THE MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN AZERBAIJAN STATE UNIVERSITY OF ECONOMICS INTERNATIONAL GRADUATE AND DOCTORATE CENTER

**MASTER DISSERTATION** 

## ON THE TOPIC

## "INTERNET BANKING, ONLINE TRADE AND THEIR ROLE IN THE WORLD ECONOMY"

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## THE MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN AZERBAIJAN STATE UNIVERSITY OF ECONOMICS INTERNATIONAL GRADUATE AND DOCTORATE CENTER

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#### **MASTER DISSERTATION**

#### **ON THE TOPIC**

#### "INTERNET BANKING, ONLINE TRADE AND THEIR ROLE IN THE WORLD ECONOMY"

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#### İNTENRNET BANKÇILIQ, ONLAYN TİCARƏT VƏ ONLARIN DÜNYA İQTİSADİYYATINDA ROLU

#### Xülasə

Tədqiqatın aktuallığı: Hazırki dövrdə insanlar üçün vaxt itkisi risk edəbiləcəkləri hardasa, ən sonuncu haldır. Hansı ki, artıq başqa çıxış yolu qalmadıqda və məcbur olduqları halda insanlar yalnız bu faktorla razılaşırlar. Ona görə də sürətlə inkişaf edən iqtisadiyyatda insanlar (müştərilər) vaxt itkisi olmadan bütün əməliyyatları həyata keçirməyə çalışırlar. Və bu baxımdan hər bir halda bizim köməyimizə internet çatır. Təxminən, artıq bütün əməliyyatları internet üzərindən həyata keçirmək mümkündür. Məsələn, kommunal və mobil ödənişlərin onlayn ödənişi, onlayn formada məhsul və ya xidmət alışı, internet bankçılıq vasitəsilə hardasa, bütün bankçılıq xidmətlərindən istifadə və s.

Tədqiqatın məqsəd və vəzifələri: Elə bu aktuallığı nəzərə alaraq, tədqiqatla bağlı bu sahədə qərarlaşdım. Tədqiqatın əsas məqsədi isə hazırkı dövrdə Dünya iqtisadiyyatında internet bankçılıq və onlayn ticarətin nə dərəcədə yayıldığını və hansı şərtlər altında inkişaf etdiyini müəyyən etməkdir. Əlavə olaraq, qloballaşan iqtisadiyyatda Azərbaycan iqtisadiyyatında da sözügedən sahələrin potensialının necə olduğunu və perspektiv sahələrdən olub-olmadığını təyin etməkdir.

İstifadə olunmuş tədqiqat metodları: Dissertasiya işində tədqiqat metodu kimi sorğu və analiz metodundan istifadə olunmuşdur. Belə ki, qeyd olunan sahələrin daha çox hansı ölkələrdə istifadə olunduğunu analiz metodunun köməkliyi ilə, Azərbaycanda isə mövcud vəziyyətin qiymətləndirilməsi sorğu metodunun köməkliyi ilə tədqiq olunmuşdur.

Tədqiqatın informasiya bazası: Dissertasiya işinin hazırlanmasında informasiya bazası kimi ilkin və ikinci dərəcəli mənbələrdən, elmi-tədqiqat işlərindən, nəşr olunmuş jurnal və dərgilərdən, eləcə də uyğun internet mənbələrindən istifadə olunmuşdur.

Tədqiqatın məhdudiyyətləri: Hazırda Azərbaycanda qeyd olunan sahələrin inkişafının araşdırılması üçün məlumatların olmaması və ya statistik nəticələrin aşkarlanmaması və onlayn ticarətin vergilərdən azad olunmadığı üçün həmin şirkətlərin gizli fəaliyyət göstərməsidir.

Tədqiqatın nəticələri: Tədqiqatın nəticələrinə və qeyd olunan statistik göstəricilərə, əsasən, belə nəticəyə gələ bilərik ki, hazırki şərait bankları internet bankçılıq üzrə fəaliyyətini genişləndirməyə və mobil bankçılığın tətbiqinə sövq edir və müştərilərə daha yaxşı xidmətin göstərilməsi və satış həcminin artırılması yolunda ticarətlə məşğul olan şirkətlərin elektron ticarət sahəsinə ayrıca diqqət yetirməyə məcbur edir.

Nəticələrin elmi-praktiki əhəmiyyəti: Tədqiqat işində əldə edilmiş nəticələr ilə internet bankçılıqda bir sıra dəyişiklər edilərək istifadəsinin optimallaşdırılmasına və onlayn ticarətin Azərbaycanda da stimullaşdırılmasına nail ola bilərik. Həmin sahələrin inkişafı isə, fikrimcə, birbaşa iqtisadi inkişafa gətirib çıxaracaq.

Açar sözlər: İnternet bankçılıq, Onlayn ticarət, mobil bankçılıq, internet.

## **ABBREVIATIONS**

CBAR	Central Bank of Azerbaijan Republic
CIS	Commonwealth of Independent States
CIPS	Cryptographic Information Protection System
DSL	Digital Subscriber Line
ECS	Elastic Container Service
EDI	Electronic Data Interchange
EDS	Electronic Digital Signature
EFT	Electronic Funds Transfer
EMI	EquatedMonthly Installment
EU	European Union
FDIC	Federal Deposit Insurance Corporation
FTP	File Transfer Protocol
GDP	Gross Demostic Product
GUI	Graphical Users Interfaces
GUTA	Georgia Utility Training Academy
IMPS	Immediate Payment Service
IBAN	International Bank Account Number
IBEF	India Brand Equity Foundation
ID	Identification
ITR	Income Tax Return
NEFT	National Electronic Funds Transfer
NFC	Near-field Communication
PCI DSS	Payment Card Industry Data Security Standards
POS	Point Of Sale
RTGS	Real Time Gross Settlement
SIP	Session Initiation Protocol
SME	Small and Medium-sized Enterprises
TSI	Turkey Statistical Institute
USA	United States of America
VAT	Value Added Tax
WWW	World Wide Web

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#### **INTRODUCTION**

The actuality of the work. The scale of trade in the global world is expanding. Primarily widely used in Western countries, America and Japan, ecommerce is becoming increasingly popular in Azerbaijan. Electronic commerce, of course, is a new direction of trade, but in terms of certain principles, it adheres to traditional commercial methods and often uses the same techniques. Therefore, e-commerce is not an alternative to conventional trade in any sense, and it is an innovation that arises in parallel with the development of communication and information technologies.

Statement of Problem and level of learning. The most common problems of electronic commerce faced by online stores today are technology. Technological issues were the culprit of divers collapsing, and they are still the cause of many e-commerce failures and Dropshipping. Payment issues can be a significant obstacle during the holiday season and especially on Black Friday. They cost money to trade, but also kill them, reducing the number of transactions that can form payment gateways. Here are some ways to diminish the venture of payment manoeuvres:

- Addition of checked payment processors to e-commerce stores
- Monitoring the latest trends in fraud with payments

The purpose and missions of research. The main goal of the research is to determine at what level and under what conditions internet banking and online commerce have developed in the world economy at the present time. In addition, the global economy of Azerbaijan, which has a share in the world economy, is to determine the potential of these areas and their role as a sphere.

**Subject and Object of the study.** The subject of research is consumers and customers of e-commerce. Moreover, the objects of dissertation word are the banks, and online trade companies.

**Research methods.** Survey and analysis method were used as research methods in the dissertation work. Thus, it was studied with the help of the method of analysis in which countries the mentioned areas are more commonly used, and

the assessment of the current situation in Azerbaijan was investigated with the help of the survey method.

**Research database.** Primary and secondary sources such as information base; research works, published journals and journals, the official statistics and data of related government and non-governmental organizations, as well as suitable internet sources were used in the preparation of the research work.

**Limitations of research.** The boundaries of the research work are the lack of data of the areas currently mentioned in Azerbaijan to investigate the development or the lack of statistical results and the fact that online trading is not exempt from taxes, these companies operate in secret.

The practical importance. With the results obtained in the research work, we can achieve a number of changes in the use of internet banking and stimulation of online trade in Azerbaijan. The development of these areas, in my opinion, will lead to direct economic growth.

**The structure and length of the dissertation.** The master dissertation consists of Introduction, three Chapters, Conclusion, References and Appendix. The data obtained during the research were shown in the form of two tables, five graphs and four diagrams.

### Chapter I. Online trade, its role, current situation and effects in the world economy

# 1.1. History of online trade and how online trade affect the world economy

History of the e-commerce dates back to the invention of the ancient notion of trade, electricity, cables, computers, modems, and the Internet. E-commerce became conceivable for merchants in 1991 when the Web was opened to business use. Since that time, thousands of businesses have taken up residence at web sites and made plenty of sales over the web.

For the first time, the term e-commerce meant the process of execution of marketing matters electronically with the help of the leading technical pieces of equipment such as EDI, and EFT which gave a chance for users to exchange business information and do online purchases. The technique to use these technologies appeared in the late 1970s and allowed marketing companies and organizations to send financial acknowledgement documents online.

Though the Internet began to improve in fashionableness among the general public in 1994, it took roughly four years to promote the protection protocols (for example, HTTP) and DSL which allowed rapid entrance and a determined connection to the Internet. In 2000 a significant number of business organisations in the US and EU represented their services in the WWW. At this time, the definition of the word e-commerce has been changed. People began to determine the term e-commerce as the process of purchasing of available products and services over the Internet using reliable connections and automatic payment services. Although the dot-com failure in 2000 led to bankrupt results and many e-commerce corporations disappeared. The "brick and mortar" retailers recognized the benefits of electronic commerce and started to add such inclinations to their web sites. By the end of 2001, the most extraordinary form of e-commerce, Business-to-Business (B2B) model, had around \$700 billion in transactions.

According to all accessible data, e-commerce sales continued to grow in the next few years. One of the today's most modern amusements on the Internet is e-trade. It has much fascination in it — you can shop at your convenience, anytime,

and in your nightwears. Anyone can have their pages unobstructedly built to display their particular goods and services.

E-commerce has plenty of advantages over "brick and mortar" stores and mail order catalogues. Consumers can easily search through an extensive database of goods and services. They can see actual costs, build a request over several days and send it as a "wish list" assuming that someone will pay for their chosen goods and services. Customers can analyse prices with a click of the mouse and buy the selected product at the best values.

Online vendors, in their accomplishment, also get different advantages. The web and its search "generators" provide a way to be noticed by customers without costly promotion operations. Despite small online stores can enter global markets. Web technology also allows for tracking customer preferences and for delivering individually-tailored shopping.

History of e-commerce is unimaginable without Amazon and, which were among the first Internet organisations to allow electronic purchases. Thanks to their originators, we now have a considerable e-commerce sector and enjoy the buying and selling benefits of the Internet. Currently, there are five most massive and most popular universal Internet retailers: Amazon, Dell, Staples, Office Depot and Hewlett Packard. According to statistics, the most attractive classes of goods sold in the WWW are music, books, computers, building supplies and others.

Amazon.com is one of the most successful e-commerce partnerships and is situated in Seattle, Washington (USA). It was organised in 1994 by Jeff Bezos and was one of the first American e-commerce partnerships to sell stocks over the Internet. After the online trade failure, Amazon lost its rank as a reliable business model; however, in 2003, the company made its first yearly profit, which was the first step to further improvement.

At the origin, Amazon.com was counted as an online bookstore, but in time it enlarged a sort of goods by adding electronics, software, DVDs, video games, music CDs, MP3s, clothes, footwear, health commodities, and etc. The real name of the business was Cadabra.com, but quickly after it becomes popular in the Internet Bezos determined to rename his store "Amazon" after the world's most voluminous river. In 1999 Jeff Bezos was named as the Person of the Year by Time Magazine in the identification of the company's progress. Though the company's main office is in the USA, it has established separate websites in other economically-grown countries such as Amazon, Great Britain, Canada, France, Germany, Japan and China. The company encourages and commands retail websites for many important businesses including Marks & Spencer, Lacoste, NBA, sadion LLC, Bebe Stores, checkers and flat, Target, etc.

Amazon is one of the leading e-commerce enterprises to establish an associate marketing program, and today the company gets about 40% of its online sales from branches and third-party retailers who cultivate and sell goods on the web site. In 2008 Amazon inserted into the cinema and is currently sponsoring the film "The Stolen Child" with film agency 20th Century Fox.

According to the investigation attended in 2008, the domain Amazon.com attracted about 615 million buyers each year. The most popular article of the web site is the analysis system, the ability for users to submit their reviews and price any product on a grade scale from one to five stars. Amazon.com is also famous for its cleared and user-friendly advanced search tools which allow users to search for keywords in the entire text of numerous books and publications in the system.

One more firm which has added much to the process of e-commerce development is Dell, an American company placed in Texas, which reaches third in computer sales within the industry behind Hewlett-Packard, Acer and Dell.

Launched in 1994 as an immobile page, Dell.com has made rapid steps, and by the end of 1997 was the first corporation to post a million dollars in online sales. The company's innovative tactics of selling goods over the WWW with no retail plugs and no representatives have been approved by many customers and followed by a high number of e-commerce businesses. The crucial part of Dell's achievement is that Dell.com lets customers choose and control, i.e. guests can browse the site and congregate PCs piece by piece collecting every individual part based on their budget and demands. According to statistics, nearly half of the company's earnings come from the web site.

In 2007, Fortune journal ranked Dell as the thirty-fourth largest company in the Fortune 500 index and 8th on its anniversary Top 20 list of the most flourishing and admired companies in the USA in acceptance of the company's business model. (History of e-commerce – www.ecommerce-land.com)

History of e-commerce is a history of the latest, realistic world which is developing according to consumer advantages. It is a system which we are all construction together brick by brick, placing a secure base for the future generations.

The Internet has revolutionized the way that we shop. Because of the numerous benefits and advantages, more and more people today prefer buying anything online beyond the traditional style of going to markets.

Online shopping is supposed to be a very effective way of buying products through the internet, particularly during the holidays and permission seasons. It lets customers enjoy a broad category of products and items not only from a specialized store, but also from different storage that includes all classes of issues. Online shopping also provides clients with excellent client service, that also transpires online.

Many people around the world favour shop online and buy products from several icons and brands that they cannot find or are not accessible for purchase in their hometown countries. Today with the latest technology and the assistance of the internet, people from all around the world began to purchase items online by unostentatiously resting in their houses.

Obtaining items and products through the Web is a straightforward task to do. It is now performing a vital role in everybody's life, strangely older people, as well as people with a very unavailable life plan. It gives a very comfortable service for its shoppers by being able to save the item in the personal shopping bag, and purchase it later on.

#### **1.2.** The role of new marketing strategies in e-trade development

Trading through the Network only works for people, who have a valid credit card or a debit card. First, an online customer needs to create an individual account which involves a username and a password. It is very crucial for the consumer to save the account information in a protected place in order not to lose it, or let other people use it under their particular name. After creating an online account for the explicit site, the customer will start enjoying the wide variety of products and client that are possible online. The client will then click on the required thing in a way to add it to the individual shopping basket.

After doing all the earlier moves, the client should take into thoughtfulness the security of the specific site. To be guaranteed if the website is a protected place to share your credit card data, the buyer should view at the link in the browser. For safe shopping, the shopper should find the origin of the link starting with HTTPs and not HTTP. Having the website beginning with https means that this particular webpage will safely achieve the customer's credit card data.

After comparing the security of the webpage, the buyer should then be able to insert the credit or debit card information. For most online shopping websites, protection is considered an indispensable part, and several safety issues should be responded by the customer. Later the person is done with finishing the credit or debit card information, and the client is asked to make sure that the shopping is finished and waiting to be booked. After requesting the item or the product, the shopper needs to wait for several days to accept the specific booking. The shipment time depends on the place of the item, as well as the stored home location of the shopper. If someone has not tried online shopping still, it is deserving of experiencing it. Most probably, the practice will be extremely enjoyed.

What are the main reasons that so many people prefer online shopping and why is it so attractive? Below are my seven goals for buying online.

Service is the most important perk. Where more can you conveniently shop at night while in your nightwears? There are no plans to wait in or treasurers to track down to help you with your acquisitions, and you can do your shopping in some minutes. Online shops supply us the occasion to shop 24/7 and also reward us with a 'no pollution' shopping practice. There is no better place to buy formal products like e-books, which are convenient to you instantly, as soon as the amount goes through. Downloadable things purchased online eradicate the need for any sort of material at all, as well, which helps the environment and atmosphere!

Cheap transactions and better prices are possible online because outputs come to you direct from the producer or seller without including intermediaries. I addition, it's comfortable to match prices and find a better deal. Various online sites offer discount coupons, as well. Not only prices better, but also we can save on tax as well from online shops are only needed to collect a sales tax if they have a substantial location in our country. Factor in the avoided cost of gas and parking and you have saved yourself much cash!

The opportunities online are fantastic. We can find almost any brand or icon or item we are looking for. You can get in on the newest worldwide trends without wasting much money and time. You can buy from retailers in other components of the republic, country, or even world instead of being limited to your own geography. A far more attractive choice of colours and sizes than you will find regionally are at your transaction. Plus, the fund is much more productive, so we will always be able to find our body size and favourite colour. Some online shops even adopt orders for out-of-stock items and ship when they come in.

Comparing and examining products and their prices is so much more available online. If you're shopping for instruments, for example, you can find customer comments and product measurements for all the alternatives on the market, with links to the best values. We can research first-hand knowledge, grades, and reports for most goods and retailers.

If you are like me, you do not like crowds when you are shopping. Especially during holidays, festivals, or on weekends, they can be such a massive problem with transactions. Also, being smashed in the crowds of shoppers seldom makes us feel hurried or worried. You don't have to worry about the parking position. All of these difficulties can be avoided when we buy online. Frequently when we're out of purchasing, we end up buying goods or services that we don't actually need, all because managers pressure us or use their business skills to force us to do this shopping.

There is no "open" and "close" time. Anytime we can buy anything. So we can shop anytime and anywhere. Some peoples have not any time for shopping, because of their work. Also, after work, nearly all stores or shopping centres are closed. So we can easily do shopping online.

By the way, there are some main reasons why people do not believe in online shopping. So I decided to write also the disadvantages of online shopping. Seven disadvantages of online shopping, in my opinion:

1. Trucking problems and procrastination. Even the biggest and best transportation corporations and online retailers have bad days, so there is no way to secure that we will get our hands on our purchase in time unless we pick it up from a store. Items get missed, detoured, broken, or transported to the wrong address more often than we can think.

2. Risk of fraud. If you're shopping online, there's a more considerable risk of fraud: credit or debit card scams, phishing, hacking, identification theft, counterfeit products, malicious websites, and other perils are common.

3. But sometimes we can spend much more time on online shopping. Particularly if our job needs that we look at a computer all day, we might get strung out on all that screen time. Buying online can turn into a marathon of scrolling and agreeing down rabbit holes, and before we know it, we have been online for most of the day. The internet is a wonderful place to visit, but we probably don't want to remain there more.

4. We do not know precisely what we are getting. Unless we are personally similar to a brand or product, buying online necessitates a leap of belief, one that doesn't always end in our service. Sizes are frequently imprecise. We can not determine the form, material, fit, cut, quality, heft, or stability just by looking at a photo. Products that looked well, but might feel uncomfortable, or contemptible when you hold them in your hands.

5. Returns can be complicated. Some retailers make the process sprightly, but many make it extra difficult for you to return their commodities or get a refund. Many times, you can't get compensated for any shipping costs. Labelling, packaging, shipping, tracking, and filling out all the proper forms are a hassle we can avoid if we buy (and if we hand-select our merchandise, we won't need to return things so often).

6. No sales support. In a store, there's regularly someone to advise you but online, you are on your own. If you are confused or have problems, it is really too bad for you. You might have to make blind investments and mistakes you will regret later because there was not anybody to talk.

7. No aid for regional retailers. If everyone began making all their shopping online, all the regional stores would go out of enterprise. When all the markets in town are gone, we will have to drive more and more away to buy at a real store. Many people and countries have already experienced the negative and sometimes devastating impacts of e-commerce, which take away jobs and devastate local economies.

The world going digital, despite the number of e-commerce retailers are increasing the time by time. Thus, it is the real time to move up the sleeves and face the competition. E-commerce has transformed the way people shop. People who loved classical shopping are slipping towards online shopping, as the deals and offers are more charming. Let's see the statistics. According to the statistical report, in 2018, retail e-commerce sales worldwide reached up to 2842 billion US dollars, and estimated e-commerce revenues for 2019 can grow up to 3453 billion US dollars. Aren't these numbers enormous? So, if we have an e-commerce website, with the right strategy and planning, we can catch the same numbers in 2020. Let's plan out an incomparable e-commerce business marketing strategies to get the best out of the year 2019 (Source: Global e-commerce sales grow, www.digitalcommerce360.com).

Analyze our current position. The first thing to do is, we must see where our e-commerce storehouse stands right now. We must analyze our competitors and see what they are doing best. Measure ourselves with our best competitor, and try to find out why our competitors are doing better than us. And also we must analyze where we are winning, and where we are losing. By understanding our powers and faults, we can start fresh with a new business strategy. Once we are done with self-analysis, we will have exact data for the next step.

# **1.3.** Types of online trade and the effects of these species on economic integration

According to the US Census Bureau, the prevalence of the e-commerce market was only 9.1% of consumer sales by the end of the 4th quarter of 2017. Ten years ago, this figure was only 3.5%. Growth is not small at hand, but traditional trade still prevails. In the table, it seems that e-commerce is growing most rapidly. Over the past five years, we have seen that the volume of retail sales rises from 5.4% to 9.1%.





Source: Retail online sales in total volume economist.mit.edu

Still many years ago, the Internet network was mainly used to exchange mail and send files. However, in recent years, high technologies have turned the Internet into a vast infrastructure that includes all major information centres, world libraries, scientific and legal databases, many state and commercial organizations, exchanges and banks. Today, the Internet can be considered a huge market that can cover almost the entire population of the world. That is why consumers of software and hardware, trade and financial organizations are developing various types and methods of commercial activity on the Internet - e-commerce.

Today, under the term" e-commerce", it is primarily intended to provide goods and paid services through global information networks.

In a personal document of the US President's administration, it is worth remembering the definition of trade and the broader concept of "e-business", which is mentioned in the moratorium on the issuance of additional taxes on transactions concluded over the Internet. Here, any transaction carried out over a computer network (any, not just the Internet) and, as a result, the right to property or the right to use a product or service is intended to be transferred from one person to another. Electronic business refers to the process carried out by a commercial enterprise over a computer network.

Since the middle of the 1990 century, there has been a growth in online shopping venture around the world. After large companies producing computer equipment, traditional merchants began to enter the network. A large number of bookstores, CD and video cassette shops, wine shops occurred. Now almost any product can be purchased through the network.

From this point of view, e-commerce is the acceleration of many business processes in electronic form, since information is transmitted directly to the buyer, bypassing the stage of making a paper copy at each stage.

The term "electronic commerce" combines many different technologies, including EDI (Electronic Data Interchange), email, Internet, intranet (data exchange within the company), extranet (information exchange with the outside world). Thus, e-commerce can be described as doing business through the Internet.

The definition of e-commerce includes "electronic stores" that use other communication mediums, and not systems oriented to the Internet. At the same time, sales transactions that begin with data obtained from WWW, which use fax, telephone, etc., for data exchange, can be partially attributed to the trading class of electron. It should be noted that despite the fact that the technological base of e-commerce is WWW, other communication capabilities are also used in a number of systems. Thus, inquiries can also be sent by e-mail to the seller to clarify the parameters of the goods and make an order. You can transfer any information you can create on your computer in electronic form. For example, text files, spreadsheets, databases, images, orders, invoices, payments, data requests, price lists, multimedia data, and etc.

The primary condition of E-commerce - at least in the seller's system is the fully automatic processing of the order. Without this, it is possible to transfer property rights online fully. This statement has a legal effect. For example, such transactions in the US are exempt from sales tax. If a website that allows us to place an order on the internet was intended to receive payment in cash on delivery by courier, it would have to add an additional sales tax at that price. It is clear to me: the state is interested in making financial movements transparent and cashless, but at the same time in reducing the turnover of money in the economy faster and cash transactions. It is clear from this that companies engaged in electronic commerce to serve their customers to reach a certain level with the aim of simplifying business processes. The transition to Online mode only leads to a reduction in costs in companies where management systems are automated.

The emergence of the internet made e-commerce cheaper due to the low cost of data transmission and qualitatively led to the development of new forms of it. A critical point of these forms is the "business-business" and "business-consumer" forms, which are in contact with the web browser but are not used or used by EDI technologies. E-commerce systems allow the buyer not to contact the seller, not to waste time shopping and get more information about the product. The seller is able to react more quickly to the change in demand, analyze the behaviour of buyers, save on the number of employees and free from space rent. The main reasons for the seller are the expansion of the buyer's coverage, and the list includes companies that cannot apply EDI for its price, the possibility of using information technologies to conduct sales with the buyer, that is, the business user access to the market and the elimination of possible intermediaries in trade.

Electron trading is any business activity that uses the capabilities of global information networks to generate revenue to change internal and external links.

E-commerce is an essential element of e-business. Electronic commerce means any form of business agreement in which the contact of the parties is in electronic form instead of physical contact and, as a result, the right to property and the right to use the goods pass from one person to another.

Electron trade can be divided into the following categories:

- Business-to-Business (B2B)
- Business-to-Consumer (B2C)
- ✤ Consumer-to-Consumer (C2C)
- ✤ Consumer-to-Business (C2B).
- Business-to-Administration (B2A)
- Consumer-to-Administration (C2A)

This type of electronic commerce covers all electronic transactions related to products or services carried out between companies; that is, companies sell their products to other companies on the internet. They are engaged in sales to consumers.

In electronic commerce between businesses to consumers, companies sell their goods on the internet to consumers who are end users of their products or services. Generally speaking, B2C e-commerce Internet shops offer open access to any visitor and user.

Consumer to consumer type e-commerce (C2C) covers all electronic transactions related to goods or services carried out between consumers. As a rule, these transactions are carried out through a third party, which provides an online platform on which operations are carried out virtually. E-trade platform is a perfect example for consumers to sell the goods and services to other consumers.

The traditional meaning of the exchange of goods in C2B is a complete transformation. Here, consumers offer their products or services on the internet, and companies place their offers. Then, consumers review and choose the companies whose prices correspond to their expectations.

This part of electronic commerce covers all transactions carried out online between companies and government agencies. This, in particular, tax-budget, Social Protection, Employment, normative-legal documents and registration, etc.it is an area that covers a large number and diversity of services in such areas as.

The "Consumer-to-Administration " model covers all electronic transactions between individuals and government agencies.

Example:

- ✓ Education-dissemination of education, distance education, etc.
- ✓ Social Security-dissemination of information, making payments, etc.
- ✓ Taxes Here, including the issuance of tax returns, payments, and other fees.

Therapeutic purposes - information about diseases and payment of medical services, etc., points. Information about illnesses and payment of health services, etc.

To date, it is appropriate to study a broader range of e-commerce. Recently, the concept of "electronic stores" has become increasingly popular abroad." Electronic store "is a form of a website in which the catalogue of goods, the" basket " of the buyer, in which the goods are collected, the method of payment is the provision of a credit card number through the internet network or by phone. Sending of products to customers is carried out either by email or with email channels, and when buying electronic goods (for example, software) - directly over the internet or through e-mail channels.

A new direction of E-commerce is to require a symbolic cost from the consumer for the rental of various software or the use of any component of the software collection. The development of this type of business has evolved with the widespread use of Java technologies, which involves the direct download of software components necessary to solve the problem from the web server.

The traditional service of the e-commerce industry is data sales, for example, subscription to an on-line operating database. This service is already quite familiar in Russia, for example," Garant-Park"," Russia-On-Line", etc.

Finally, today, a new type of e - commerce-electronic banking is beginning to spread. Among the main advantages of electronic banks, we can note that the organization of such a bank has a relatively low cost (there is no need to rent a prestigious building, there is no need to store valuables) and a wide range of customers (the potential client of an electronic bank is almost any Internet user). Therefore, e-banking can provide customers with a broader range of banking and other services at more favourable terms and at a lower price than traditional banking. Naturally, e-banking has its own security and Electronic Information Protection Systems, individual cards - random password generators synchronized with the password on the bank server. This allows you to create a unique password every time the customer enters the bank server. Another less expensive approach involves the use of personal unlock cards. To further increase the degree of protection, it is also possible to use the user's biometric identification tools.

Digitization has played a significant impact on economic development and its potential for generating employment opportunities.

Digitalization is being a key to the economy in the present world; it is crucial to combine the economy by creating online markets. It is found in great economies internet accounts for about 3.4% of GDP on average along with stable employment generation.

During the global downturn, 6 million jobs were created in the world by the digitization effects and 94% were from developing economies and 6% from North America countries and Western Europe countries.

This demonstrates the potential of digitization in generating employment chances. Research shows that emerging economies have more possibilities of gaining e-commerce advantages than developed economies as emerging economies have a more complete scope of inefficiency and production growth has been realized.

In Asia, increasing internet diffusion, latest technology adoption and great sale of technical gadgets like smartphones, tablets, and etc., have led to an attractive online client base and unprecedented increase of e-commerce. National policies regarding telecommunication, financial services and distribution and delivery would provide inputs for e-commerce trade-related agreements. Researches show that three jobs are created on the internet for every job lost for the web.

E-Commerce is the most important application of new communication technology. Producers, merchants and consumers can now reach the market more quickly and get more data than they could ever before. The electronic commerce has entered the businesses in various ways. The importance of e-commerce depends on the evaluation. To evaluate similar data on e-commerce is important because it is not readily available. The accessible data are collected by various agencies using various definitions and methodologies used by the collecting entity. Without reliable data, policy makers, decision makers and business, people are unable to make decisions that reflect the changes brought about by e-commerce. The use of web site enlarges the potential global market and sales revenue, products, potential new customers, services and geographical area. E-commerce has also reduced the transaction costs, allied with purchase, sales, operating, holding inventory and financial losses. The non-financial benefits such as performances of non-financial assets like human resource and timeliness, quality of service, clients satisfaction are some of the secondary effects. By using the relevant and accurate data on e-commerce the policy makers and researchers try to analyze the impact of e-commerce on the labour market, market structures and functioning, changes in the distribution of goods and services and changes in global competition. It enables them to take well-framed decisions about the policies and investments in e-commerce related sectors.

E-commerce sales global hit an estimated \$27.3 trillion in 2020 and are likely to have grown since today.

The internet makes customers and merchants more visible and accessible to each other regionally and globally markets. The international bit is really fascinating. The chance to connect immediately and efficiently to multiple shops can be a benefit for smaller businesses and a great attraction for consumers. Without e-commerce, establishing a physical presence in various markets can be costly, while consumer demand might also not always be apparent. Review after survey has shown that the amount one limitation to buying and selling across borders is information – precisely what the internet excels at.



Graph 2. Retail e-commerce sales worldwide from 2014 to 2021 (in billion U.S. dollars)

#### Source: Retail e-commerce sales worldwide from 2014 to 2021 – www.statista.com

#### Chapter II. Place and role of Internet banking in our modern life, problems, solutions, and perspectives

## 2.1. Advantages and disadvantages of internet banking, and its contemporary issues and their solutions

Internet Banking direct to the banking services provided by banks over the internet. Some of these services include paying checks, reserves transfer, viewing account statement, and etc. Banks also pass their newest products and services overhead the internet. Internet banking is made through a computer system or related devices that can connect to the banking site with the network. Today, we can also use e-banking on our mobile phones using a Wi-Fi or 3G, 4G network. With the rest of the availability of cyber restaurants in the cities and countries, it has become very prevalent.

Banking is nowadays no more restricted in going the bank in anybody for various purposes like putting money as deposits and withdrawing money, asking for account statement, stop payment, and etc. We can do all these processes and many more using the online services offered by the banks. We can also control our account actions and balance all the time. Now getting passbooks updated to know the total account balance is a matter of past.

As commercialization of the network developed in the early 1990 century, long-established banks began to investigate methods of performing limited online services to diminish operating expenses. The resolution of these early efforts was the leader of many banks to increase their internet appearance with enhanced websites that starred the capacity to open new accounts, download structures and process credit applications.

The next step of improvement was the arrival of Internet-only banks that presented online banking and other commercial services without internet of branch buildings. These so-called "practical" or "straight" banks could pass savings in labour and over expenses on to their clients by allowing higher interest rates on deposit accounts, lower loan percentage and reduced service fees and commissions. The first fully-internet bank insured by the FDIC. Founded in Atlanta, and it began all online transactions on October 18, 1995. While it was not very successful before it was purchased out three years later, it proved the practicability of the online bank concept.

In our modern life there are some benefits or advantages of Online Banking:

Online banking systems are open for business anywhere and anytime; needs an internet connection, and they are accessible whenever you need. If internet service is not possible, customer service is typically provided around the clock with smartphones. Real-time account statement and balance and also any information about accounts are accessible at the touch of a few buttons. This makes the banking system work faster, more comfortable, more productive and even more effective because clients can always control their account pieces of information.

The lack of significant foundation and over costs allow banks to pay higher interest rates on savings and deposits and also charge lower credit and loan rates. Some banks offer no-penalty CDs for premature withdrawal. Some accounts can be opened without any deposits and any balance or commissions.

Direct banks usually have more reliable online services that offer a full range of features that can not be found on traditional banks' websites. These involve effective budgeting and forecasting mechanisms, financial preparation capabilities, investment analysis tools, credit calculators and currency trading platforms. They also offer free online payment accounts, online tax forms, and advance payment taxes.

Internet Banking now includes mobile capabilities. In order to expand and improve these capabilities on smartphones and other mobile devices, new applications are continually being created.

Accounts can be automatically funded from traditional bank accounts by electronic transfer. Most direct banks offer unlimited money for foreign financial institutions, including without any expense. They also accept direct deposit and withdrawals, such as salary deposits and auto billing. Online statements are accessible to set up and do not require more information than a traditional bank account. Many offer the opportunity to enter your data on the internet or download forms and their mail. If you face a problem, you have the chance to call or write directly to the bank. One of the benefits of using online checks is that the recipient's data is stored, which excludes the need for re-entering the next test for the same fee.

Internet banking is also ecologically clean. Automatic washers do not require any paper, reduce the movement of the vessel and are virtually free from pollution. They also eliminate the need for building and office equipment.

Moreover, there are some advantages to banks. These includes:

- > One way of attracting more customers is to use their services.
- Increasing the bank's reputation around the world is well known by many people.
- It doesn't need to employ lots of suffering or bankers to deal with customers directly.
- Banks can deal simply with their branches all over the world with one network.

The online banking business has its drawbacks and concerns.

These include:

Traditional banking allows you to develop personal relationships with this bank. Dating with people in your local branch can be an advantage when you need a loan or an exceptional service that is not generally offered to the public. The Bank manager has some freedom of movement in changing the terms of your account if your conditions replace. They can advise you to explain problems such as cancellation of the fee or service fee.

Sometimes clients go to the banks' branches who are required to complete complex operations and solve complex problems. The traditional bank can hold meetings and invite experts to address the concrete problem. In addition, international sales can be more complicated (or impossible) with some direct banks. If you regularly make cash, then the traditional bank with a travel window can be more practical and efficient. Another potential shortcoming is directly related to the fact that most banks do not have their own ATMs. If the Internet bank does not have a network alliance with another bank, you will pay for using the ATM.

Some direct banks cannot offer all-around financial services such as insurance and brokerage accounts offered by traditional banks. Traditional banks sometimes provide dedicated services to loyal customers, such as discounted rates and no additional cost of investment advice.

In addition, ordinary services such as notarized and bank Signature guarantee are not available on the internet. These services are essential for many financial and legal transactions.

Primary banks are subject to the alike laws and regulations as traditional banks, and accounts are protected by FDIC. Sophisticated encryption software is designed to defend your account details, but no system is perfect. Reports can be exposed to phishing, hacker attacks, malware and other unauthorized activity. However, one of the consequences of online banking is that because your account balance is available, you will probably find a security breach faster.

The most significant banks now make scanned examples of cleared checks available online, which helps to avoid and identify check fraud. This allows you to verify that all the tests are signed by you and the dollar amounts have not been changed. Timely detection of discrepancies can be reported and investigated immediately.

Theft of personal data is a severe problem, but some internet banks take this risk more seriously than others. Before opening an online account, carefully study the security and protection policy of the bank to make sure it meets your expectations.

Disadvantages of e-banking for Banks:

- Banks may require a significant amount of money to establish a website with attractive features.
- They may lose their information if the network is damaged with other branches.

Hacking and viruses will cause problems for online banking, which could break and damage the information.

Regarding the profitability of Internet banking, the bankers themselves are very pessimistic. Only 2.4% of them are firmly convinced of the profitability of this area, 27% find it challenging to answer, 31% of bankers are sure that a direction that is not profitable at the moment will become useful soon, and 39% do not even expect it.

Now we will take a closer look at the problems associated with Internet banking. There are already a lot of such problems. Some of them are related to the specifics of banking, partly due to the peculiarity of the Internet.

Not so long ago, banks could relatively quietly ignore the low, but still existing demand of the population for Internet banking services. So until recently, this could not significantly affect their market position. However, the situation is changing: the middle class in Russia is feeling more and more confident; consumption of both consumer goods and durable goods is growing; the demand for paid services is increasing. All this already now makes consumers more often turn to the services of banks and not only. Those niches in which banks are not active enough (payments without opening accounts, prepaid financial products, Internet payments) are occupied by more mobile commercial companies very quickly. Thus, according to the vice-president of GUTA-Bank, one of the essential problems that domestic banks need to solve today is "the weak development of Internet banking in the retail banking sector against the background of increasing competition from non-banking Internet payment systems.

If we consider the quantitative indicators of the activities of Russian banks promoting the Internet service for individuals, they have not undergone significant changes. According to the most optimistic estimates, today the total number of clients serviced through the Internet - individuals, is about 20 thousand. Financial indicators of how customers use Internet services look better. Over the past year, the total monthly turnover on the accounts of customers using Internet banking systems has grown 3-4 times. At the same time, the average monthly increase in trade turnover has recently reached 10-12%.

The development and implementation of software systems, except for the most primitive ones, always requires considerable organisational efforts. In the case of distributed complexes, the volume of such efforts increases many times, and for payment systems, it becomes enormous, since each of them adds coordination to all its members or even provides conditions for joint development to the list of necessary organisational measures. Also, the involvement of new participants in the payment system is associated with the need for professional action. There are problems in the field of contacts with the authorities.

The solution to these problematic tasks requires significant costs. According to the pioneers of Internet banking - representatives of GUTA-Bank and Avtobank, their already long-running payment complexes will become repayable only in 2-3 years while maintaining the dynamics of growth in the number of customers and an increase in the turnover of funds.

The issue of payback is the most painful for all projects related to the global Internet. At the same time, there are quite measurable advantages that a bank can get if it implements an Internet solution in good faith. This is, first of all, savings on servicing private clients by automating this process. According to an overall assessment, conducting an operation using human labour costs about one dollar (this estimate also contains the possibility of error). When performing operations via the Internet, their cost drops to a dozen cents, and on a large scale (starting from 50 thousand people), which large banks ultimately expect to reach, and to a few cents.

It is worth noting, however, that severe savings and significant project efficiency can be achieved if we follow an integrated approach to the development of Internet banking. Among the complex services, home banking, online trading, corporate banking and electronic trading platforms, electronic stores and payment systems for online trading are possible. Thus, it can be argued that the Internet project of the bank pays off due to indirect factors: increase in assets, attract new customers, increase in turnover and transaction fees, i.e. due to factors manifested in other divisions of the bank.

A severe problem in the development and implementation of an Internet project of a bank is a personal problem. The quality and efficiency of solving any problem directly depend on the qualifications of the specialists who undertake it. For the development and maintenance of Internet banking systems, programmers are needed today (not only working in the field of Internet technologies), system administrators, web designers, web programmers, computer and communication protection experts, economists, marketers, lawyers. All of them should be well aware of the world of the Internet, which is now far from always achievable. It is tough, for example, to find a lawyer who is familiar with electronic communications. The same applies to network security professionals.

There are also psychological problems in the way of Internet banking. There are two extreme points of view among bankers. Those who adhere to the first of them consider: "The Internet is dangerous, and we do not need it." The position of the latter is the opposite: "The Internet is extremely promising, and it is necessary to develop the Internet business for whatever it takes." Both radical judgments only reflect the different stages that people usually go through when starting to get acquainted with the Internet. Thus, the absolute denial of the suitability of its use is characteristic of those who are not well acquainted with the global Internet. Fanatical faith is peculiar to those who have just learned about the opening horizons. The consequence of the first of the errors may be the technological lag of the bank, and the result of the second is the expenditure of significant funds without real returns.

There is the only right way to develop a more professional attitude to the Internet – we need to continue to master it.

The situation with society as a whole is more complicated. The live audience of the network in Russia is still small: about 800 thousand - 1 million people and almost all of it is concentrated in several large cities (Monitoring.Ru). The majority either remains in the stage of the first delusion or does not think at all about the Internet. Of course, the situation is gradually changing, but still too slowly, for which there are many reasons, including economic ones. Nevertheless, the fact that the most socially active people use the banking system and work on the Internet gives us hope that their number will be sufficient at least initially, in the early stages of the deployment of Internet banking systems. There is a possibility that the Internet will raise interest in banking services. According to surveys, the overwhelming majority of bankers believe that the convenience of Internet services will become an essential factor in attracting clients' funds to banks shortly.

As for psychological difficulties, then they should be counted fear of losing their money in the network. Internet banking is not at all beneficial for numerous publications about mass hacks and thefts from computer systems. However, this problem has more social and legal roots than technical or some other.

Besides, there are also severe technical difficulties and problems associated with an EDS.

There are several major technical issues:

First, the implementation. In addition to the usual difficulties, those related to the choice of tools and software technology are added.

Secondly, the creation of the desired configuration. The difficulty lies in the massive variety of system software for Internet complexes. This also includes the problem of choosing a web server, proxy server, firewall, mail server, FTP server, etc. etc. As a result, personnel and financial approaches usually begin to dominate - preference is given to systems that are either familiar to the automation department or will be easier to learn, their service specialists will cost the bank less.

Third, protection. Serious experts have already refused to discuss it in the technical aspect. Participants in one of the seminars R-Style Software Lab. rated the security issue as noteworthy, but no more than any other.

As for the problems associated with EDS, it should be noted that the State Council adopted the Law on Electronic Digital Signature on first reading, the controversy around which has not subsided since the very early versions of the project appeared. If no one disputes the necessity of the law, then its contents raise several questions. Thus, the number of mandatory requisites of a public key certificate (Article 6, paragraph 1 of the draft Law) includes the requirement obliging to specify the legal relations within which this certificate is used. From this, it follows that the client will either have to generate a separate key for each type of relationship and issue a licence in the corresponding centre or try to immediately envisage all the relations he needs and list them in the certificate. At the same time, he is still not guaranteed from the situation when, in the course of his life activity, a new type of legal relationship arises, which is not in the certificate. It should also be noted that almost any contract reflects a whole range of different legal relations, and not all of them are obvious to the end user. In practice, it will be necessary to carry out a legal analysis of the document before forming the EDS, which, you see, is somewhat tricky. Otherwise, there are plenty of opportunities for abuse by any party.

Along with other problems of expanding the Internet banking market, two reasons insufficient supply of services and security problems are undoubtedly crucial to the current stage of its development in Russia. It remains to hope that domestic banks will finally understand that the prospects for the growth of the online services market are entirely in their hands and depend on their initiative (or on the effort of their competitors).

There is an image element in Internet banking. It lies in the fact that when a critical mass of banks that offer such a service is recruited, those who do not provide such a service begin to lose. They lose customers, and this is a net loss. The share of banks providing Internet banking services is meagre now, but among them are Avtobank, GUTA Bank, Menatep-SPb. It turns out that the sector of large banks that work with the population is already quite "internetized", so the absence of this service means (although for the time being mostly image-oriented), but already a loss.

Consider now the prospects of Internet banking. If we talk about the opportunities, it is impossible not to note the forecasts of Western analysts. For

example, a study by Cap Gemini / Ernst & Young says that by 2003, the share of banking operations performed via the Internet in Europe may increase to 25%. A similar forecast for the United States is much more modest - only 12%.

In Russia, by the time, this figure is likely to be closer to the current level of development of Western markets - 3-4% of financial transactions will be accounted for purchases made via the Internet (according to Internet Marketing). However, this is only an average figure. Along with this, there will be quite a lot of banks, both national and regional, the level of "internetization" of operations of which will be 30% or more.

I want to mention the current trends in the development of Internet banking in Russia. First, the activity has increased, and the role of developers of specialised equipment and software for the needs of Internet banking has increased: both domestic companies specialising in banking automation and western developers entering our market. For example, the Russian company BIFIT developed the iBank system, which today is already operated in 23 Russian banks. The number of users of the new service in each of these banks ranges from 30 to 250 legal entities.

Secondly, Internet banking is developing either in a complex or in parallel with the development by the same banks of the means of organising e-commerce - payment and trading Internet systems. Examples of such activities: a joint project of Avtobank and IT Company — the Internet payment system EIIT-Kart, the CyberPlat payment system; the project of the bank "BIN" and the company "IT-T" - the system "Kortis", the plan of the bank "Menatep-SPb". To this should be joined the fact that in parallel with Internet banking services in banks and companies close to them, which often belong to the same financial group, other Internet services are actively developing: Internet trading and internet insurance.

Thirdly, the introduction of banks at the same time as Internet banking and other areas of remote banking service: telephone banking, PC banking and the novelty of this year - WAP banking (a joint project of GUTA Bank and MTS) is expanding. At the same time, various forms of remote services do not compete with each other, but, on the contrary, in many respects complement each other, providing customers with a wide choice of channels for accessing their bank accounts.

Today, there is each reason to believe that shortly, the Azerbaijan Internet banking market will face severe progressive changes, both quantitative and qualitative. High hopes are inspired by the Duma's adoption of the Law "Electronic Digital Signature" and the expected improvement in the legislative climate that determines relations in the field of electronic services. The very fact of the existence of such a law should produce a health effect. It is no secret that it is often because of the lack of a developed legal framework (not everyone was satisfied with the presence of one article of the Civil Code, equalising EDS with a handwritten signature), many banks did not hurry with the introduction and use of Internet banking systems. The positive psychological impact of adopting a law will be even more important than legal consequences.

Next year, the extensive development of the corporate Internet banking market will continue. However, the active development of Internet banking will be possible only if the banks themselves begin to promote Internet banking services to their customers actively. The main problem of the market is poor awareness of banks' clients about the possibilities of remote servicing via Internet banking; many banks do not show any activity in this direction, limited to only a message about the possibility of providing this service, posted in the customer hall. Of course, the efforts of some development companies to support high rates of the market development will soon not be enough. Today, various forms of remote banking services in Russia are used, according to different estimates, from 20 to 30% of clients, which, in general, is not very small. However, the overwhelming majority of customers continue, by inertia, to carry or carry payment orders to banks. This is where the main market development potential lies.

Soon, significant changes should occur in the segment of personal Internet banking. The growth of sufficient demand from the population, the intensification of non-banking competition for savings and payments to individuals, and the entry of several large banks with a full-fledged Internet banking service to the market will increase the activity of other banks in this segment of their business. An exact reason for the growth of the market should be the release of leading developers of Internet banking solutions focused exclusively on individuals.

The development of Internet banking technologies will continue. This development will advance, first of all, in two directions: firstly, in expanding the functionality of current solutions, adding promising services (WAP, SMS), creating trading platforms and industry-wide online auctions; secondly, in the development of new platforms, first of all PDAs, digital communicators (smartphones), mobile phones.

High hopes are being placed on solving the problem associated with the contradiction between the online document delivery process between the client and the bank and the offline payment process in the bank and between banks. With the transfer of the RCC to the online payment system, the interest of customers in Internet banking will increase the main thing is to see the money on the payee's account in time.

However, the primary trend in the development of the market soon should be a change in the strategic attitudes of bankers concerning Internet banking, which marks the transition from the "to be" strategy to the "effective use" strategy. Today it is not enough to have in the banking portfolio just any service that can be presented as Internet banking. Clients - both corporate and private - need highquality Internet banking services (different for different segments), providing a full field of financial management services with the Internet. So this will require banks to at least change their position towards e-banking.

On the other hand, its practical use is impossible without a clear economic elaboration of projects for the introduction and further promotion of Internet services. Here, a proper understanding of the role and place of Internet banking for a particular bank is of particular importance. Internet banking is a virtual automated operating room of a bank (and not another additional service) that can bring real profit. Therefore, it is vital for the bank to have a development strategy for its virtual front office. It is essential to include a plan for the development of
remote banking services as one of the critical lines of business development for the bank. Moreover, it will be justified - in the near future, Internet banking will become one of the vital services, the quality and terms of service of which will be decisive for customers when making decisions about choosing a bank.

In the West, the banking Internet service, being one of the most dynamic ecommerce segments, continues to grow at a rapid step along with the growing number of Internet users, whose share in the population of developed Western countries already averages over 40%. At the same time, some Western European countries are ahead of the recognised leaders from North America in terms of mastering the global Internet: Norway - 48% of the population, USA - 45%, Sweden - 42%, Canada - 41%, Finland - 38%, Denmark - 35 %, United Kingdom -25% (according to data at the beginning of 2000).

Simultaneously with the increase in the Internet population, the number of customers carrying out banking operations through the Internet is also growing. Another important indicator of market development is the number of banks developing Internet banking. Thus, in the summer of 2000, already 71 of the 100 largest US banks provided their clients with Internet service, including 9 out of 10 of the largest, among which are leaders of the American banking business: Citicorp Bank of America, Chase, Bank One, First Union, Wells Fargo. However, European banks are not only not lagging behind their American colleagues in terms of the number of banks and the turnover in this area, but also bypass them. So, according to Cap Gemini / Ernst & Young, the Europeans are finally ahead of their American competitors in the share of banking operations performed using the Internet. In Europe, 4% of all banking transactions are conducted via the Internet, and in the US - 3% (data obtained from 125 banks from 21 countries were processed during the study). All in all, there are more than 1,500 banks in the world today that have Internet banking services in their arsenal.

In Russia, over the past year, Internet banking has become increasingly common. Today, not one or two, but about 40 banks offer various forms of remote banking services using the Internet. A list of Russian banks with a list and description of online banking services provided to customers can be found on the Financial Internet Services in Russia website. At the same time, more than half of banks prefer to develop Internet banking services exclusively for legal entities, considering the positioning on customers - individuals as unjustified at present. The reason for this selective approach lies in the "cool" relations between banks and private clients that have developed since 1998. In general, the data show that from trying to test new services, clients of domestic banks are increasingly moving to regular use of Internet services. However, this transition occurs only under the condition that these services meet individual requirements and customer expectations. Thus, according to the Internet Marketing Company, the leading banks are actively servicing individuals with the Internet, Avtobank and GUTA Bank, have excellent performance indicators of their Internet banking systems.

After analysing the development of Internet banking, we can single out the three most important characteristics of Internet banking systems that are necessary for customers:

1) functionality (available to clients of the operation);

2) usability of the order (user interface);

3) ensuring the security of the storage and transmission of financial information.

The importance of these particular characteristics is confirmed by the results of numerous user surveys (not only Western but also domestic) and a detailed analysis of the specialists developing Internet banking systems.

The more extensive the functionality of the Internet banking system, i.e. the more services available to bank customers via the Internet, the more complete and in demand is such a system. Indeed, the conscious or forced restriction of the functionality of the banking Internet service dramatically reduces the attractiveness of such systems, because for some of the banking services the client still has to go to the bank. Therefore, to make Internet banking systems competitive, banks are trying to endow them with almost the whole range of services that are available to customers at the bank's office. Among these services are operations with funds in

one's accounts (statements, transfers on one's reports, work with plastic cards), investment of funds (deposits, securities), settlements with counterparties (one-time and periodical payments), etc.

The convenience of a particular Internet banking system is usually expressed in the following:

- how user-friendly is the user interface of the system;
- how clear and straightforward the installation and configuration of the software is;
- how convenient and honest are the usual methods of performing operations in the system for obtaining various banking services, especially for novice users?

It is this characteristic of Internet banking - ease of use - is one of the weaknesses of most (with rare exceptions) domestic systems. It is essential to understand that, in addition to programmers, a team of information system designers, marketers, psychologists, and specialises in the development of GUI should participate in the creation of complex systems intended for mass use by non-specialists in computer technologies. Only in this case, you can expect to receive a product that will be able to win the sympathy of users and, with an effective promotion strategy, the relevant markets.

Issues of security organisation in the creation and operation of Internet banking systems are essential. In general, the problem of the security of a banking Internet service should be approached, as well as any other risks - to make reasonable efforts to reduce them by introducing professional solutions and insuring risks.

Internet banking services are widespread in northern countries. In Finland, Norway, Sweden, about 90% of banks operate online. According to the latest research of various institutions, the highest Internet banking system in Sweden is 54% of users. For comparison: online banking users in Norway are 48.3%, in Denmark 43%, in Italy, 12.7%. Over the past year, most growth has been observed in Italy. The number of customers using Internet banking increased by 88% and amounted to 10% of the total adult population.

In some European countries, more than half of the banks currently provide online services. Ireland, Luxembourg, Greece, Belgium are the leaders in terms of payment for internet services. As you can see, this indicator is not always associated with the share of Internet users who work with banks through the Internet. For example, in Greece, 45% of banks provide internet services, and 17% of internet users who use banking services and in Finland figures, respectively, 12% of banks offer internet services, and 53% of customers who use banking services online. The principal purpose for this is that in some countries there are a large number of specialized banks, and their number of users is also higher than in other banks.

Despite the development of banking services in all countries, the customers of universal, stable. European banks providing Internet services significantly increase the number of customers, the bank begins to switch to work only through the Internet. Thus, more than 30% of the clients of the Swedish bank SEB and the Dutch bank Rabobank use internet banking more than once a month. 25% of customers personally come to the bank once a month. The regular use of electronic banking channels in these countries is three times higher than the traditional visit of bank branches. Although there are a considerable number of internet users in the UK and Germany, 20% of the population works with banks through the internet, 60% of customers visit the branches of the bank every month.

#### **2.2. Internet banking – makes our modern life even easy.**

The development of Internet banking is now quite promising. An increasing number of banks are beginning to introduce systems that allow them to interact with customers with the Internet. Thus, according to experts, about half of all customers of banks that have implemented such policies can later use the global Internet for interaction with banks. At the moment, the majority of consumers of Internet banking services are accountants of enterprises that conduct calculations, receive statements, send payment orders over the Internet.

The next level in the further improvement of Internet banking may be working with explicit industries.

Thus, one of the promising areas is to provide customers with mechanisms that will allow them to make payments quickly, regardless of the location of the recipient and the bank, which services it uses. Most banks that have implemented Internet banking systems are located in Moscow. However, regional banks are increasingly using the Internet to serve customers.

In September, Internet Marketing Company conducted a survey of banking specialists on the prospects for the development of Internet banking technology.

The research was administered using the questionnaire method on the Internet Finance project site and at the VII International Forum of Integrated Banking Systems Developers held in Moscow.

Fifty-seven representatives of the banking community answered the questionnaire. All respondents emphasised the promise of Internet banking technology: 91% of specialists indicated that their bank uses or intends to use Internet banking technology; 9% of specialists consider the technology of Internet banking promising, but their banks do not intend to use it yet. None of the respondents indicated that this direction was not promising.

At the same time, banks will continue to provide Internet banking services along with other remote banking services for a long time: - the classic "Bank -Client" and "Phone - Client", because the comprehensive provision of remote banking services significantly expands the possibilities of clients to work with your accounts, with banking information and with the bank itself. Approximately 84% of banking specialists believe that Internet banking complements the capabilities of the traditional Client-Bank system; 14% of respondents believe that Internet banking allows you to abandon it completely, and 2% of representatives of the banking community noted that Internet banking is not needed if there is a "Client-Bank".

Banking experts also note a high interest in Internet banking technology from customers. Thus, 72% of representatives of banks stressed that customers are interested in the Internet banking system and only 5% of respondents to the questionnaire believe that customers would instead refuse to use the Internet banking system.

The survey results (if we consider them in terms of the willingness of banks to implement such a system) showed that it is already installed in banks (25% of respondents). It is planned to be performed within one year (approximately 57% of banking specialists), and only in 18 cases out of 100 representatives of banks answered that their bank does not plan to use it yet.

Now let's try to understand what online banking is? Not in the sense of technology, but the spirit of attitude to the subject. On this issue, American bankers are far from unanimous. Approximately 39% of them tend to view the Internet as another channel for working with clients, 27% as a defence mechanism, and 34% believe that this is a revolutionary tool that changes the concept of market behaviour.

Besides, the perspective (for three years) the importance of the channels for the delivery of banking services was also assessed. Priorities were set as follows: Internet banking (79%), ATMs (74%), bank branches (63%), telephone banking (42%), mobile (telephone) banking (11%).

In terms of the motivation of bank managers regarding the introduction of Internet banking services, the first place is taken by "retaining existing customers" (95%), followed by "raising service standards" (74%), "effective interaction with the customer" (68%) and "Integration with other existing banking operations" (63%). Profitability serves as a motivation for only one-third of respondents, and only 42% view Internet banking as a way to attract new customers.

Those days passed when you had to make numerous trips to the bank office to take even a small amount or transfer money from your own account. The new age deposits Bank account gives you with online banking services, which is the most convenient way to fulfil your banking needs without visiting the bank branch. Online banking services not only save time and money but also provide an excellent convenience in managing your money.

Today in India we have a thriving digital world where even **street** daggers accept digital payments without any fuss, college student can buy stationery using a debit card, or the merchant uses a scan based on the QR code and pays utility bills.

In India, the digital banking wave facilitates the lives of every Indian citizen if they start using online banking. Online banking makes things easier with your money. You can access the information anywhere, if your financial life makes it very easy to access and manage the internet.

Online banking will help you stay undocumented and do what you want to do with your bank account using the new yoshin Internet Banking service. The purpose of Internet banking is not only to make banking services accessible to all citizens of the country but also to attract millions of people who do not have bank accounts to the financial system. Internet banking services allow customers to use banking services via mobile phones.

Yes, you can pay utility bills and other accounts with internet banking. Most banks have a section where buyers or sellers can configure. You'll need to fill out the payment information once, and then you can simply choose whenever you want to pay online. You can also make automatic payments on accounts that do not change the amount.

If your savings account does not provide such an opportunity, you can use the internet banking service to pay for it through a debit card.

This means that you can pay all your payments online, without entering the bank or going to the bank without a check in its favour.

As you can see, it is more convenient for you to are able to transfer 24x7x365 days without leaving the your office or your home. Also you can check the

availability of funds before transferring money, and therefore a bouncing control, etc. there is no question about it.

Mobile banking growth has already had a significant impact on the banking sector, as mobile banking operations in India will soon exceed 400 million and lead to savings in nearly 11 billion Indian Rupees (USD230 million) (Source IBEF - www.ibef.org).



Diagram 1. People who used internet banking, 2017 (% of individuals aged 16-74)

Source: People who used internet banking - er.europa.eu

Internet banking also allows you to transfer money between various accounts using the NEFT/RTGS/IMPS mechanism. It is more convenient to fill in the translation form and give a check to your banker for each translation. When creating an online bank, make sure all your accounts in different banks are placed on the relevant page. You can also register the minds of family members who are often engaged or other beneficiaries.

The availability of online banking will help to configure regular ECS payments such as EMI, mutual funds SIPs and credit card payments. It ensures that the fixed amount will be credited to your fixed date account. Thus, it is not necessary to avoid the relevant agencies to make these payments.

Internet Banking let you reach your account at whatever you want to see earlier operations anywhere. This is the fastest way to check all transactions in real time. You can also download a bank statement for any period or for the entire fiscal year.

If you are regularly reviewing your transactions, you will be able to recognize your debited debts and loans on a daily basis and, if so, what are the expected buyouts and mistakes?Having of internet banking services helps you pay your annual and advance payments online. When you submit ITR, you can get your income tax refund, if available, by submitting your account information

Mobile banking is a type of online banking through a mobile application. Most banks today have a mobile app that makes online banking easier on your phone. This is the most satisfactory method to control your account quickly when you are on the move and trading. Having a mobile app on your smartphone allows you to access information on a secure network that is provided on the internet on your phone.

I have done a survey with my colleagues and groupmates about using ebanking and mobile banking. So I want to show the graph for my survey.





**Source:** Master students of the UNEC and employees of the Bank of Baku using and satisfying of e-banking and mobile banking. Addition 1. (p.77)

In short, we can say that if you have used the services of your bank from your bank, then your bank account is on your move. Online banking services make your life easier because you can meet all of your banking needs without visiting the bank branch.

## 2.3. Potential development aspects and the current situation of internet banking.

To regulate a significant part of the relationship in the law, the evidence is made to other regulatory acts that are currently absent. The judge intends to regulate no less substantial portion of the link by agreement of the parties, and the form of such an agreement (written contract, etc.) is not restricted in any way. The draft Law does not sufficiently elaborate the division of responsibility between the participants in electronic exchange and certification centres.

e-Law, an exclusively commercial organisation, maybe a certification centre. This requirement immediately violates the rights of non-profit organisations, and their share in electronic interaction is not small. One of the options for resolving this contradiction would be a clear indication that this draft Law does not apply to non-commercial relations.

Also, the essence of this requirement is not completely clear if e-signatures start using state organisations, which can also conduct electronic exchange in public systems.

It is also necessary to raise the issue of licensing. According to the current legislation, the maintenance of CIPS is subject to licensing. However, this does not mean that each information exchange participant should receive such a license (following the certification system of EDS means belong to the CIPS) - it is enough that the organiser has a policy.

Such a principled position about the impossibility of using a pseudonym is puzzling since it does not allow, for example, to use EDS to participate in contests under a motto or pseudonym. The requirement for the ability of an EDS to bear civil liability in an amount not less than 1000 times the maximum transaction limit indicated in the certificate seems to be quite controversial. Such a requirement discriminates the form of concluding a transaction in electronic form using EDS - it will only be impossible to sign deals for significant amounts using EDS.

The law implies the use of EDS as an analogue of the signature of an individual, even if the name is put not by him as an individual, but as an authorised representative of a legal entity. This provision seems logical since it directly projects the relations that have developed in the "paper" turnover. However, to dodge misinterpretations, it is necessary to indicate in the public key certificate issued by the official. He was granted not only to the client but to the chairman of the board (followed by the client's last name, first name and patronymic name) acting on the base of power of attorney-at-law or charter of the enterprise. It is easy to notice that in this case, the client has two certificates both as an individual and as an authorised person of a defined legal entity.

Thus, this undoubtedly necessary and long-awaited law needs serious improvement.

The banks should designate the network administrator and the database precisely as specified in the group report. Banks must have a valid security policy approved by the Board of Directors. The division of information systems and information technology security issues/duties of a group member should be distinguished from the department dealing with the application of computer systems. Later the auditor of information systems will conduct an audit of information systems. Banks provide information, policies, application software, utilities, telecommunications lines, libraries, system software, and so on, logical control of outputs.

Sequential access control methods may include user IDs, passwords, Smart cards or other biometric technologies. At least, banks do not use a proxy-type firewall because there is no direct connection between the internet and the banking system. This promotes a high degree of control and in-depth monitoring using input and audit tools. For vulnerable systems, it is recommended that they check the firewall status, carefully reviewing all data packets and comparing past and present transactions. Generally, they include real-time notification. All systems are supported by the remote access service through the same local area network modem as the application server because it can bypass the proxy server, which must be isolated to prevent network interference.

Also, it is recommended to disable all unnecessary services on the application server, such as FTP, telnet. The application server must be isolated from the e-mail server. Physical access controls should be strictly implemented. Physical security should cover all information systems and sites where they are placed against both internal and external threats. Banks should have the appropriate infrastructure and programs to back up data. The backed up data should be periodically tested to ensure recovery without loss of transactions within a given time frame in the bank's security policy. Business continuity should be ensured by establishing disaster recovery sites. These facilities should also be tested periodically.

Given the superior legal situation, banks should not only identify identity but also investigate the credibility and reputation of potential customers. Therefore, even though the request for the opening account can be accepted over the Internet, considerations should be opened only after the proper introduction and physical verification of the identity of the customer. From a legal point of view, the procedure for ensuring security adopted by banks for the identification of users should be recognized by law as a change of signature. In India, in Section 3 (2) of the act on information technology, in 2000, exclusive technology is envisaged (i.e., asymmetric cryptosystem and hash function) as a means of electronic recording authentication. Any other method used for authentication by banks should be recognized as a source of a legal risk.

In Internet banking scenario, there is minimal scope for the banks to act on stop-payment instructions from the customers.



**Diagram 3. Mobile Banking Penetration by Race.** 

\*Percentages are out of those who own a mobile phone and a bank account.

Source: Mobile Banking Penetration - www.researchgate.com

Hence, banks should notify to the customers the timeframe and the circumstances in which any stop-payment instructions could be accepted.

As suggested by the Group, the existing regulatory framework for banks will also apply to internet banking. In India, licensing and supervision and physical presence of such banks, residents of India will be entitled to offer Internet banking products. Thus, it will not be allowed to provide online banking services to both indigenous and non-resident virtual banks, which are still registered in India and do not have a physical presence in India. Products should only be restricted by account holders and should not be offered in other jurisdictions. Services should only cover products in local currency. In the out-of-scenario and Indian residents provide banking services in trans-boundary jurisdictions when the Indian banks (or branches of foreign banks in India) offer clients banking services in transboundary jurisdictions, the out-of-scenario is generally unacceptable, and this approach also applies to internet banking will be. Existing exemptions for specific purposes under FEMA are that residents are allowed to continue to serve their accounts in foreign banks and so on, but will be permitted chief, the head of the house. Foreign branches of Indian banks will be allowed to offer internet banking services, provided that they are provided to their external customers, along with the host.

Electronic banking has a slightly different risk than traditional banking. These risks are expressed more often in Internet banking. Firstly, the risk of technological changes should be closely monitored. This technology is needed to clarify and stay productive and customer-friendly. Methods are usually derived from external parties. Banks should be cautious about the risks associated with such agreements. Security is a significant risk area. It will be essential for the expansion of the banking network..



**Diagram 4. Mobile Bank Penetration By Age** 

\*Percentages are out of those who own a mobile phone and a bank account.

Source: Mobile Banking Penetration – <u>www.researchgate.com</u>

When making online payments or transferring money from one account to another, online bankers are always concerned about hackers and antisocial elements. Hacking allows unethical hackers to access online bankers ' accounts and spend their money. Only the presence of confidential information protected by username and password makes it vulnerable to such threats. Most banks are trying to make their own sites by implementing the latest software for network security. Nevertheless, there were many cases when internet surfers were accidentally exposed to the financial details of online bankers. In 2004, Morgan Stanley admitted a serious lack of security in the system of the last operation of online banking, Internet Security failed. This flaw allowed customers to access account details from other customers.

# Chapter III. Possible development aspects of online trade and the current status of internet banking in Azerbaijan economy.

## **3.1.** The role and place of e-trade business development in Azerbaijan economy.

The development of e-commerce is significant for the present time in Azerbaijan. Both for the countries involved in the trade to expand their business, and for the customers to be able to offer their services better.

The volume of e-commerce in Azerbaijan in January-July of 2017 amounted to 21.8 million Manats. Rafael Suleymov, head of the public and Public Relations Department of the State Statistics Committee of Azerbaijan, gave this information. In addition, in the first period of 2016, the volume of e-commerce amounted to 7 million Manats. Taking this into account, we can say quite clearly that given the indicators for January-June last year, the bulk of e-commerce increased three times this year. (Source: The volume of e-commerce in Azerbaijan - www.stat.gov.az)

Despite the enormous potential of this sphere, some experts in the field of Information Technology claim that e-commerce in Azerbaijan has developed poorly. They think that many technical measures should be taken for the development of this area. They even stated that e-commerce should be tax-free for further development.

In my opinion, the most significant incentive for the development of ecommerce in Azerbaijan is the tax exemption of companies engaged in this business. Because this sphere is still new in Azerbaijan, and at least necessarily a grace period should be granted for the development of this sphere.

At the end of June 2018, a forum on the international promotion of digital trade was held in Baku. According to experts, the holding of the form and the creation of a trade network is a step to take and will contribute to the development of e-commerce service in Azerbaijan. In particular, Azerbaijani entrepreneurs will be able to obtain the necessary documents and certificates for the export of their products. To be more precise, any performer in Azerbaijan will be able to obtain documents for the export of my products through a computer or mobile application

without leaving his/her office and carry out the necessary procedures related to registration.

At the same time, the need for granting tax benefits by some experts of financial institutions continues. In particular, tax authorities believe that a significant part of companies engaged in electronic commerce operates secretly in order to avoid tax payments. This factor is the main factor in the low volume of e-commerce in Azerbaijan.

From January 2017, the law on the withholding of 18% Value Added Tax on electronic commerce came into force in Azerbaijan. Since that year, e-books, music, audio and video materials, the purchase of realistic paintings, the use of virtual games, the placement of ads, etc. Value Added Tax is applied to electronic services. If I summarise, when buying a physical product in electronic form, no taxes are charged, and when using a single, automated service, Value Added Tax is applied.

According to the note of the Ministry of Taxes, this step is protectionist and has been taken to protect local entrepreneurs. They also note that the value added tax on the listed services is applied to residents who make online purchases from foreign countries.

According to the State Statistical Fund, the volume of e-commerce reached 12.8 million in 2015, which is two times bigger than in 2014. Despite this, the growth in 2016 decreased by 17.2% to 15million manat.

	I Place	II Place	III Place
2016	Unibank OJSC	Bank of Baku OJSC	IBAR OJSC
2017	Unibank OJSC	Bank of Baku OJSC	IBAR OJSC
2018	AG Bank OJSC	Unibank OJSC	Express Bank OJSC

 Table 1. Leading bank in the development of e-commerce

Source: CBAR's official website: www.uploads.cbar.az

After the introduction of Value Added Tax, the tax authorities monitored and accounted for companies engaged in electronic commerce more carefully, so that in the first half of 2017 the volume of e-commerce increased by 50% compared to the full figure of the previous year.

However, the prospects of e-commerce are fundamental in Azerbaijan. In 2015, the volume of purchases per capita in e-commerce amounted to 1.3 dollars, in the United States of America to 1074 dollars, in China to 410 dollars, in Russia to 141 dollars. It is possible that the statistics of e-commerce in Azerbaijan are quite low, which is why most companies still operate secretly to evade taxes and provide their services to potential customers at a lower risk. In my opinion, e-commerce in Azerbaijan should be stimulated not only by our compatriots living in the country but also by our compatriots living abroad.

According to 2015 indicators, the volume of e-commerce worldwide amounted to 1.7 trillion dollars. Here is the main share: China-562.7, USA-349.1, UK - 93.9, Japan - 79.3, Aaniya - 74.6, France - 42.6, South Korea - 36.8, Canada -28.8, Russia - 20.3 and Brazil - 18.8 billion dollars. (Source: E-commerce volume 2015, www.statista.com)

# **3.2.** The effect of agreements on the development of the trade in Azerbaijan economy.

According to April 2019, there were 10 million people in Azerbaijan, of which about 8 million were internet users, which is 80%. Poorly developed telecommunications infrastructure remains the main obstacle to the low level of literacy in the field of information and communication technologies, along with high tariffs on expensive consumer equipment and satellite communications, as well as wider access to the Internet across the country. The Internet remains expensive for the majority of the population, and Azerbaijan lags behind its neighbours in terms of speed and accessibility of the Internet. Currently, the Internet is considered "partially free" in Azerbaijan.

In 2016 Azexport.az e-commerce portal was created in accordance with the presidential decree. In addition, the Digital Trade Center, which plays an important role in the provision of international trade transactions, was created to increase

Azerbaijan's status as an Electronic Trade Center and to expand its commercial relations with other countries.

Native e-commerce remains less advanced. Despite the presence of electronic payment and authentication systems, most Azerbaijanis prefer to pay cash. E-commerce is otherwise used only for purchases made abroad. For overseas sales, AzExport.the AZ online sales portal provides a database of goods produced in Azerbaijan for buyers anywhere in the world to buy online. It offers secure payment options using credit cards and global and local transportation and logistics companies. The site also partners with other major international sales portals to direct potential buyers to the product database

Over the past some years, e-commerce has been developing rapidly. According to the Ministry of Transport, Communications and High Technologies of Azerbaijan, e-commerce has been developing dynamically in Azerbaijan in recent years. In 2016, the amount of retail e-commerce in the country amounted to 25 million Manats (\$14.68 million), but in 2017 this number exceeded 46 million Manats (\$27.02 million).



Graph 3. The amount of Retail e-Commerce in Azerbaijan, 2016-2017

Our country UNCTAD's B2C e-commerce index ranked 68th. A growing number of ATM has raised its e-commerce level to the market and some B2B

Source: Ministry of Transport, Communications and High Technology www.mincom.gov.azn

websites have also emerged. The amount and volume of credit and debit card transactions are increasing and many hotels, restaurants, supermarkets and middleclass stores are increasingly accepting credit and debit card payments. However, many shippers are reluctant to send goods without prepayment, and e-commerce is limited to the prevalence of shadow economy, as well as a deficit of open and valid legislation.

One of the critical issues that the government is working on is the development of the dissemination of internet banking, mobile banking and noncash payments and the further increase of e-commerce development. The tax department pushed retail business to install POS devices, but given that the economy is still cash-based, the very small retail business did not use them. Some of the most known e-commerce sites in Azerbaijan are elan.az, contact.az and hepsiburada.com. Cross-border e-commerce is still evolving. The majority of items purchased from foreign web sites, smartphones and computers components.

In the opinion of the State Customs Committee, the administration is currently working on the provision of effective legal e-commerce, the preparation of new invoices. The main centre of the e-commerce advancement plan is statistics, business-customs cooperation and capacity technologies; therefore, we are developing new data collection technologies.

The "e-commerce" portal established can be considered as an example of systematic and stable state support for the development of entrepreneurship. In the implementation of measures in 2008-2015, the president of Azerbaijan, "plan" of the state program on the reliable supply of foodstuffs and the population of Azerbaijan, confirmed with the order of 25 August 2008, The Ministry of economic development was given to the commission to intensify the activities on the creation of "electron trade" in Azerbaijan.

To guarantee the execution of the task, the electronic commerce portal was created by the Ministry of Economic Development to support entrepreneurs, in particular, to guarantee independent access by farmers to the markets. The first commercial portal of Azerbaijan was created in the bases of the "B2B" (business-business) model. The purpose is to support the creation of business relationships by providing customers with information about their demand for products and services to potential customers and ensuring independent access to the market.

The mission of the portal is to provide reliable assistance to entrepreneurs in business relationships and to provide entrepreneurs with easy access to the world market. To use the portal, it will create an opportunity for business people to convey information about their productions and services to potential customers, business relationships, independent access to markets, enlarging format information about customers' demand for products and services. The electronic trading portal, which is based on modern electronic information exchange technologies, enables entrepreneurs to provide information to the interested parties about the product/service and to obtain information about customers' product and service requests.

Baku E-trade Forum was 2018's most exciting international gathering in the ecommerce world. E-commerce is facing rapid changes in recent years. Even the most important companies are struggling to address multiple challenges when it comes to market intelligence and online growth.

Two-day senior level, highly interactive, the tailor-made forum with a focus on what is needed to have the best E-Commerce strategies, bringing together the best minds from the international development agencies, consumer companies along with the top digital platforms.

The Forum, which was realised for the first time in Azerbaijan, was organised to assist the development of e-commerce in the country. The Forum was accompanied by representatives of SMEs, initiatives in the fields of electronic commerce, electronic payments and logistics, and representatives of government bodies and international institutions involved in the improvement of various viewpoints of e-commerce. The Forum served as an international platform for re-considering relevant recommendations on the development of e-trade in the region and identification of practical applications.

Within the structure of the Forum, various sessions will be held in seven fundamental areas identified by the United Nations conference on commerce and growth for the development of e-commerce. Representatives of the European Union, World Bank, World Trade Organization, European Bank for Reconstruction and Development, International Trade Center, International Telecommunication Union, Universal Postal Union and other international organisations and internationally recognised experts in e-commerce made presentations during the sessions.

The forum also stressed an exhibition of regional launching engaged in ecommerce. It should be noted that the share of e-commerce in the European Union is currently 35 per cent. E-commerce in the world is 10 per cent. Based on this year's "business-to-business" model, worldwide e-commerce was 3 trillion. The development of e-commerce in our country ranges from 10 to 15 per cent.

In recent years, due to the diversification of the economy, the development of the non-oil sector, the modernisation of telecommunication infrastructure and the expansion of electronic services in the banking sector, the volume of e-commerce in Azerbaijan has increased every year. Today, it has been noted that Azerbaijan has become a Transit Postal Center (HUB) in the field of e-commerce due to the improvement of transportation and telecommunication infrastructure.

The new generation of identity cards in the way of the development of electronic commerce was also emphasised in the importance of your electronic signature chips.

Turkey, Azerbaijan and Georgia signed an e-commerce agreement in Istanbul in June 2017. Cross-border e-commerce provides a unique opportunity for SMEs in countries and regions that can force them to reach regional and international markets such as stranded developing countries and to relate with possible users away from their borders. The quantity of Internet users in Azerbaijan is increasing every year. Today Azerbaijan is a leader in Internet penetration between Central Asia and CIS countries and is observing a growing trend in the quantity of broadband internet users. This leads to the development of e-commerce.

The country has taken various measures to support SMEs in the country as a working country and the Ministry of social protection has developed a self-employed programme. For this purpose, approximately 6 million manats (3.388 million dollars) were allocated from the presidential reserve fund for the Ministry.

The programme envisages all participants to receive special training and to obtain practical knowledge of the implementation of SMEs and to recognise the financial aspects of entrepreneurship. They also develop business plans and ensure that a special commission is taken into account. If the project is considered to be successful and promising, the participants receive all the necessary assistance free of charge.

According to the TSI have 48 million Internet users in the country and 43 per cent of the daily global network of users use online shopping.

In Turkey, 30.8 billion Turkish liras (15.5 billion US dollars) was spent on online purchases during the six months of 2017. The Ministry of Finance expects this figure to reach 50 billion Turkish liras (12.7 billion

US dollars) by the end of the year.

The first half of the year, 17.5 billion Turkish liras (\$4.4 billion) online purchase total volume retail trade came, 10.1 billion Turkish liras (\$2.5 billion) - tourism sector (hotel reservations), the remaining 3.2 billion Turkish liras (808 million) - online gambling.

In accordance with the State Customs Committee of Azerbaijan, trade turnover between the two countries reached \$ 1.96 billion in January-September 2017, an increase compared to the same period of 2016.

In Azerbaijan, as in other improved countries, interest in e-trade is associated with trader and buyers. Sellers can decrease the cost of the crops by reducing costs to extra employees, while receiver also saves on additional funds and time. Also, more people can receive acquainted with these crops during e-commerce. In countries where like this commerce is widespread, there are little cases of tax missing. Because payments are made electronically, all fees are registered and subject to taxation.

At present, the most significant barrier to the development of digital trade is seen as security. The improving of secure payment systems, the acceptance of electronic signatures, the establishment of confirmation agencies and the finishing of legal gaps will speed up the development of electronic trade. Protected areas of electronic commerce, such as conservation of the intellectual property, preservation of taxation, protection of clients, operations carried out in digital media and legal force of records and judgment of information entirety and security, require to be clarified instantly.

As per the State Statistics Committee, in January-June 2015, retail exchange elements sold more than 12.0 billion manats to purchasers, or 13.4 per cent more than in the comparing time of 2014. Nourishment items, refreshments and tobacco items represented 49.5% of the aggregate customer merchandise, and 50.5% were non-sustenance items and the offer of non-sustenance things expanded by 1.3% contrasted with January-June 2014. In the first portion of this current year, the volume of electronic retail exchange turnover grown by 1.9 times compared with a similar time of the earlier year and added up to 6.0 million manats. 93.0 per cent of buyer merchandise requested on the web, 7.0 per cent from the web-based business system of individual business people. 96.5 per cent of electronic exchange turnover was comprised of non-nourishment things. 15 In January-June 2015, open cooking administrations expanded by 17.1 per cent contrasted with a similar time of the earlier year and added up to 473.1 million manats. The providing food administrations for lawful elements added up to 202.2 million manats and 270.9 million manats regarding the matters of individual business people working in this circle. In January-March 2017, the nation sold more than 10.1 million manats in electronic ware arrange. It is 1.7 times more practically identical costs than in January-March 2016. This figure might be more since there are specific issues.

While the quantity of Internet clients in Azerbaijan is around 6 million, most by far of them tumble to the urban populace, or the number of inhabitants in Baku, Sumgayit and Khirdalan. These insights recommend that there is a disparity in the circulation of Internet clients in urban and country zones. Dynamic web use is required in locales. Web clients are increasingly more youthful age, and, obviously, they are not an active client of exchanging exchanges. Since web-based business is expressly subject to the Internet, the low enthusiasm for the Internet in the areas negatively affects the improvement of this field. These days, because of access to the Internet utilising cell phones, most Internet clients are cell phone clients. This isn't an explanation behind web-based business yet. The other reason is that individuals don't have the internet business propensities. To make this propensity in people, the web-based company ought to be given certain concessions, and this should keep going for some time. At any rate in internet business, costs ought to be lower than conventional trade with the goal that individuals are occupied with purchasing an online store through the web-based company.

Problems arising from technical substructure limit input to open networks and so e-commerce importantly. It is not feasible to develop digital commerce without a fast, dependable, cheap and publicly reachable open network substructure. However, the appropriation of domain names to be accessed by clients must be classified to ease their subsequent usage, and they must also fit 54 with international norms. As digital commerce is realised via the Internet, it is essential to expand the online network, raise the number of networked computers and, very importantly, reduce the connection expenses. Finally, individual users and particularly small businesses should be learned and informed about digital commerce. The education system must be redrawn to educate the information workers of the coming

In our country, digital commerce promises to simplify entrepreneurs to switch to digital commerce. So we can avoid tax missing. In our country, the divide of electronic trade in total economics is very little, but the prospects are unbelievable. In recent years, we are able to see the trend of people to digital commerce.

## 3.3. Current situation of internet banking in Azerbaijan economy, an example commercial bank – Bank of Baku.

Every year, the banking system in Azerbaijan is more integrated into the world financial system with increasing turnover electronic commerce is gaining more and more popularity. Thus, for January-April, the turnover of e-commerce in Azerbaijan was 3.7 million, which is 1.8 times higher than in a 2014th year.

At the same time, in the first four months of that year, 96.4% of the ecommerce turnover was non-food trade. A large part of the obtained commodity products were the objects of the trading network owned by legal entities. In 2014, retail e-commerce turnover in the country amounted to 6.4 million Manats. Turnover is further increased due to the widespread use of banking services, including plastic cards. Almost every month, banks organise various campaigns to make purchases on more favourable terms through the Internet.

Also, if e-commerce indicators are published every month, we can see that internet and telephone banking are not so good. Until 2012, the Central Bank issued a quarterly report on the development of internet banking in Azerbaijan.

In 2010, 30 thousand operations worth 75.47 million Manats were carried out, 26.6 thousand transactions worth 25.3 million Manats in 2011 and 28.6 thousand operations worth 23.8 million Manats in 2012. Thus, in the first half of 2013, turnover suddenly increased to AZN 171.4 million on 28.3 thousand operations.

In the first half of 2013, mobile banking carried out 19,000 transactions worth 283.3 thousand Manats. If we look at the indicators of recent years, we can say that the number of operations carried out through the Internet and mobile banking will increase every year, as the Central Bank itself was interested in this process. The Central Bank carries out various stimulating campaigns to motivate local banks to revive this sphere of activity further.

Azerbaijan is in 6th place among CIS countries for the development of mobile banking. The decision was made by Marksebb Rank & Report, which analysed mobile applications of large banks in the Union countries. This agency is pleased to announce an interview with Marksbb Rank & Report CEO Alexei Skobelev.

	I Place	II Place	III Place
2016	Bank Respublika OJSC	Turanbank OJSC	Accessbank CJSC
2017	Bank Respublika OJSC	Unibank OJSC	Pasha Bank OJSC
2018	IBAR OJSC	Unibank OJSC	Kapital Bank OJSC

Table 2.Leader bank in e-banking services

Source: CBAR's official website: www.uploads.cbar.az

This analytical agency has recently published large-scale research on mobile applications of large CIS banks. Let's see what issues have been achieved? According to the results of research on the effectiveness of mobile banks in Mobile Banking Rank CIS 2017, top-5 of the best applications for Android and iPhone included services from Tinkoff Bank of Russia, Alfa-Bank, Pochta Bank, VTB24 and Sberbank. Russia Raiffeisenbank, two Belarusian banks (Belgazprombank and Alfa-Bank), Georgia Bank and Kazakhstan ForteBank have completed the best practices.

The best mobile bank in Ukraine, according to the results of the study, came to Ukraine's largest Privatbank. In the overall ranking, he ranks 11th on iOS and 12th in Android.As a result of the research, Unibank is the best mobile bank in Azerbaijan (22nd place). This application is selected from the local competitors for the convenience of the program and the convenience of the interface.

Azerbaijan mobile banking differs from other countries with:

1. Between banks based on accredited requisites: To carry out the transfer, only the name of the IBAN and Surname, Name and Father name should be indicated, and in Russia, the account number, BIC and Surname, Name and Father name should be mentioned. Currently, transfers to the bank accounts are only possible at YapiKrediBank, but it should be noted that the bank and branch name

which the IBAN belongs and Surname, Name, Father's name of the client, which makes it very difficult for such type of transactions.

2. The availability of a single electronic identification system for Asan Signature citizens can be a solid foundation for the further development of remote banking in Azerbaijan. In Russia, such a policy (unique identification and authentication system - ESIA) is only used for public services and is not applicable in the banking sector.

3. There are many mobile banking opportunities in Azerbaijan, which allows individuals to send cash and make transfers (Bank of Baku, Unibank and International Bank of Azerbaijan). In other cases, these functions are only performed in the most advanced banks (for example, Tinkoff Bank in Russia)



Graph 4. Best Mobile Banks in the CIS

Source: Mobile Banking Rank CIS 2017 www.markswebb.ru

The level of development of Internet banking in different countries of the post-Soviet space is very different. There are also technological leaders who apply the most advanced solutions, but there are banks that, as if ordinary and straightforward features and interfaces are still new.

The level of development of mobile banking in different countries is calculated based on Markswebb's experts for each state based on the assessment of the banks they provide in the research. The highest estimate of the effectiveness of mobile banks is provided by Russian banks, followed by Belarus, Georgia, Kazakhstan, Ukraine and Azerbaijan.

I have researched the development of mobile banking in Azerbaijan. Speaking of applications of mobile banking, let's look at what is the most effective in our country today?

Azerbaijan's mobile banking systems remain mostly unchanged from the Russian, Belarusian, Kazakh, Georgian and Ukrainian banks. In any of the mobile banks studied in Azerbaijan, it is impossible to get information about the statements for months, prices of services, and limits. The ability to manage current banking products is also minimal: it is impossible to change or unblock the existing PIN code with mobile banking. In any mobile bank of Azerbaijan, you can not open the account in local or foreign currencies, get a new card order and look at the mobile bank's capabilities.

Development perspectives of digital banking in Azerbaijan. The mobile banking ratings of leaders and outsiders will grow differently. Leaders will try to suppress mobile banking's other service channels - to transfer all client assignments to mobile applications (including certificates and receipts). To capture new technological features of mobile devices: application of transfers through IBAN, non-contact payment with smartphone using NFC, recognition of a card for shipment using a camera or NFC, acceptance of new products and identification, recognition of Easy Signature not only for accessing the program, but also for the clearance of bank products, etc.

Work on the add-on functionality before placing such an ambitious task in front of the outsiders - expanding the payment and translation capabilities, giving customers complete control over the bank products, and working on the addition of additional registrations and documents. Work on the add-on functionality before placing such an ambitious task in front of the outsiders - expanding the payment and translation capabilities, giving customers complete control over the bank products, and working on the prosses of getting additional registrations and documents.

Currently, there is a direction to switch from traditional banking to digital banking. Many banks set themselves the task of increasing the number of MBS users, because it reduces the burden on the bank's divisions and costs, and also facilitates communication with customers. However, digital banking cannot fully replace traditional banking in the near future, and there are many reasons for this, from the conservatism of a part of customers to the legislative and infrastructure constraints that require the client's full participation in the signing of contracts with the bank.

According to the information given from the Central Bank, in January-September 2012, the volume of transactions through Internet banking in Azerbaijan amounted to 4.2 million Manats, and in January-September of that year, 20.1 thousand transactions were conducted through internet banking.

The CBA notes that the population actively uses ATMs and pos-terminals to conduct operations. During the reporting period, 35 million were allocated with ATMs.

As reported, in 2011, the volume of internet banking transactions by banks in Azerbaijan amounted to 25.3 million manats.

According to the statistics of Kaspersky Lab, the number of users passing through phishing links is growing. In the fourth quarter of 2017, if 7.3% of users in Azerbaijan faced this cybersecurity, it is already 9% in the same period of 2018. In most cases, the goal of attackers, in this case, is to obtain confidential information that can make money. For example, if the user is going to be careless and enters data from internet banking on a fraudulent site, then the attackers can use the information they obtain without difficulty to later transfer money to their accounts.

Internet Banking allows the user to conduct financial transactions with the Internet. It is also known as online banking or web banking. An Internet bank will offer customers just about every service that is traditionally available through a local branch.

Through Internet Banking, underlying banking transactions such as paying bills and transferring funds between accounts can easily be performed at times convenient to consumers.

Internet banking provides an array of services including functional budgeting and forecasting tools, financial planning abilities, investment analysis tools, credit calculators and equity trading platforms.

Online accounts are easy to arrange and require lesser information than a traditional bank account. While working through Internet banking, you have the option of you calling customer care or emailing the bank directly, if any problem arises.

Accounts can be financed directly from a traditional bank account through electronic transfer. Most of the direct banks offer unlimited money transfers, including those intended for foreign financial institutions, at no cost. They also accept direct deposits and withdrawals that you allow, such as payroll deposits and automatic billing.

Banks in Azerbaijan consider saving their customers ' comfort and time, offering you to use the new tool for managing bank accounts - internet banking. Using the internet computer connected to the network, you can manage your card accounts and payment cards without having to contact the bank office through this system. The use of Internet banking creates excellent opportunities for the purpose of accounts and control of Cards, which is a necessary element of the security of your funds.

Benefits of operating with Internet Banking method are:

- it is always available this system works day and night without breaks and weekends (24x7x365);
- Access to the system from anywhere in the world is possible from any computer connected to the Internet.

- On the other computer the system does not require additional software, any internet browser will suffice;
- with the higher safety application of the one-time passwords app with higher security makes fraud transactions almost impossible with theft of your account or money.

In Azerbaijan, some banks also offer internet banking and mobile banking:

- ➢ Bank of Baku − DostBank
- > Unibank Unimobile
- International Bank of Azerbaijan IBAR
- ➢ Kapital Bank − 1 Bank
- ➢ VTB − VTB
- Pasha Bank PB
- AzerTurkBank Azer Turk Bank
- ➢ Express Bank − Express, etc.

I have researched the internet banking system over the Bank of Baku ebanking service and mobile banking service.

Below are the relevant chapters of management on how to connect and work in the Internet banking system. The Bank Baku internet banking system provides you with the next services:

- 1. General information about accounts and cards (list of your cards and accounts; types (names) and amount of funds on each account/card);
- 2. Report from the card account (also for inactive cards)
- 3. Card to Card.
- 4. Payments for mobile phones, stationary phones, Internet, public services and others
- 5. Card block. If you have writed wrong passwords three times after this procedure, your card will be blocked. No services on the blocked card are possible. In case of any trial of the blocked card on ATM or POS terminal your card will be removed from circulation. To unblock the card, you can apply to the Bank, or you can call 145

- 6. Regular payments. The customer enters specific data and chooses the payment frequency. Then, the system based on this data makes the payment at the intervals determined by the customer.
- Payment templates. The newly introduced data is stored by the system.
   You do not need to enter the data next time to make the payment client.

The list of services within the e-banking will be widely expanded in the future.

The connection to the system is possible with the client code and password, after a one-time password is included.

In the internet banking system, one-time passwords are used not only for the purpose of connection but also for the approval of certain transactions that you will perform in order. Therefore, check the list of one-time passwords.

The password is a critical defence of your account in the internet banking system. Take it very seriously! If you think that someone of your friends or relatives might know your password immediately change it another. Below are tips for creating secure identifications. Do not use easy identifications like «54321», «qwerty», «password», do not write your name, last name, birthday or number of the passport also only names or nouns as a password! It is straightforward to disclose such passwords by the search.

Writing of some Azerbaijanian words or combination of words in the English layout of a keyboard will be a suitable variant. For example, the password of «2019УНЕК» in the English design looks like «2019EYTR». It is impossible to define such a set of letters, and it will also be easier for you to remember it. Another successful alternative of the password might be the replacement of some word-password letters in numbers. For example, to write UN3C instead of UNEC.

Also, remember: never under no circumstances tell your password to anybody! The Bank never sends to its users' letters, requesting a password!

If you use a mobile bank, you can select a one-time password from your mobile phone. By selecting this method, you will see the code to enter a special bar in Mobilbank. After a former password is generated, you can use it to confirm the Another way in Bank of Baku you can control your card accounts through the Bolcard cabinet. You can see all your payments and transactions and your balance. Already bolcard cabinet has a mobile version. So you can use both of them – DostBank and Bolcard Cabinet to make all transactions easy.

I have asked some customers of Bank of Baku, that have them use e-banking or mobile banking. Near fifty customers have participated in my survey:



Graph 5. Usage rates of e-banking and mobile banking

**Source:** Usage rates of e-banking and mobile banking of clients of Bank of Baku. Addition 2 (p.78)

The people who use mobile banking are more satisfied than others. The people who used both frequently come across with balance problem, because of mobile banking are updated much more quickly than internet banking.

#### CONCLUSION

The rise of Internet banking systems has increased the banking business competition. As both the Internet and the "brick-mortar" banks offer unique benefits and disadvantages, it's not wise for a prospective future banking client to make banking with both options. Even though it's not always possible for everyone, the best thing to do is to divide banking between in-store and online services and use the convenience and savings of internet banks while maintaining customer service and personal relationships that a physical branch can provide.

While the benefits of internet banking can be undeniable, there are some issues and concerns that customers need to be aware of. Many people have trouble relying on the safety of online transactions, fearing the genuine possibility of identity theft. It is essential to identify the robbery, but some online banks take this risk more seriously than others. Before opening an online account, it is better to research the bank's security policies and protections to ensure that the customer meets their expectations.

The choice of whether or not to have a bank on the Internet depends on many variables. Even if a customer can benefit, he may be reluctant if he doesn't trust the Internet or has much experience. On the opposite end of the scope, people can register for limited services, such as account display.

This will save them from security issues but will give them daily access to account activity. If the customer decides that internet banking is right for him, he must be sure to review other offers from several banks. Each bank has different fees and advantages that can make a big difference in how much internet banking costs. By comparing deals and being educated, a customer can find an internet banking service that suits his needs.

Trading had undoubtedly evolved since the early days, back when 24 stockbrokers met under a buttonwood tree in lower Manhattan. Although the open outcry system has dominated markets for many years, advances in technology have led to fewer bugs, faster execution and better electronic systems.

Retail traders and investors increasingly have access to technology that was previously reserved for institutional investors and financial professionals, which has helped level the playing field – to some degree. It's important to note, however, that large firms typically have access to more sophisticated computers, increasingly complex algorithms and faster connections – all of which give them a definite edge.

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Using and satisfying of e-banking and mobile banking

Surname and Name:

1. Online operations are comfortable and safe or not secure for you?

2. Have you ever tried e-banking? If you tried, then were you satisfied?

3. Have you ever tried mobile banking? If you tried, then were you satisfied?

Usage Rates of E-banking and Mobile Banking.

Surname and Name:

4. Do you use internet banking?

YES

NO

5. Do you use mobile banking?

YES

NO

6. Do you use both of them and why?

YES NO