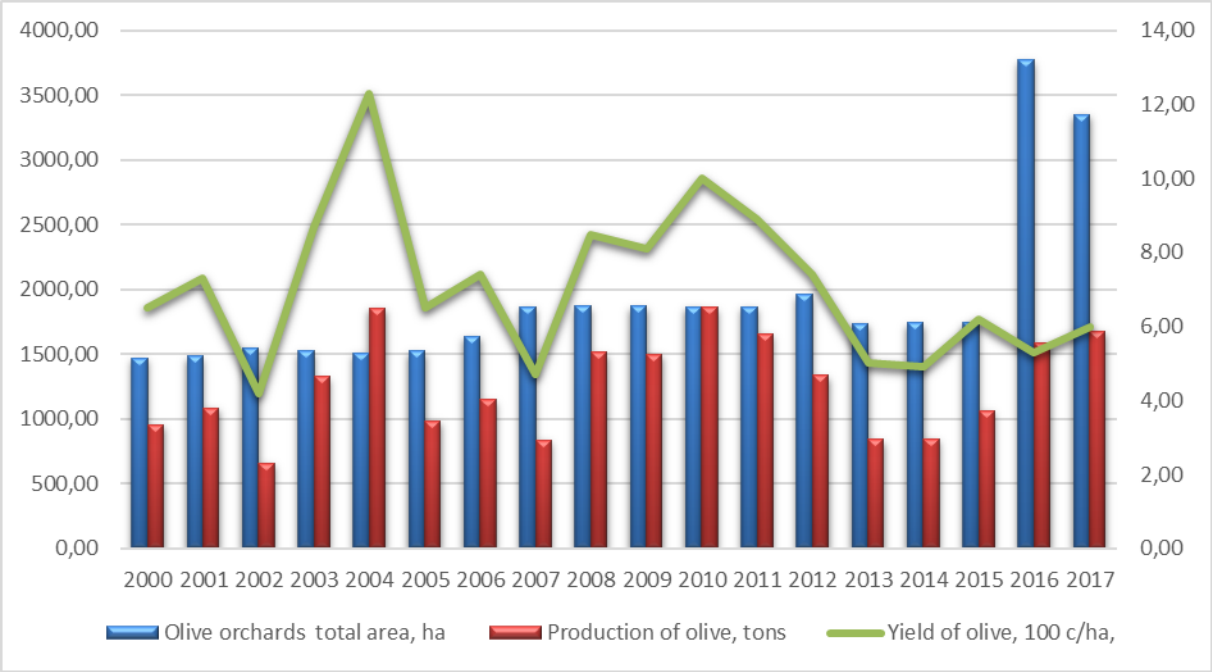

Figure 2: Olive statistics in Azerbaijan (self compiled on the base of Statistical Committee of the Republic of Azerbaijan)

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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