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CONTENTS

INTERNET MARKETING SOLUTIONS TRANSFORMATION DUE TO CHANGES IN CONSUMER'S PERCEPTION OF INFORMATION

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online marketing, online marketing communications, computerization, informatization, thinking, transformation.

ABSTRACT

We have outlined the main aspects of the modern socio-economic space that have led to transformation not only in the business sector but also in human thinking. We have examined the aspects of the studied problem expressed in modern scientific works and explained the need for further study of changes in the thinking processes of consumers in the field of transformation of applied Internet marketing solutions for the requests of Internet users. We have analyzed the dynamics and trends of changes in Internet user behavior, thereby identifying the key aspects that should be taken into account when companies create online marketing strategies. We have proposed a list of steps to optimize the marketing strategy of the business in line with new realities.

The relevance of the study is due to the social processes of modern society resulting in the tendency to transform consumers' thinking. COVID-19 and self-isolation have had an impact on this phenomenon, accelerating the massive changeover to online communication and online shopping.

The goal of this article is to describe the results of a study of changes in consumer thinking in connection with the transformation of realities caused by the global pandemic.

The scientific novelty of the study lies in highlighting the peculiarities of information perception by modern consumers associated with the global pandemic, and in substantiating the ways of transforming Internet marketing solutions for companies in an altered reality.

The theoretical importance of the research lies in a better understanding of the reasons and features of the transformation of information perception by consumers in modern realities, as well as in the analysis of scientific works to study the impact of informatization and computerization on society thinking, which can be used to study this component in marketing research, including in online marketing. This is the practical value of this work.

The practical value of the study lies in identifying the features of the transformation of the thinking of modern consumers through visitors to the website of Cita Lieta ltd. at ceanocosmetics.com.

Like in any scientific article, this one has its research limitations. The author explores the transformation of consumer thinking change using the data from the website analytics of one company in a particular niche.

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Introduction. In 2020, there have been global changes in the entire world community. Today, the COVID-19 pandemic has become a global problem for all mankind in the 21st century, causing serious socio-economic consequences: the postponement or cancellation of many sports, religious,

political, and cultural events, a shortage of supplies as a result of massive purchases due to panic; mass quarantining of educational institutions; massive move towards telecommuting.

Self-isolation in various countries due to the pandemic has greatly affected the way of life. The spread of online communication has led to a change in habits, consciousness, as well as the acceleration of the transformation of human thinking, which is already changing influenced by global informatization.

All the above had a strong impact on the activities of service and trade enterprises, resulting in the manufacturing business suffered. Companies that managed to transfer their activities to digital space in a short time were in a more advantageous position. This provided access to the maximum number of users to their products (services) and actualized the problem of finding optimal solutions for Internet marketing for the most effective interaction with Internet users in order to turn them into customers of the company. In this context, the issue of transformation of human thinking due to the global pandemic and their impact on the choice of Internet marketing solutions in the business environment is relevant and in demand.

Thematic Literature Review. Continuous socio-economic development, transforming the existing and creating a new reality of human existence, has been the subject of research for many years in the context of its impact on changing people's behavior and thinking. For example, there are the following foreign studies of consumer thinking and behavior in different cultures: Clark (1990) [3]; Douglas and Craig (1997; 2006) [4, 5]; Mick and Fournier (1998) [11]; Flere and Lavric (2008) [6]; Huhul and Zinchuk (2014) [8]. There are many studies on attitudes that influence consumer behavior, including the works of Fishbein and Ajzen (1980) considering the "theory of subjective expected utility", J. Gutman (1981), Olson and Reynolds (2001), Audenaert and Steenkamp (1997), studying the theory "from means to ends" [1,2,7,12].

In English-speaking countries, researchers prioritize the study of digitalization and its impact on marketing. Bala and Verma (2018) focus on new opportunities for digital marketers due to the active development of social networks [10], and Kamal (2016) pays special attention to analyzing trends in digital marketing development to quantify the future needs of the company [9].

The Russian scientific school focuses on the study of changes in the thought processes of individuals due to the high level of digitalization of modern society. In particular, Konstantinova and Tarasenko (2017) study the impact of informatization on the formation of clip thinking among young people and, as a result, on the social relations of the younger generation [13]; Koshel and Segal (2015) study clip thinking as a form of everyday consciousness, suggesting ways of understanding the possibilities of overcoming (“removing”) clip consciousness and developing a new identity [14]; Yudin and N. Svishcheva (2019) study the characteristics of consumer behavior in the digital environment in the context of the formation of a new "generational thinking", substantiating the most popular categories of goods, the most effective sales channels and communication with consumers in e-commerce [16]; Teterin (2014), studying the main characteristics and ways of development of thinking in the modern information space, gives the features of human interaction with the modern information environment, describing clip thinking as a mechanism for adaptation of adolescents and young people to an oversaturated information space [15].

Thus, various aspects of the topic we are studying are reflected in scientific works, but the formation of an absolutely new life reality of humanity and, as a result, the emergence of new business environment of companies in connection with the global pandemic COVID-19, requires further study of changes in the thought processes of consumers in the direction of transformation of applied Internet marketing solutions to the needs of Internet users.

Sources and Methods. The theoretical and methodological basis of the study was scientific works on changes in human thought processes and the effective use of Internet marketing by companies. The methodological basis of the research was general scientific and special methods of economic theory. In particular, the researchers used the following methods: the method of comparative analysis and synthesis for detailing the object of study; economic and mathematical methods for analyzing user behavior on the Internet and assessing changes in their thought processes; graphic methods for visual illustration and construction of diagrams in relation to the subject of research; abstract logical methods for substantiating tasks, generalizations and summing up.

The research was carried out on the materials of Google-analytics of the Cita Lieta ltd. website at ceanocosmetics.com.

Results. Cita Lieta ltd (ceanocosmetics.com) is a well-known wholesaler, exporter and manufacturer of cosmetic products. The company uses various online marketing channels for promotion, so it was chosen as the object of research.

Modern digital technologies allow each owner of a web resource to collect analytical data about visitors and their activities on the website, and this allows companies to create databases for analytics and management decisions in the field of online marketing. From the perspective of our research, the value is the ability to assess changes in the behavioral aspects and thought processes of Internet users using the Google Analytics service. Table 1 shows the organic traffic (OT) indicators of the website. 1. Organic traffic means the number of visitors from the free search engine results.

Table 1. Attendance parameters of organic traffic and its effectivity from search engines of Cita Lieta ltd for December 2018 – 2020.

Month/Year	Segment	Users	New Users	Sessions	Bounce Rate, %	Pages/ Session	Avg. Session Duration, min	Goal Conversion Rate, %	Goal Completions
Dec 2018	Organic Traffic	754	678	1006	41,95	7,37	3,15	9,05	91
Dec 2019	Organic Traffic	649	604	835	42,16	8,00	2:43	8,26	69
Dec 2020	Organic Traffic	1714	1623	2067	62,80	4,94	2:05	4,26	88

Based on the presented parameters of organic traffic, it can be concluded that the dynamics of visits to the company's website and the number of new users was in a slow downtrend in the 2019 and in December 2019. According to the results of December 2020, the increase in the number of website visitors is 127.32% compared to the same indicator in December 2018 and 2.64 times more compared to the indicator for December 2019, which is mostly the result of marketing efforts but there may also be an impact of quarantine restrictions and the reorientation of consumers to online purchases.

Taking into account the fact that in 2020 the company was actively engaged in marketing activities for the website search engine promotion it is important to assess the dependence of the impact on the traffic growth between the onset of the pandemic and the search engine promotion of ceanocosmetics.com.

In order to compare the increase in traffic in December 2020 with December 2019, it was decided to consider the statistics of targeted search queries from Google for these periods of time, what allows to assess the degree of correlation between the increase of organic traffic and the increase of the number of targeted search queries into the website through Google organic. This data are presented in Table 2.

Table 2. Avg. monthly comparison of Google search statistics for target keywords in English-speaking countries (Ireland, Australia, UK, the United States) in English

Keyword	Dec 2019 avg monthly searches	Dec 2020 avg monthly searches	Trend, %
natural cosmetics	2400	2900	20.83
beauty products	14800	18100	22.30
organic cosmetics	1900	1300	-31.58
private label cosmetics	3600	3600	0.00
Total	22700	25900	11.55

Based on the presented data of the number of search queries from search engines comparing parameters between December 2019 and December 2020, it can be concluded that the increase in search activity by this topic is 10-15%.

Taking into account that the number of websites on the Internet is also increasing every year, then it can be concluded that the increase in traffic is largely due to the successful work of marketing regarding the company's search engine website promotion for targeted keywords (this theme is beyond the scope of this scientific work). The website's rankings in the Google search engine in 2020 has

greatly increased due to the successful work of the marketing team. As a rule, high positions should provide a higher interest of the website's visitors to the replicated information there. The reason is that such websites meet the search engine requirements, which means that they are faster, more convenient and useful, and this in itself improves the Bounce Rate and Goal Conversion Rate.

Nevertheless, based on the presented comparing parameters data of the number of search queries from search engines in Table 1, we can conclude about the increasing "fussiness" and a visitor's concentration decrease regarding the perception of information in December 2020.

Considering the behavioral aspects of visitors in the study period, one should pay attention to clear differences in the behavior of ceanocosmetics.com users until before December 2020 and during December 2020, which suggests a significant impact of the pandemic and transformation of the consumer thinking. Thus, in December 2020th, the average stay of one visitor on a website has significantly decreased. Compared to December 2018th, the average stay has decreased by 56.0%. The visitor stayed on the website for no more than 2.05 minutes. Likewise, the number of pages viewed on the website per session has dropped significantly. In 2018, this figure was 7.37 pages and only 4.94 pages in 2020. It can be concluded that the decrease in the listed characteristics occurred despite the growth of the website traffic by increasing its keyword positions in the natural search engine results.

The number of non-views of offers on the website also increased significantly (Fig. 1). Previously, no more than 42% of visitors viewed just one page of a website without taking any action, and in December 2020 this figure increased to 62.80%, which allows us to talk about significant changes not only in the behavior of visitors but also in their perception of information.

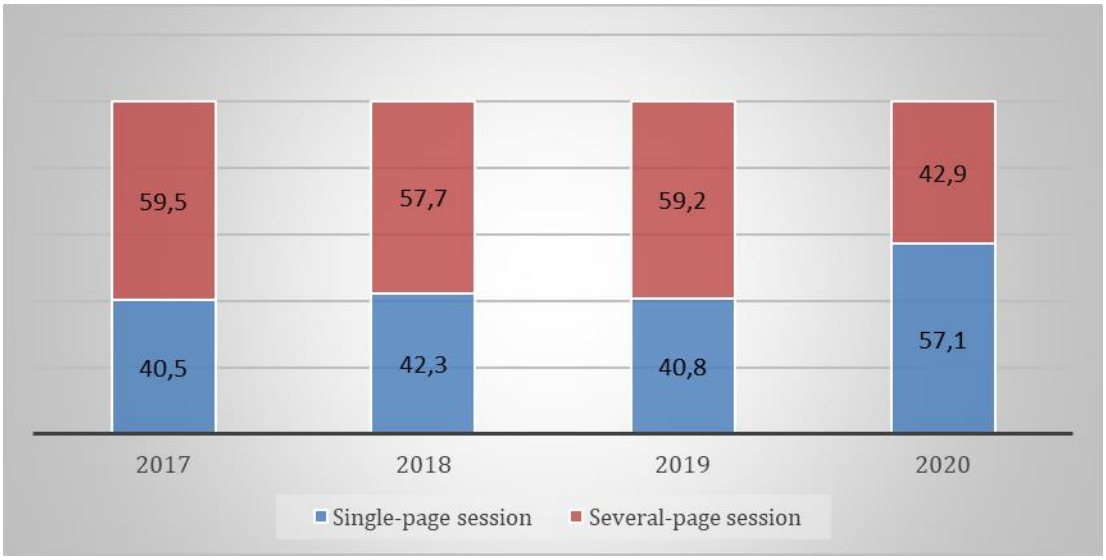

Fig. 1. Dynamics of the share of non-views on the Cita Lieta ltd website at ceanocosmetics.com in 2017–2020.

The consumer clicks on the website address in the search bar, and then, after quick browsing and figurative evaluation, closes the page without analyzing or reading the company's offer. It can be concluded if the company did not focus on search engine optimization, it can be assumed that website traffic from search engines would have remained at approximately the same level and that decreased the number of conversions from the website.

And yet it can be concluded that such behaviour of Internet users is a prime example of clip thinking (perception of the world through vivid images).

The phenomenon of clip thinking has been a subject of study by scientists for some time, firstly, in the context of influencing the formation of the consciousness of the younger generation, and secondly, in the context of searching for ways to overcome clip consciousness and develop a new identity. But for the effective functioning and high-quality Internet marketing, especially during the transformational processes of the socio-economic environment due to the global pandemic, businessmen should consider the following:

- the level of exposure of the target audience to clip thinking;
- the mechanism of thinking of consumers with clip consciousness;

– solutions thanks to which it is possible to increase the conversion rate of the website.

To answer the first question, let's check the dynamics of **Audience -> Demographics -> Age** indicators for the studied website in Table 3.

Table 3. Demographics Age indicators of Cita Lieta ltd website users at ceanocosmetics.com or December 2019–2020.

Age	Year	Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions
18-24	2019	20	18	26	69,23	2,35	1,12	11,54	3
25-34		71	65	96	45,83	7,49	2,03	10,4	10
35-44		37	31	45	37,8	7,36	4,11	8,89	4
45-54		29	26	42	33,3	12,36	3,49	4,76	2
55-64		18	15	22	45,5	5,73	1,16	0	0
18-24	2020	132	123	158	66,5	4,46	1,52	3,16	5
25-34		259	238	325	53,5	5,76	2,3	5,85	19
35-44		136	124	164	62,2	5,07	1,35	8,54	14
45-54		107	97	140	52,9	5,71	3,12	1,43	2
55-64		75	72	99	53,5	9,03	3,13	10,1	10

Looking at the data from the Table, we need to address the sharp increase in visits to the company's website in December 2020 in comparison to December 2019. At the same time, the largest increase was seen in the number of website visits by senior consumers outside the target audience of Cita Lieta ltd. Thus, the number of visitors at the age of 18-24 increased by 5.6 times, and the number of visitors at the age of 55-64 increased by 3.2 times.

By comparing the behavioral indicators of the website visitors of different age groups, we can see an upward trend in the number of non-viewings by consumers of all age groups studied (Fig. 2). So, in December 2019, there was a high level of non-views among visitors aged 18-24 years, consumers of other age categories mostly stayed on the website and paid attention not only to the home page, and in December 2020, can be noted dramatic changes in the behavior of users of all ages. At the same time, among consumers of the age group 35-44 years, based on the data, during the year of quarantine, there was the most noticeable tendency of clip thinking and the perception of only vivid images and non-textual content.

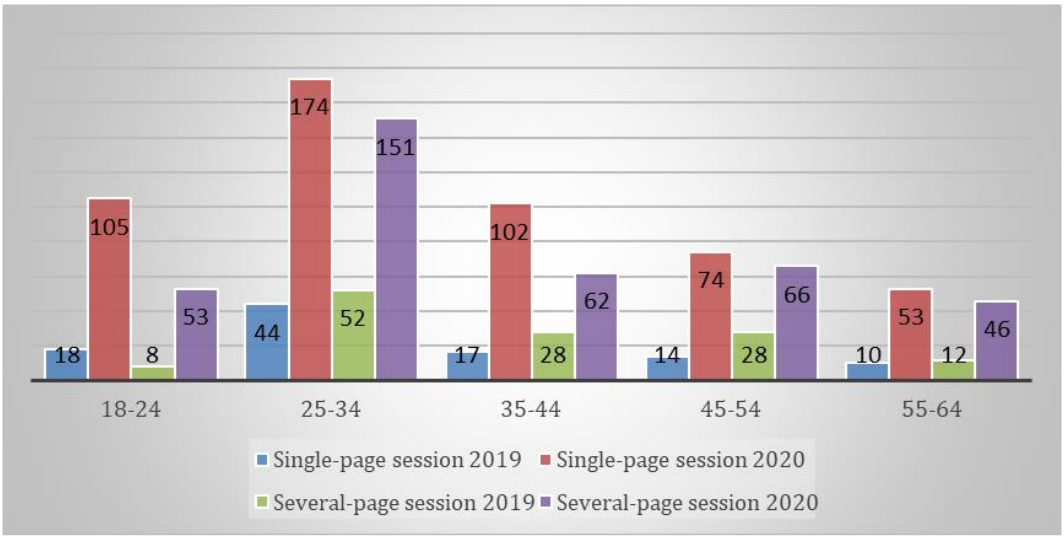

Fig. 2. Dynamics of qualitative indicators of viewing the Cita Lieta ltd website at ceanocosmetics.com for December 2019–2020 by age group

More informative is the analysis of the share of visitors of each age group in separate categories (Fig. 3).

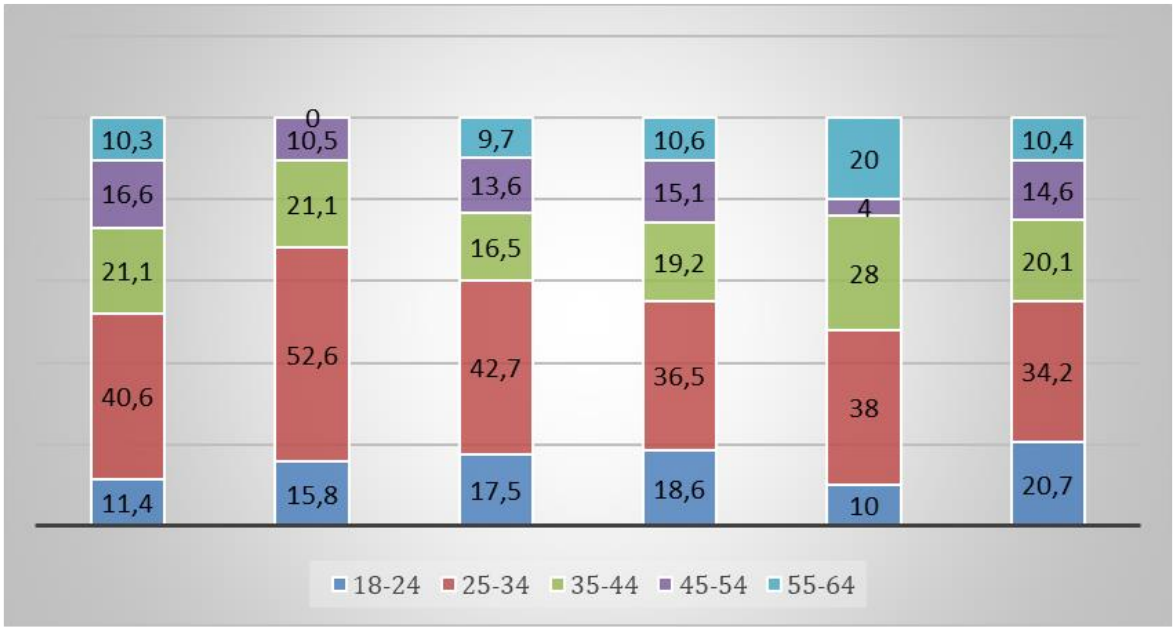

Fig. 3. Dynamics of the structure of users of the Cita Lieta ltd website at ceanocosmetics.com by age criterion for December 2019–2020.

In general, the age structure of website visitors did not change much during the study period. An important aspect is only an increase in the share of visitors aged 18-24 years. In December 2019, this indicator was 11.4%, in December 2020 it was 18.6%. In 2019, 11.4% of visitors made almost 16% of all conversions on the website, and the age group under 24 made only 10% of their total conversions in December 2020.

The target audience of the website, as we can see, is consumers aged 25 - 45 years. They made more than 70% of all conversions in December 2019 and more than 65% of conversions in December 2020. At the same time, their behavior changed dramatically, and this caused an increase in the share of conversions made by consumers in the older age group (35–44 years old).

Another important change in this period of the pandemic for the company was the inclusion of consumers over 55 to the target audience and the almost complete disappearance of people aged 45–54 from this audience. For example, people over 55 in December 2020 made 20% of the total number of conversions on the website, and in December 2019 this category disappeared.

Now let's consider the change in the interests of users of the Cita Lieta ltd website for December 2019 and December 2020 (table 3).

Based on the data in the table, we can conclude that consumers have increased demand for certain groups of goods. Consumer interest in natural cosmetics has increased and consumers have begun to prioritize online and website requests over the previous year. Consumer action and Interests: Affinity Categories (reach) show the dominance of clip thinking in December 2020.

The above analysis shows the prevalence of a new type of thinking for online consumers. Modern Internet users are more and more prone to visual, quick, superficial thinking, the so-called "clip thinking". It is believed that this type of person is characterized by speech conciseness, speech poverty, absent-mindedness, hyperactivity, attention deficit. And that is why changes are needed in the application of online marketing tools.

Table 4. Indicators of Audience → Interests → Affinity Categories (reach) Cita Lieta ltd for December 2019–2020.

Date Range	Segment	Users	New Users	Sessions	Bounce Rate, %	Pages / Session	Avg. Session Duration, min:sec	Goal Conversion Rate, %	Goal Completions
Shoppers/Value Shoppers	Dec 1, 2020 - Dec 31, 2020	486	440	620	58,87	5,61	2:49	5,48	34
Shoppers/Value Shoppers	Dec 1, 2019 - Dec 31, 2019	292	267	369	44,72	7,09	2:10	7,32	27
Beauty & Wellness/Beauty Mavens	Dec 1, 2020 - Dec 31, 2020	405	374	504	59,92	5,12	2:25	4,37	22
Beauty & Wellness/Beauty Mavens	Dec 1, 2019 - Dec 31, 2019	222	204	286	47,20	5,12	2:16	5,94	17
Shoppers/Shopaholics	Dec 1, 2020 - Dec 31, 2020	312	292	376	57,98	5,81	2:36	6,12	23
Shoppers/Shopaholics	Dec 1, 2019 - Dec 31, 2019	201	188	262	43,13	5,98	2:07	6,87	18
Beauty & Wellness/Frequently Visits Salons	Dec 1, 2020 - Dec 31, 2020	311	286	387	56,85	5,79	3:04	6,20	24
Beauty & Wellness/Frequently Visits Salons	Dec 1, 2019 - Dec 31, 2019	168	156	213	46,95	5,34	2:51	9,39	20

Discussion. As a result of the study, we can single out several key aspects of the change in the behavior of Internet users due to the global pandemic in the context of the need to change online marketing strategies for business:

– expanding the target audience as a result of increasing the time on the Internet during the day and finding ways to while away the time, as well as the simplicity of a contactless method of getting a product (service);

– an increase in the number of Internet users with clip thinking, who perceive vivid images better than text information.

Therefore, a business should consider the listed trends in the process of forming/improving online marketing strategies to ensure effective activity in the new economic realities. To this end, we can offer key steps to optimize the marketing strategy of the company as a whole:

– reallocate the budget by redirecting outdoor advertising funds to an online campaign;

– re-examine the audience and its behavior on the Internet. It is necessary to find out in which social networks users communicate, what videos they like to watch, what messengers they use, etc.;

– reduce advertising campaigns to increase reach and popularize the brand, increase more personalized advertising (especially for small and medium businesses);

– rethink all advertising campaigns for paid text ads on the web, including by keywords;

– create video content, implement brand reorientation, focus on new convenient features taking into account clip thinking trends, and the like;

− develop a new content plan taking into account new realities;
− revise the design of the website, headers, and content on the home page;
− carry out website analytics to identify sales trends in the new environment and search for opportunities;
− analyze retargeting campaigns;
− revise SMM strategies and create a new action plan for social networks taking into account clip thinking trends;
− to set up and launch A/B testing of new relevant advertising campaigns. Move to the more short, bright and vivid images into the place of previous one;
− to standardize and automate business processes to improve their efficiency in view of the growing flow of processed information;
− to plan and implement systems for accounting, control, and processing of incoming data and particularly CRM: sales funnel, data on the average bill, cross-marketing, and the like.

Conclusions. The increasing role of information and information technology has led to a new stage in the development of modern society. The global information space provides effective interaction between people, meeting their needs for goods and services through online shopping. Global informatization and modern events are changing the way consumers think and perceive information. All this lent relevance to changes in online marketing strategies that should be considered. At the present stage, online marketing must be improved and transformed in accordance with the changes taking place in the thinking of consumers.

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WORLD ECONOMIC PROBLEMS DURING THE COVID PANDEMIC

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ABSTRACT

The article discusses the main economic events during the Covid pandemic that caused significant damage to various countries, it also focuses on the main findings, parameters and numeric indicators observed during the current global economic problems, as well as on the action plans with which the countries began to tackle economic recovery, the article also implies principal challenges and recommendations, which will be important for effective planning and management of economic processes.

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2021 is a year of challenges and new difficulties created by the problems caused due to the pandemic, despite the successes and innovative projects of recent years, yet it was not possible to face the pandemic properly prepared, if we look back at the previous century, we can clearly see that there were several global events that could be equated with economic problems caused by the pandemic, such as:

- The Great Depression of the 1930s;
- The aftermath of World War II;
- The global economic crisis in 2009-2010.

It is essential that each crisis or event has its effects and should be properly assessed, although some differences and unity are observed in mentioned events and therefore, creating a forecast or plan to better meet any crisis in the future and set the pace for less economic stagnation based on proper analysis is possible.

Being aware of current changes and timely implementation of strategic analysis of the environment of how they affect internal and external processes is critically important for business.

It is also necessary to define the fact that the year caused by the pandemic showed the countries of the world a new direction with the means of which it will be possible to develop cooperation and move to a new stage of world relations, in online services, trade, services or in other fields as well. In particular, the crisis can even be considered as an incentive to start domestic production and reinforce exports, but it is also noteworthy that in developing countries, where there are more signs of corruption, different governments have spent unequal and inappropriate budget funds in order to develop domestic production.

As I mentioned above, the crisis raises new challenges and opportunities, countries that took the opportunity to participate in the global economic settlement, were able to see the problems caused by the pandemic, it might be new perspectives and opportunities, they have become and have been involved in the world competition and effectively managed to handle the economic crisis, such as attracting investment, making a good investment offer. If we look at trade relations between Japan and China, we will notice that the Japanese government has offered 87 companies to relocate their production to Japan

or Southeast Asia, due to the disruption of the supply chain and the huge losses it has caused to companies. The Japanese government has allocated $ 2.2 billion for subsidies for diversification in Vietnam, Myanmar, Thailand, other Southeast Asian countries, and Japan. One of the companies that took advantage of the subsidy and opened a factory in the northeastern city of Sendai in northeastern Japan was "Iris Ohyama", which produces masks. The reason is, of course, the recent strict regulations, high export tariffs and the weakness of the export chain caused by the pandemic[1].

The spreading area of COVID 19 has a significant impact on the world economy, therefore there are different expectations from different world organizations, the forecast of the International Monetary Fund in 2021 is as follows: The global economy will grow by 6.0% and by 4.9% in 2022[2], with inflation expected to stabilize in 2022 when it returns to pre-pandemic levels.

The global vaccination process is uneven, contributing to an unhealthy environment, re-disrupting the global economic chain and creating new risks. If we look at the research of global organizations for 2020 and compare their forecast with today's data, we will notice that we have a difference, which is largely due to the unequal distribution of resources/vaccines and other circumstances.

According to the OSCE report, world economic growth would be reduced to 2.4%[3]. And according to the analysis conducted by the UN, global economic growth would be up to 2.5%. Subject to the OECD, world economic growth will be 4.2% in 2021, while in 2022 it will decrease by 0.5% and will be maintained at the indicator of 3.7%.

According to the current data by the World Bank, the import of goods amounted to 19,007 trillion in 2018, 18,482 trillion in 2019 and decreased to 1,487 trillion in 2020 and constituted to 16,995 trillion[4]. The World Bank data on foreign direct investment in GDP are as well interesting, which runs as follows:

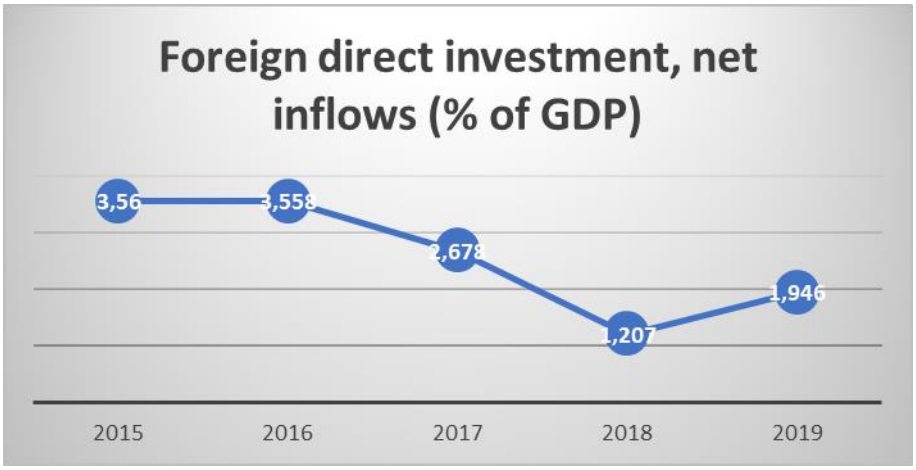

Fig.1. Source: https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS

Based on the data, we can judge that foreign direct investment used to decrease from 2016 to 2018, eventually it decreased by 2.351% and constituted to 1.207 in 2018. In 2019 there was a revival of the mentioned indicator; compared to the previous year it increased by 0.746%.

Inflation is below the pre-pandemic mark, to demonstrate it more clearly let us rely on the World Bank data where it was 2.192% in 2017, 2.421% in 2018, in 2019 the benchmark started to fall to 2.187% and in 2020 it decreased by 0.25% and amounted to 1.937%[5]. According to the Organization for Economic Co-operation and Development (OECD), inflation in the G20 countries is constitutes to 3.7%, and is supposed to increase by 0.2% to 3.9% by 2020, although economists expect price stability to be higher than 3% in the G20 countries next year. In addition, the OECD explains that inflation will be above average than it was before the pandemic.

[1] https://www.washingtonpost.com/world/asia_pacific/japan-helps-87-companies-to-exit-china-after-pandemic-exposed-overreliance/2020/07/21/4889abd2-cb2f-11ea-99b0-8426e26d203b_story.html
[2] https://www.imf.org/en/Publications/WEO/Issues/2021/07/27/world-economic-outlook-update-july-2021
[3] https://doi.org/10.1787/7969896b-en
[4] https://data.worldbank.org/indicator/BM.GSR.MRCH.CD
[5] https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG

According to the International Labor Organization, in the second quarter of 2020, compared to the second quarter of 2019, working hours were shortened to almost 400 million working hours, representing more than approximately 155 million jobs. Subject to the same data, people being unemployed because of the Global crisis problems will be 75 million in 2021, it will be reduced by 52 million in 2022 and will be 23 million. It is also noteworthy that, with the exception of the Covid 19 crisis, if we take this benchmark, we will note that the last time such indicator was observed was in 2013.

Throughout the world, the restoration of foreign trade began in 2020, after the restrictions were lifted. China played a crucial role in the restoration of the world trade, where the export, after a sharp decline earlier this year, has recovered significantly along with economic renewal and the increase of international demand on medical products. However, the world trade rate remains still significantly lower compared with the beginning of the year. According to the International Monetary Fund, world trade fell by 10% in 2020, just as it happened as a result of the 2009 financial crisis. Although exports and imports from almost all countries have declined, the losses have been unequally distributed. For countries, for the economy of which the tourism sector makes an important contribution, the forecast was highly pessimistic, conditioned by international travel restrictions on the one hand and consumer fears of being infected by the virus on the other hand. For example, China's total exports and imports are increasing every year, despite the pandemic, according to the three-quarters of 2021 data, it increased in total by 22.7%, which amounts to about $ 4.39 trillion[6]. According to the Euro area data for August 2021, export of goods increased to 1,563.0 billion Euros, an increase of 15.2% compared with January-August 2020, and import to 1,436.2 billion euros, an increase of 16.8% compared with January-August 2020.

Conclusions. It is very important for the countries to understand properly the existing economic challenges. At this stage, most of the countries have kept pace with current challenges, although there are still problems in terms of medical threats and humanitarian objectives, and there is left a limited resource for the assessment of a long-term economic impact; within the limited resources, it is rather difficult to initiate separate economic advantages and stimulation packages as well as to impose restrictions. In all cases, it's essential to determine the economic cost of these steps.

Wherever possible, it is important not to limit citizens' freedom of economic choice; the timing of crisis is very important as well as how the world can deal with it – developing countries will be considerably dependent on the scale of international assistance which they can mobilize; greater emphasis is given to the acceleration of reforms in terms of electronic governance and development of the current platform as well as the increase of their accessibility; it is necessary to comprehend international positive and negative experience not only in terms of managing the health but also economic crisis; likewise, private initiatives are essential too, i.e. whether at least the part of the business will be able to self-organize, to develop new types of services and products, which will meet current challenges better.

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THE IMPORTANCE OF GOVERNMENT PROGRAMS IN INCREASING EMPLOYMENT EFFICIENCY IN GANJA-KAZAKH ECONOMIC REGION

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ABSTRACT

The article analyzes the labor market in Ganja-Gazakh economic region, the main "State Programs for socio-economic development of the regions of the Republic of Azerbaijan" (2004-2008, 2009-2013, 2014-2018, 2019-2023) to address the employment problems of the population. directions were considered. At the same time, the current situation of employment and unemployment in the region, the interregional distribution of productive forces, the region's infrastructure, the geography of natural resources were studied. Traditional production areas for the region, preferential loans provided to entrepreneurs within the framework of financed investment projects and other issues were discussed. The measures taken to eliminate the negative impact of the global crisis on the regions of Azerbaijan since 2016, the volume of output in key sectors of the economy are reflected. The discrepancy between job supply and demand in the region's labor market, as well as the main problems arising in the process of their coordination were analyzed. The urgency of original issues such as increasing production and exports, attracting effective employment, ensuring regional development by attracting domestic and foreign investment to the regions was brought to attention. The impact of investments in the regions on the development of the non-oil sector on the country's GDP was studied. The enterprises and jobs created in Ganja-Gazakh economic region were discussed within the program. In the end, the results of the analysis were reflected and suggestions were made to eliminate the existing problems.

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Introduction. It is known that the labor market is dominated by the state, employers, workers, trade unions, etc. is the economic system in which it is involved. Modern employment policy requires sufficient support by a set of measures to ensure effective employment within the economic development of the country. Market relations, on the one hand, expand the opportunities for further growth of employment, both inside and outside the country, and on the other hand, require the development and implementation of new approaches to improving the quality of labor and economic activity. This is because the task of the state is not only to provide the able-bodied population with the opportunity to exercise their labor rights inside or outside the country, but also to regulate labor migration and the professional composition of the labor force. More complete and efficient use of labor resources in the country, taking into account the protection of the rights of Azerbaijani citizens, creating conditions for productive employment, reducing unemployment, supply and demand imbalances in the labor market, strengthening employment assistance measures are implemented through state programs. The main purpose of the state's social policy is to create favorable conditions for employment and achieve economic stability in enterprises by providing manpower, increase the quality and competitiveness of the workforce, develop training systems, and improve the employment of government agencies. In modern times, the development of socio-economic processes, the effective implementation of social functions

should be one of the main priorities of the state to support and develop the working capacity and welfare of people. Employment is not only an economic but also a very important social problem. It plays a decisive role in ensuring the living standards of the country's population, the formation and development of professional opportunities for each person, the formation of personality. The problem of unemployment, which varies in proportion to the socio-economic situation of countries, is always a problem not only in less developed countries, but also in developed and developing countries. Ensuring productive employment and social protection of the population in the regions is one of the priorities of the state. Society is interested in the employment of all able-bodied citizens, as this will increase the country's gross domestic product. The main task of socio-economic development of the country is to create productive conditions for increasing the level of labor activity of the population. The priorities of the state in Azerbaijan are to bring the country's labor legislation in line with the requirements of a market economy, increase employment efficiency in the regions and achieve socio-economic growth. The measures taken in this direction, the adopted economic and infrastructure projects, the State Programs provide a basis for ensuring the harmonization of the interests of workers, employers and the state, increasing the flexibility of labor relations.

Analysis. The state must have strategic and tactical goals when implementing employment policy at the national and regional levels. The strategic goal is to create conditions for comprehensive human development and achieve a high standard of living on the basis of increasing the efficiency of the economy. The tactical goal is to balance the supply and demand of labor on the basis of labor supply and demand, to ensure full, productive and efficient employment. The adopted projects should be aimed at strengthening the real protection of basic labor and social rights of the employee, raising living standards and eradicating poverty. The economic development strategy of the Republic of Azerbaijan has always been in the focus of the state. Based on the program "On measures to accelerate socio-economic development in the Republic of Azerbaijan" adopted on November 24, 2003, a wide range of opportunities has been created for the effective organization of creative work in the regions. After that, four “State Program of Socio-Economic Development of the Regions of the Republic of Azerbaijan” (2004-2008, 2009-2013, 2014-2018, 2019-2023) adopted consecutively were aimed at diversification of the country's economy, ensuring macroeconomic stability, large-scale infrastructure projects. It has given impetus to the implementation of the program, the creation of new jobs in the regions, the improvement of business and entrepreneurship. About 650 orders were signed to ensure socio-economic development of administrative districts and cities. In 2016, a fourfold drop in oil prices on the world market resulted in a decrease in the country's GDP. However, the state programs and projects adopted in that year stimulated the development of the non-oil sector in the regions. In total, $ 8 billion of the $ 11.7 billion investment in the country's economy was foreign investment. As a result of investments in the non-oil sector, the country's GDP has been growing (Figure 1).

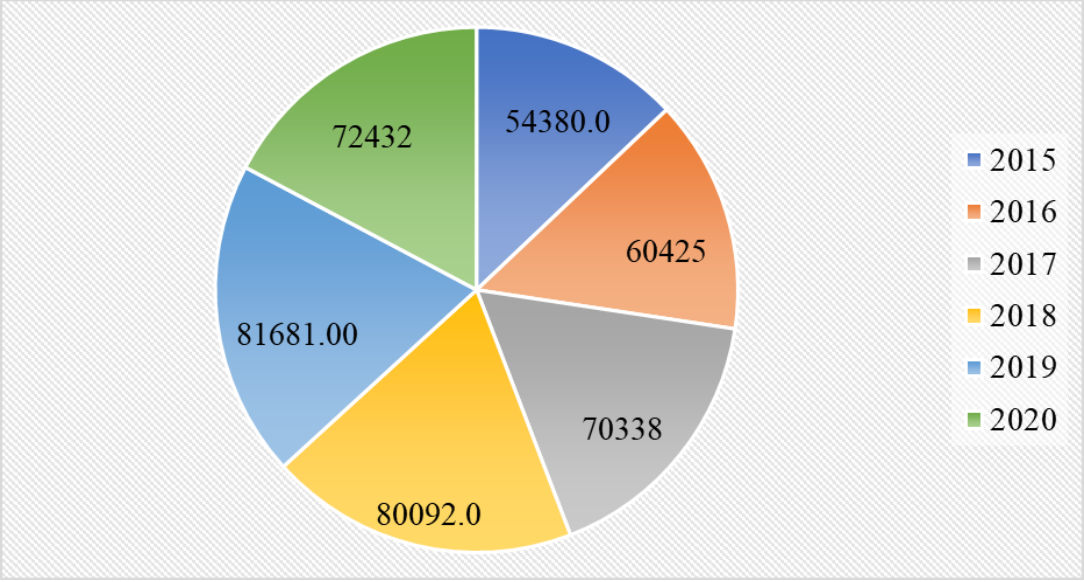

Fig. 1. Gross domestic product (GDP), total, million manat
(Source: State Statistics Committee of the Republic of Azerbaijan)

As a result of effective measures implemented in Azerbaijan based on state programs, GDP increased 3.3 times, non-oil industry 2.4 times, and agricultural production 1.7 times. While the gross domestic product in 2015 amounted to 54380.0 million manat, in 2016 it increased by 10% and amounted to 60425.2 million manat. In 2017, it increased by 14% compared to the previous year and reached 70337.8 million manat. In 2018, it increased by 12% and amounted to 80092.0 million manat, and in 2019 it increased by 2% and amounted to 81681.0 million manat. Within the framework of the implemented measures, the formation and development of entrepreneurship and business environment, which is one of the main directions of the economic development strategy, has been achieved. As a result, in 2018, the country's employment rate exceeded 75%, and more than 80% of GDP fell to the private sector. 66.6% of 950,000 state-registered business entities in the country fell to the regions.

One of the most important factors determining the location of productive forces in the region is the geography of the region's natural resources. One of the main problems in ensuring sustainable economic development of the region is the identification, use, evaluation and involvement of natural resources in the regions. Another policy is to ensure insurance and flexibility in the labor market. Full and effective use of the potential of the Ganja-Gazakh economic region, rich in natural resources, is important for the economic development of the Republic of Azerbaijan. Within the framework of the state investment programs adopted in the country in 2014-2016, two enterprises of national importance Goygol Zone Veterinary Laboratory and Artificial Insemination Center were established in Goygol region, which led to agrochemical research of agricultural lands and increase agricultural productivity. The establishment of the Takhtakorpu and Shamkirchay reservoirs within the programs provided irrigation of more than 100,000 hectares of arable land in the region, which created conditions for the involvement of unused lands in cultivation. As a result, exports of agricultural products increased by 40% compared to 2016 [6]. New jobs have been created by developing cotton, tobacco and silk industries, which are traditional for our regions. The widespread formation of entrepreneurship in the regions has been one of the main factors accelerating socio-economic development. Areas to be invested in the State Program "Socio-economic development of the regions of the Republic of Azerbaijan in 2014-2018" Implementation of irrigation works, construction of a lake on the Shamkir River, creation of an industrial park in Ganja, strengthening the material and technical base of industrial production and agricultural production , establishment of modern bakery enterprises, establishment of mining, heavy metallurgy, ore processing enterprises in Dashkesan, development of processing industry. Zeylik alunite ore deposits in Dashkasan account for 29.7% of Azerbaijan's industrial ore reserves. Also, the presence of Chovdar fields, the attraction of investments in the region has led to its involvement in economic turnover. In 2016, the GDP of Ganja city was 956.1 million manat. This figure is 18.8 million manat (2.2%) more than in 2015. There was also an increase in the average monthly salary in various production and service sectors. Thus, the salary of those engaged in trade was 363.7 manat, the salary in the field of insurance and finance was 897.9 manat, in the processing industry - 368.6 manat, in the field of public administration - 428.9 manat. However, the economic processes taking place in the global world and in the regions in 2016, the sharp decline in oil prices have had a negative impact on the macroeconomic and financial stability of our country. Economic downturns have also created problems in employment. The analysis of the current economic situation required the implementation of sustainable socio-economic reforms and the definition of a new strategy. As a solution to the problem, in 2016, "The main directions of the strategic road map for the national economy and key sectors of the economy", strategic plans were identified. Also, the adopted "Strategic Roadmap for the production of consumer goods at the level of small and medium enterprises in the Republic of Azerbaijan" was adopted as a continuation of programs implemented to ensure the competitiveness and inclusion of the economy. The strategic goal of the adopted document is to increase the impact of entrepreneurial activity on GDP, expand the business environment, increase foreign exchange reserves in the country, increase the access of entrepreneurs to foreign markets by launching products that meet international standards. The development of professional skills of SME entities, which will provide quality products and services to the regional market, and the strengthening of innovation activities have been identified as priorities.

Significant positive changes have been observed in the development of the region due to the projects implemented in the direction of financial support for the creation of new jobs. The volume of soft loans directed to the industrial, agricultural, processing and tourism infrastructure of the economy has been increased. As a result of the implementation of socio-economic development programs, in 2017, 436 enterprises were established in the Ganja-Gazakh economic region. 28857 jobs were created

at the established enterprises. AZN 11.0 million soft loans were provided from the National Fund for Entrepreneurship Support, 446 investment projects were financed. The development of entrepreneurial activity has played an important role in ensuring the effective employment of the population in the regions. Figure 2 shows the physical volume index of output in the main sectors of the economy in 2017 compared to 2016 in the Ganja-Gazakh economic region.

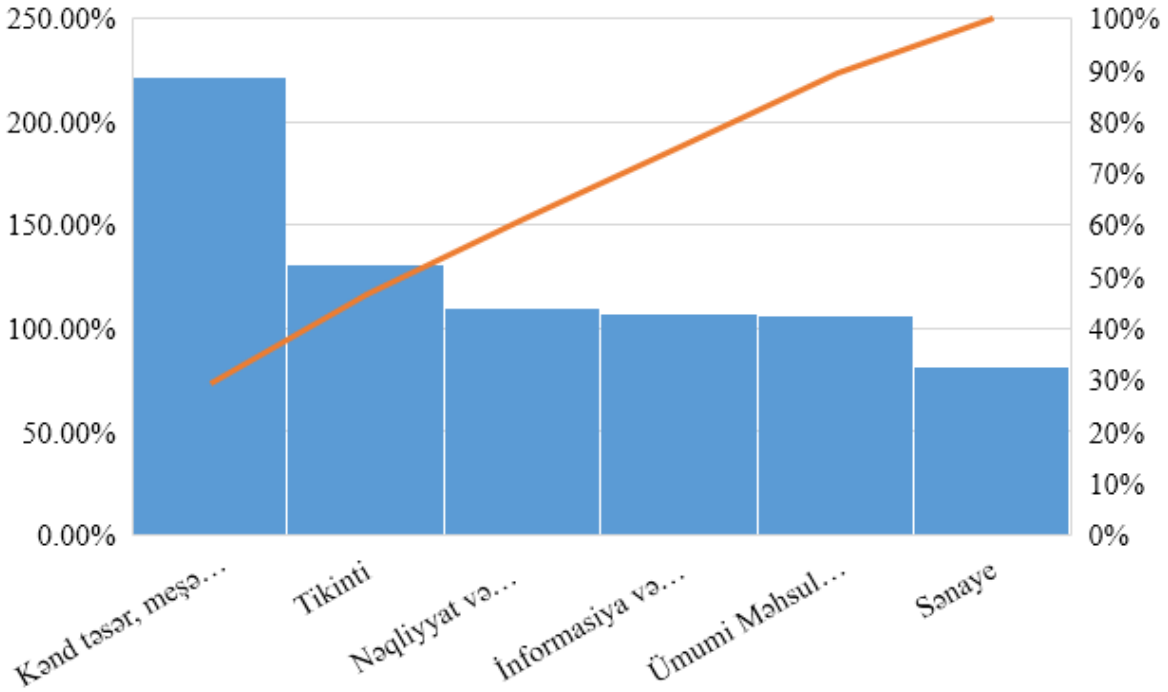

Fig. 2. Physical volume index of output in the main sectors of the economy in Ganja-Gazakh economic region in 2017, in % compared to 2016, in %

Compared to 2016, the gross output of the economic region was 106.20%, industrial production 81.30%, agriculture, forestry and fishing 110.80%, construction 131.30%, transport and warehousing 110.0%, information and communication was 106.60%. These statistics show that there has been growth in various sectors of the economy. As a result of the III State Program on socio-economic development of the regions of Azerbaijan for 2014-2018, 679.4 thousand new jobs were created by 2017, of which 502 thousand permanent jobs. 60.3% of new jobs were created in the private sector.

In 2019, 6.9% of the 192,000 jobs created in the country fell to the Ganja-Gazakh economic region. 27% of new jobs were created in the private sector. In 2019, the GDP in Gazakh region was 318011.1 thousand manat, which was 134.4% compared to 2018. The amount of soft loans issued by the National Fund for Entrepreneurship Support amounted to 22.3 million manat. 199 investment projects were financed, as a result of which 718 new jobs were created. Compared to 2018, the total volume of industrial products and services in 2019 will be 100.3%, gross agricultural output 114.2%, freight transportation in the transport sector 101.9%, passenger transportation 102.5%, postal and communication services The volume was 109.2%, and the retail trade turnover was 109%. In 2019, the total output of Ganja city was 1069.3 million manat, of which 3.2 million manat (0.3%) were agricultural products, 431.9 million manat (40.4%) were industrial products, 237.2 million manat (22.2 million manat). % organized construction and installation works. In total, 504 entrepreneurs benefited from AZN 62.8 million in soft loans under the State Programs during 2003-2019 [8]. Gross output in Shamkir region in 2019 increased by 27.8% from 2018 and amounted to 781 million 664 thousand manat.

Among the cities and districts of the republic, Shamkir district is in the top five in terms of gross output in 2019. The total output of Naftalan city increased by 22.5% compared to 2018 and amounted to 34 million 983 thousand manat, of which 1 million 514.8 thousand manat fell to the share of agricultural products. It is known that Naftalan is a resort town famous for its unique healing oil. As a result of measures taken within the framework of state programs on socio-economic development of the regions, Chinar hotel & SPA Naftalan, Gasalti health hotel, Garabag Resort & Spa, Miracle Naftalan Health Center, Magic Naftalan, Naftalan Treatment and Health Center, Kapaz Sanatorium,

Beautiful Naftalan health and tourism centers have been established. During 2016-2019, the city's expenditures were covered by revenues from modern health and tourism centers operating in the city. In 2019, the expenditures of the city local budget amounted to 2 million 656,876 thousand manat, while the revenue part of the budget included more than 130,941 thousand manat (4.4%) from local sources, the revenue part of the local budget amounted to 3 million 87,941 thousand manat. Along with the construction of infrastructure in the regions, which is one of the goals of the Strategic Roadmap for the development of the specialized tourism industry in the Republic of Azerbaijan, the implementation of targeted branding measures, organization of quality services in attractive tourist areas, professional development will increase potential tourist attraction in regions of tourism importance. In Tovuz region, the total output in 2019 increased by 11.6% compared to 2018 and amounted to 482 million 246 thousand manat. In Gadabay region, compared to 2018, the volume of gross domestic product increased by 5.8 percent and amounted to 574.0 million manat, of which 29.8% of industry, 26.2% of agriculture, 5.3% construction, 38.2% to trade and 0.5% to transport and communications. Azerbaijan International Mining Company Limited's Gold and Copper Processing Plant, Gadabay Mineral Waters LLC with an annual production capacity of 6 million liters, Anar LLC (Market Complex and Green Market), “Meh” Recreation Complex, “Kichik Qafqaz” LLC, “Dashlibulag-A” LLC enterprises are operating [9]. million 833 thousand manat, of which 141 million 467 thousand manat fell to industry, 3 million 276 thousand manat to transport and warehousing, 238 thousand manat to information and communication, and 23 million 395 thousand manat to trade and repair of vehicles. Goygol the total output of the region in 2019 was 208 million 348.8 thousand manat, of which 71.8%, i.e. 149 million 733.4 thousand manat of production areas, 28.2%, i.e. 58 million 615, 4,000 manat fell to the share of service areas. Rayo There were 3 processing and 8 service facilities. In Goranboy region, this figure increased by 9.4% compared to 2018. 21.3% of the total output of the region fell to the share of industrial products, 5.3% to transport services, 5.1% to the sphere of communication, and 3.8% to trade.

Gross output in Agstafa region increased 2.0 times annually from 2013 to 2019, respectively. At the same time, the volume of industrial production increased by 3.5 times, agricultural production by 1.8 times, and construction by 2.4 times. As a result of investments made within the framework of state projects, “Karvan-L ECO” Industrial Park, “Akkord Tekstil” LLC sewing factory, “Agstafa Agrarian Industrial Complex” LLC, “Saloglu” Furniture Factory, “Agstafa branch of “Azerkhalcha” OJSC, “ATILO” LLC's soft drinks plant operated. The total responsible output in Samukh in 2019 amounted to 159.0 million manat, including 6.0 million manat for industry, 89.4 million manat for agriculture, 20.6 million manat for construction, 3.2 million manat for transport. 0.8 million manat fell to the share of communications, and 38.9 million manat to the share of trade turnover. 110 greenhouses with an area of 77.5 hectares, as well as "Boz Dag" livestock complex, "AGRO DAIRY" Limited Liability Company, "Ulduz 2011" LLC, "Karabakh Region MKT" LLC, "West Milk" LLC, Murovdag There is a peasant farm, Livestock and Feeding Enterprise, "Region Agro" LLC.

In our opinion, it is possible to achieve effective employment and increase the economic potential of the regions through the efficient use of resources and tourism opportunities in the region, as well as the development of mining and processing industries. One of the main goals should be for the regions to be self-sufficient at the expense of local revenues, giving up state budget subsidies, taking advantage of their natural resources, economic potential and the business environment created in the country on the principle of self-financing.

General economic policy of the state on original issues such as attracting domestic and foreign investments to the regions, increasing production, employment, exports, as well as ensuring regional development, increasing research and development potential, developing new technologies, developing the competitiveness of international firms, increasing environmental protection measures frame is used. The volume of investments in fixed assets in the region within the investment projects implemented in the direction of regional investment policy arising from the main objectives of state programs on socio-economic development was 107382.6 thousand manat, which is 2.3 times more than in 2018. As a result of measures taken to produce competitive, export-oriented industrial products, the total volume of industrial output amounted to 41453.7 thousand manat 100.3% compared to the previous year. One of the strategic goals of the state program was to pursue a regional investment policy aimed at the socio-economic development of the regions, as well as to achieve development in the regions by directing investments to the non-oil sector. If we look at the volume of investments in

the economic region we analyzed, changes have been observed over the years. The volume of investments in fixed assets in the Ganja-Gazakh economic region is shown in Figure 3.

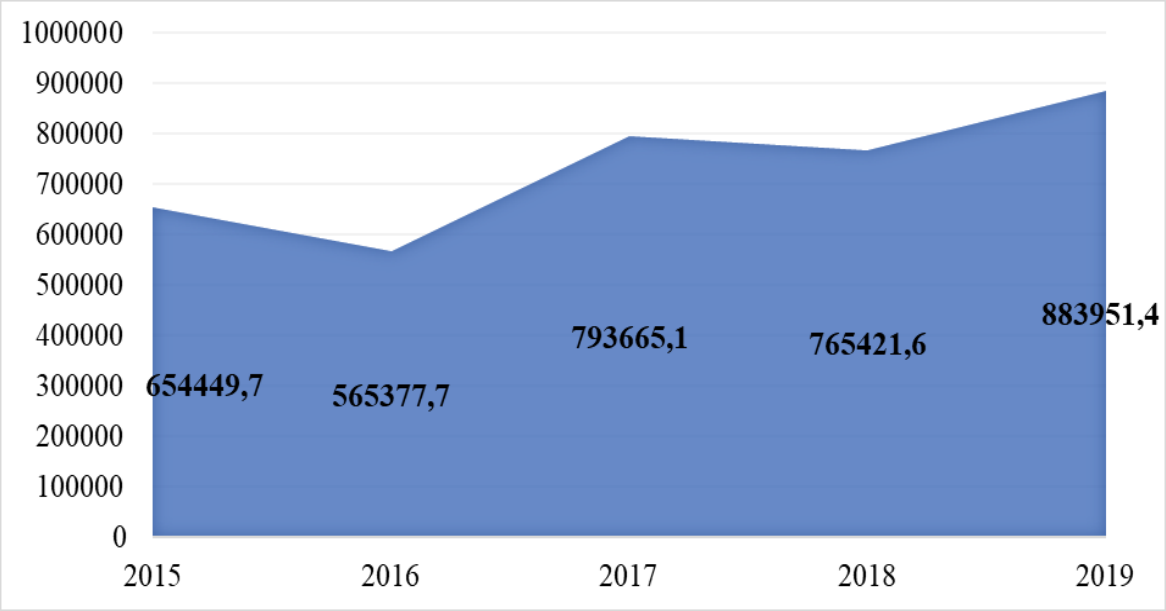

Fig. 3. Fixed capital investments, thousand manats
(Source: State Statistics Committee of the Republic of Azerbaijan)

As can be seen, in 2015, investments in fixed assets in the region amounted to 654449.7 thousand manat. However, in 2016, this figure was 565377.7 thousand manat. Compared to the previous year, 13.6% less investment was attracted in fixed assets. In 2017, more than 793665.1 thousand manat was invested compared to previous years, which is 28.8% more than in 2016. In 2018, a 3.6% decrease was observed again, 765421.6 thousand manat was invested in fixed assets. In 2019, this indicator increased by 13.4% compared to the previous year and amounted to 883951.4 thousand manat. As can be seen, investments in fixed assets in 2016 and 2018 were small compared to other years. Investments in fixed assets for cities and regions included in the economic region are shown in Figure 4.

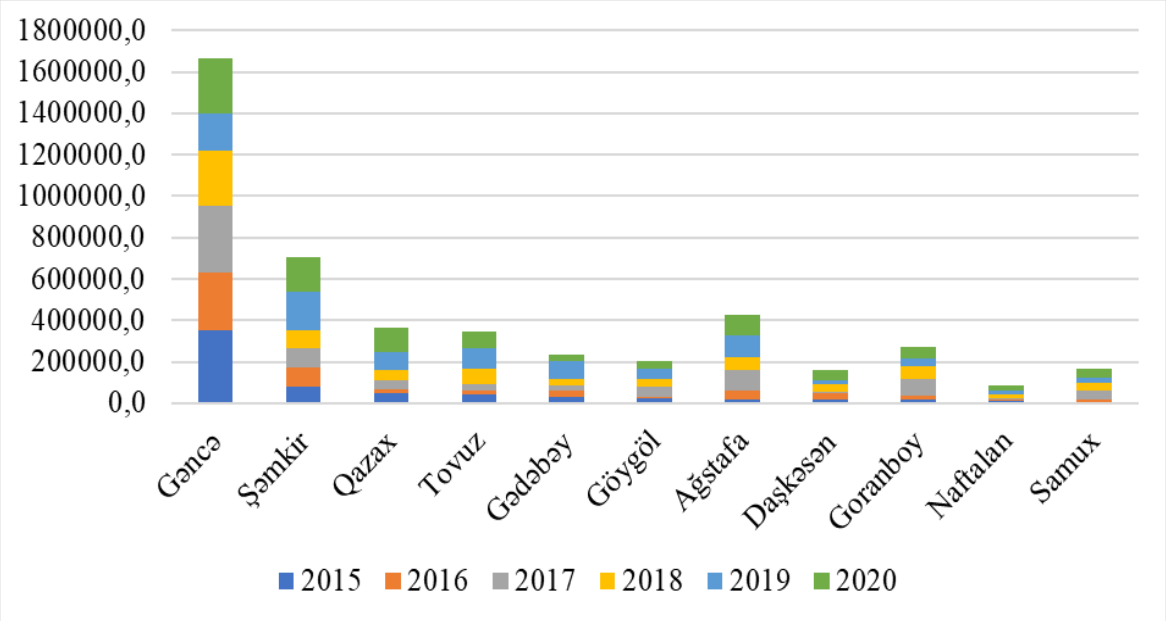

Fig. 4. Fixed capital investments by regions, thousand manats.

Based on the indicators, we can say that the largest investments in fixed assets were made in the city of Ganja. Although 355472.6 thousand manat was invested in 2015, in 2016 it decreased by 21.5% and amounted to 278893.3 thousand manat. In 2017, investment increased by 12.8% and reached 319980.7 million manat. However, in subsequent periods, there has been an annual decline in investment.

Thus, in 2018, compared to the previous year decreased by 16.6% and amounted to 266954.9 million manat, and in 2019 decreased by 32.2% and amounted to 180923.9 thousand manat. We encounter the same trend in Shamkir region. Thus, 79297.7 thousand manat was invested in fixed assets in 2015. In 2016, it increased by 17.8% to 96,433.3 thousand manat. However, over the next two years, the volume of investments has decreased year by year. In 2017, it decreased by 6% compared to the previous year and amounted to 90560.2 thousand manat, in 2018 it decreased by 6.6% and amounted to 84615.4 thousand manat. In 2019, it increased by 95.5% and amounted to 185266.1 thousand manat. In Gazakh region alone, the volume of investments in fixed assets in 2016 was a minority of 20650.5 thousand manat. In other years, there was an increase compared to the previous year. In 2015 it was 47683.6 thousand manat. In 2017, it increased by 50.4% compared to the previous year and amounted to 41651.1 thousand manat, in 2018 it increased by 18.7% and amounted to 51253.0 thousand manat, and in 2019 it increased by 38.4% and amounted to 83228.2 thousand manat. In Tovuz region, investments in fixed assets in 2015 amounted to 41359.3 thousand manat, while in 2016 it decreased by 53.3% and amounted to 19298.9 thousand manat. However, the volume of investments has increased over the next 3 years. In 2017 it increased by 42.3% and amounted to 33426.0 thousand manat, in 2018 it increased by 52.7% to 70636.9 thousand manat, in 2019 it increased by 32% to 103741.6 thousand manat. In 2015, 30847.5 thousand manat was invested in Gadabay region, in the next 2016 it was 31463.0 thousand manat, an increase of 2%. However, the volume of investments in 2017 decreased by 22.7% and amounted to 24309.5 thousand manat. In 2018 it increased by 19.6% and amounted to 30247.4 thousand manat, and in 2019 it increased by 65% and amounted to 86159.1 thousand manat. In Goygol region in 2015, this figure was 25371.7 thousand manat, but in 2016 it decreased by 67% to 8392.3 thousand manat, in 2017 it increased by 81% to 44026.6 thousand manat, in 2018 it decreased by 3.7% to 42395.0 thousand manat, in 2019, it increased by 11.7% and amounted to 48016.7 thousand manat. In 2015, 21435.2 thousand manat was invested in fixed assets in Agstafa region. In 2016, 48.8% more than the previous year 41865.4 thousand manat, in 2017 increased by 58% to 100086.2 thousand manat, in 2018 decreased by 38.2% to 61812.5 thousand manat, and in 2019 increased by 39.8% 102695.5 thousand manat. In Dashkesan region in 2015, this figure was 19103.7 thousand manat. In 2016 it increased by 33% to 28500.6 thousand manat, in 2017 it decreased by 63.6% to 10369.6 thousand manat, in 2018 it increased by 67.2% to 31708.7 thousand manat, and in 2019 it decreased by 34.4% to 20788.6 thousand manat was. The volume of investments in Goranboy region in 2015 amounted to 15800.5 thousand manat, in the next 2016 increased by 27.6% to 21821.1 thousand manat, in 2017 increased by 72% 78109.9 thousand manat, in 2018 decreased by 15% to 66235.3 thousand manat, in 2019, it decreased by 44.7% and amounted to 36629.8 thousand manat. In 2015, 9980.6 thousand manat was invested in fixed assets in Naftalan. In the next 2016 it decreased by 35.7% to 6418.8 thousand manat, in 2017 it increased by 21% to 8159.0 thousand manat, in 2018 it increased by 61.4% to 21116.5 thousand manat, and in 2019 it decreased by 20% to 16841.5 thousand manat. In 2015, 8097.3 thousand manat was invested in fixed assets in Samukh region. The volume of investments increased by 30.4% in 2016 to 11640.5 thousand manat, in 2017 by 73% to 42986.3 thousand manat, in 2018 by 10.6% to 38446.0 thousand manat, and in 2019 by 48.9% to 19660.4 thousand manat.

Conclusions. Based on world experience, we can say that regional development programs are one of the main directions of regional development. Establishing a balanced regional governance, achieving maximum efficient use of local resources and potential, forming an information infrastructure for economic entities, harmonizing scientific and technological innovations between regions, maintaining ecological balance, achieving socio-political stability should be the goals of regional development programs. Because success in the field of employment depends not only on the effective operation of interested institutions, but also on the macroeconomic policy of the state and the stabilization of the economy. In our opinion, by diversifying the country's economy and attracting foreign and domestic investment in the non-oil sector, including the processing industry, it is possible to reduce dependence on oil and gas revenues and achieve economic growth. One of the important conditions here is the establishment of economic relations between the regions. Achieving the process of increasing the share of value added in the regions, as well as ensuring the flow of investment in export-oriented sectors, expanding and improving the institutional mechanisms governing government-entrepreneur relations, expanding the scope of industrialization policy can stimulate development in the regions.

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THEORETICAL FUNDAMENTALS ON FORMING COMPETITIVENESS OF RESOURCE POTENTIAL OF ENTERPRISES IN UKRAINE

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ABSTRACT

Current functioning of an enterprise in terms of the limited resources require their efficient and rational use. The concept of economic entities' activity is a necessary factor in ensuring successful development and stable functioning. Introducing scientific methods for managing the competitiveness of the resource potential of the enterprise is essential for sustaining economic prosperity. The existing theoretical principles of forming the competitiveness of the resource potential of enterprises still need some improvement and adaptation to modern conditions of doing business.

The paper covers the concept of the competitiveness of resource potential by assessing the resource use in the economic activity of Ukraine's enterprises, the dynamics of gross domestic product, the profitability and unprofitability of Ukrainian businesses. Focus on a directly proportional relationship between efficiency of the enterprises and gross domestic product. Comparability of statistical data for different years, analysis and calculations of the use of the enterprise resources are presented in US dollars. Analyzing scientific approaches to the definition of competition, competitiveness, and competitive potential, the author's definitions of competitive resource potential and competitiveness of resource potential are proposed.

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Introduction. In an era of global and local transformations of the economy and markets, the resource potential of the enterprise is a core value for achieving a leading position in a certain market. However, challenges remain particularly with respect to the resource potential of the enterprise due to shortages and limitations of different resources. Presently, the effective use of the resource potential is essential to ensuring an appropriate profitability of economic entities, which requires the implementation of measures to manage it.

Crisis spreading in the economy of Ukraine and the world update the relevant resources, their effective use and the resource potential for each business entity.

Materials and Methods. The article includes statistical data on key indicators of the resource use in the economic activity of Ukrainian enterprises, analyzes the scientific approaches to how to define "competition", "competitiveness", and "competitive potential". Methods of bibliographic and terminological, scientific generalization, system analysis and synthesis are used in the research.

Results. The analysis of the literature sources showed that the theoretical bases for formation of the resource potential competitiveness of the enterprise are poorly researched and the relevant conceptual features are not considered.

The paper is intended to highlight both the relevance and the need to study the resource potential competitiveness of the enterprise, to improve the theoretical bases for formation of this economic category.

The statistics on the use of material and labor resources by the Ukrainian enterprises for 2010-2020 should be analyzed to generate enhanced understanding of the research importance. [28]. For this purpose, we calculated the following indicators:

- a share of material costs and services of production in total expenses;
- sold output volume per employee;
- the number of employees engaged in the production of UAH 1 million in sales.

According to the calculations of the indicators (Table 1), a share of material costs increased from 64.1% in 2010 to 71.8% in 2020. Here, we can conclude that material resources occupy almost three quarters of all resources used in the economy of Ukraine.

The calculation results on the use of labor resources are worth highlighting. Indeed, the number of employees engaged in the production of UAH 1 million in sales decreased from 2.87 in 2010 to 0.89 in 2020. These figures show a more effective use of the labor resources at the enterprises in Ukraine. The obtained indicators we presented in dollar equivalent.

The analysis of the results showed a completely different trend, namely:

- sales of products per employee increased from USD 39.26 thousand in 2010 to USD 39.80 thousand in 2020.
- the number of employees engaged in the production USD 1 million in sales increased for the period from 22.85 people in 2010 to 38.05 people in 2015 to 25.13 people in 2020.

The data in UAH and USD are presented in Fig. 1 and 2.

The results underscore the importance and need for managing the resource potential of the enterprise and its competitiveness.

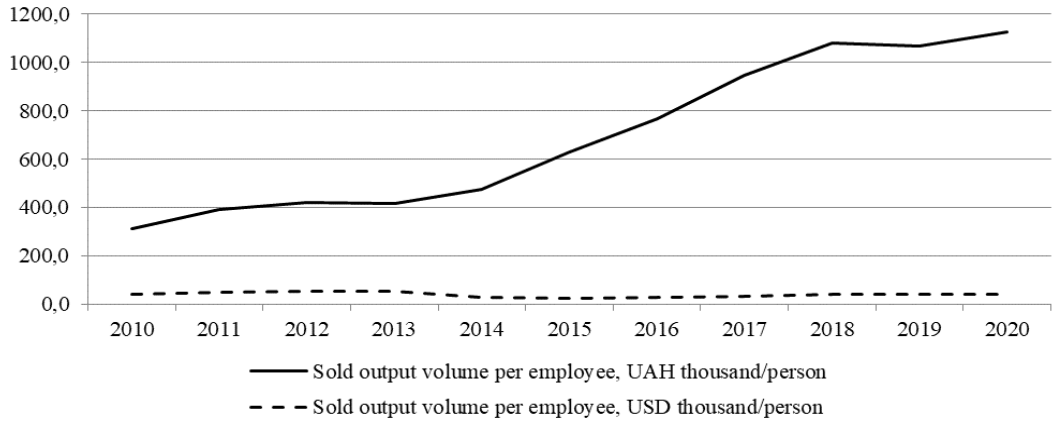

Fig. 1. Dynamics of changes in sales volumes per employee in UAH and US dollars

Table 1. Dynamics of the key resources use indicators in economics of Ukraine's enterprises

Indicators	Years										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Share of material costs and services of production in total expenses, %	64,1	68,3	74,2	72,3	72,7	73,8	74,2	75,0	74,3	71,4	71,8
Sold output volume per employee, UAH thousand/person	312,5	392,7	422,1	416,3	474,1	630,7	769,3	946,8	1078,9	1069,0	1125,2
Number of employees engaged in the production UAH 1 million in sales, person/UAH million	2,87	2,26	2,25	2,40	2,11	1,59	1,30	1,06	0,93	0,94	0,89

Continuation of table 1.

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
NBU exchange rate of the US dollar (end of year) to the Ukrainian hryvnia	7,96	7,98	7,99	7,99	15,76	24	27,19	28,06	27,69	26,82	28,27
Sold output volume per employee, USD thousand/person	39,26	49,21	52,83	52,10	30,08	26,28	28,29	33,74	38,97	39,86	39,80
Number of employees engaged in the production USD 1 million in sales, person/USD million	22,85	18,03	17,98	19,19	33,24	38,05	35,34	29,64	25,66	25,09	25,13

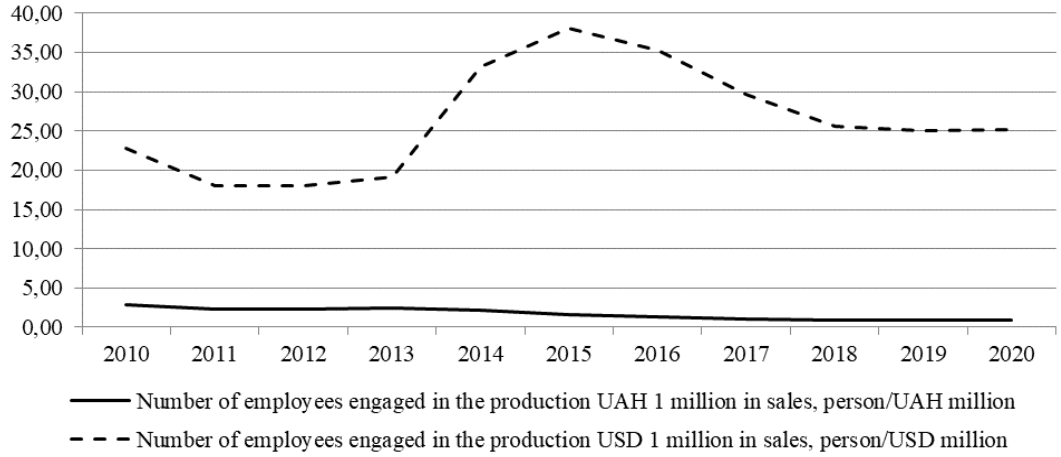

Fig. 2. Dynamics of changes in the number of employees engaged in the production 1 million in sales in UAH and US dollars

Many famous scientists for a fairly long time have studied the theory of competition due to the nature of a market economy. Since competition is the basis of market principles of management, its study has always aroused much interest from many professionals. After analyzing the existing definitions of the competition, we conclude that there is no single understanding of this economic category and the scientists differ in their definitions. There is therefore a need for citing the existing scientific approaches. The various definitions and interpretations of competition are most completely analyzed by Ukrainian scientist J. Kryuchkova [11]. The results of her work are presented in Table 2.

Table 2. Scientific approaches to definition of competition

Author	Definition
Porter M. [19]	Competition is a continuous process of constantly evolving activity, a constantly changing state in which new products, new production processes and new market segments appear.
McConnell C., Brue S. [13]	Competition is a large number of independently acting buyers and sellers in a market who are free to enter and get out of market.
Hayek F. [23]	Competition is the process by which people receive and transmit knowledge. In the market only thanks to competition the hidden becomes obvious.
Karlöf B. [9]	Competition is managing competitive advantages by the individual in order to achieve distinct competitive advantages and reach specified goals in a battle against their competitors to meet objective or subjective needs under present law.
Azoev G.L[1].	Competition is a rivalry in any field between individual legal entities or individuals (competitors) interested in achieving one goal.
Miroshnychenko O.V. [14]	Competition is a rivalry between producers; an integral feature of the market; element of the economic mechanism, the engine of economic growth, the criterion determining the type of industry market.
Yudanov A.Yu. [26]	Competition is a struggle for a limited amount of effective consumer demand on the available market segments; the struggle for the buyer's money by satisfying his need.

Source: Summarized by the author.

Hence, J. Kryuchkova believes that competition is a rivalry between producers of similar products for sale and profit as much as possible. A competition obliges firms to create a competitive product or provide a competitive service [11]. We accept the definition of competition provided by Azoev G.L. and Yudanov A.Yu. The other definitions considered in the table above are also correct but they are too fundamental and difficult to adapt to modern practical and real activities of economic entities.

Further, the concept of competitiveness exists, which is close to competition but differs in features. Both competition and competitiveness have been studied by many scientists. We collected numerous definitions of competitiveness in the research paper (Table 3).

Table 3. Scientific approaches to definition of competitiveness

Author	Definition
Karlöf B. [9]	Competitiveness is the ability to provide a better position than a competing company.
Porter M. [20]	Competitiveness is the state of an individual producer in domestic or foreign markets due to economic, social and political factors.
Shershneva Z.Ye. [24]	Competitiveness is the competency of an enterprise in relation to competitors to accumulate and effectively use the certain production potential and its individual components- technology, resources, management, staff skills, which are expressed in terms of product quality, profitability, productivity.
Dementieva A. [6]	Competitiveness is advantages and abilities of a subject in competition with rivals to achieve the purpose under laws of a specific environment (system).
Stevenson W. [22]	Competitiveness is the effective satisfying the specific customer's needs by the company offering a similar product or service like other companies.
Akimova I.M. [2].	Competitiveness is the ability of an organization to keep functioning in the chosen business, to adapt to changing conditions, to create its competitive advantages and achieve better results than competitors when the macro environment is changing rapidly.
Voronkova A.E. [4]	Competitiveness as a property of the marketing entities appears in competition and allows to occupy its niche in the market economy for expanded reproduction for covering all production costs and profits from economic activity.

Source: Summarized by the author.

Theoretical and applied aspects of the essence, formation and development of the competitive potential of the enterprises are scientifically relevant and have been studied by the leading scientists Afanasyeva M.V. [3], Gudzynski O.D. [5], Drugova O.S. [8], Mykhalchenko O.A. [15], Nyzhnyk I.V. [17], Paladova T.A. [18], Shulga M.O. [25], Yakimenko-Tereshchenko N.V. [27].

Most of these scientists agree that existing resources and competitive advantages of the enterprise as a key to stable and sufficient profitability warrant its further development and success. However, there is no single approach to defining the economic category of competitive potential. N.V. Yakimenko-Tereshchenko [27] provides the existing approaches which we believe to be the most appropriate (Table 4).

Thus, examining the resource potential as a potential opportunity for use and consumption of the resources in the economic activity of the enterprise, and considering the above approaches to the competitive potential, we can offer the definition of the competitive resource potential of the enterprise. The competitive resource potential of the business entity is a set of competitive advantages of the enterprise which is quick to adapt to changes in the marketplace and provides for using and consuming resources in economic activity.

The competitive resource potential of the enterprise is the following economic category under study. The competitive resource potential concept that refers to the competition and competitiveness varies in specific characteristics. The term therefore requires further in-depth clarification.

O. Dobykina means the competitiveness of potential as a set of parameters that determine the possibility (potential) and ability of the system to function effectively in the market in the future [21]. L.L. Kovalska and O.V. Aukhimik define the competitive resource potential of the enterprise as the ability of resources, that form a system through skillful management and effective interaction, to rival in the market, create advantages and provide socio-ecological and economic effects of their rational use [10].

P.K. Kulinichev defines the competitiveness of the resource potential as a comparative characteristic that reflects the advantage indicators of the resource utilization in the commercial process relative to similar indicators of the competing companies in market conditions [12].

Table 4. Scientific approaches to definition of competitive potential

Author	Definition
Paladova T.A., Polidi A.A. [18]	Competitive potential based on institutional, reproductive and corporate approaches is a set of capabilities of the enterprise to use internal financial and investment, production, innovation and human resources in order to create sustainable competitive advantages. It is the ability of a business to create long-term competitive advantages and adequately respond to changes in the competitive environment.
Drugova O.S. [8]	Competitive potential is resources, capabilities and competencies of the enterprise that lead to sustained competitive advantages compared to other economic entities in a certain market segment.
Mykhalchenko O.A. [15]	Competitive potential is a real and potential ability of an industrial enterprise to form a balanced set of opportunities resulting from forecasting, organization and management of all aspects of entrepreneurial activity to best meet the needs of each individual participant in business relations compared to competitors in order to maximize operation through continuous improvement of technological solutions and the use of all resources considering the specifics of activity.
Shulga M.O. [25]	Competitive potential is the external and internal capabilities of the enterprise which allow for effective competition in the market through the optimal use of tangible and intangible resources.
Afanasyeva M.V. [3]	Competitive potential is a dynamic system of possibilities of the enterprise to provide competitiveness in the trade activity. It is formed by transformation of the enterprise potential into competitive potential under the competition and defined by presence and use of actual and potential competitive advantages of the enterprise.

Source: [27].

All the above definitions differ in some way and view the competitiveness of the resource potential from different angles. We believe that O.K. Dobykina's definition is not in line with modern trends of economic development, and therefore is erroneous.

We go with the next two definitions and believe that the competitiveness of the resource potential happens provided that

- the enterprise is to involve the competitive resources in the market at a certain time, provide high-quality materials and supplies ensuring adequate price and terms of use; the human resources as high-class specialists are to meet the market requirements and effectively work in modern conditions.
- the resources are attracted and used. The most effective concept or technology for the use of available and attracted resources would ensure the maximum competitiveness of resource potential.

We present our own concept of the competitiveness of the resource potential as a competent selection, a most effective use of the resources that can compete in the market. Using the resources' functions and capabilities in economic activity of the enterprise allows to create benefits and provide economic effects from the rational use of such resources.

The formation of the competitive resource potential of the enterprise requires defining the factors of effective use of the resource potential of the enterprise [16].

The factors influencing all resource potentials can be divided into external and internal. External factors include the factors over which the company has no control. However, these affect a particular business entity and should be included in its management. Internal factors are the factors that the company can\should control and manage.

Moreover, our research shows that there is no single set of the internal and external factors for all enterprises. The external factors for different enterprises can vary within specifics of the activity, the nature of the industry, the economic development phase of the enterprise, and the stage of life cycle of goods, products, services or works, the state of market infrastructure.

The efficiency as an economic category is important at both macro and micro levels. The levels engage with each other like above-mentioned external and internal factors influencing the resource potential of the enterprise. Examining the efficiency at the macro level, we can see a direct correlation between the efficiency of the economic entities and the gross domestic product. Presently, the gross domestic product (GDP) has been experiencing a negative trend in Ukraine (Fig. 3), although a slight improvement in recent years. Statistically, [28] in Ukraine during 2015- 2016 there was a sharp decline in GDP. Later, there was a slight increase that was unable to reach the level of the pre-crisis period (2010-2011). In 2020 the coronavirus pandemic affected the indicator in totally negative value. The dynamics of the real GDP in Ukraine (% to 2020) is more clearly shown in Figure 3.

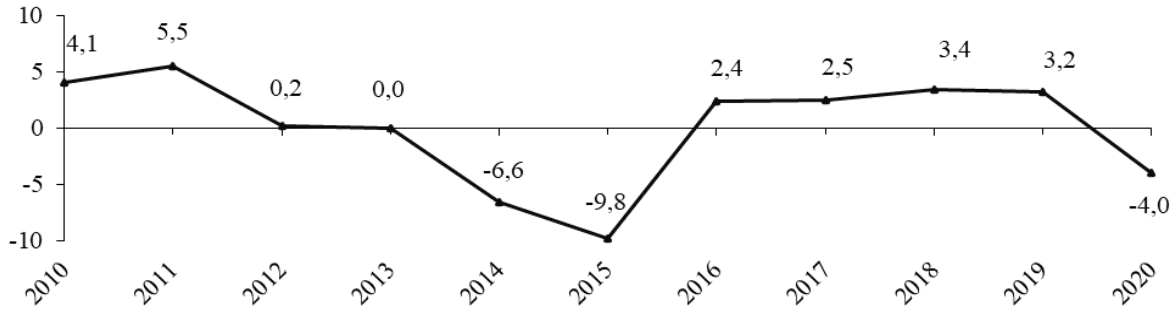

Fig. 3. Ukraine's real GDP dynamics (% to 2020).

At the micro level, the efficiency affects the profitability or unprofitability of businesses. It is advisable to analyze the dynamics of this phenomenon and Ukraine's real GDP for the same period. Based on the official statistics [28] and research in this field [7] we provide the following data (Table 5 and Fig. 4 and 5).

Table 5. Statistics on profitability and unprofitability of enterprises in Ukraine

Year	Net profit (loss), UAH thousand	Profit-making enterprises		Loss-making enterprises	
		% of the total number of enterprises	Financial result, UAH thousand	% of the total number of enterprises	Financial result, UAH thousand
2010	13 906 129,7	57,3	155 197 596,8	42,7	141 291 467,1
2011	67 797 898,9	63,5	208 896 289,9	36,5	141 098 391,0
2012	35 067 276,8	63,0	210 607 600,6	37,0	175 540 323,8
2013	-22 839 743,6	65,0	179 259 608,7	35,0	202 099 352,3
2014	-590 066 944,5	65,5	202 704 533,9	34,5	792 771 478,4
2015	-373 516 013,2	73,3	352 980 433,4	26,7	726 496 446,6
2016	29 705 020,1	73,0	396 745 355,6	27,0	367 040 335,5
2017	168 752 792,7	72,4	515 460 600,5	27,6	346 707 807,8
2018	288 305 468,1	73,9	584 358 002,5	26,1	296 052 534,4
2019	523 779 001,5	73,6	772 019 623,4	26,4	248 240 621,9
2020	68 054 905,5	71,0	599 404 728,4	29,0	531 349 822,9

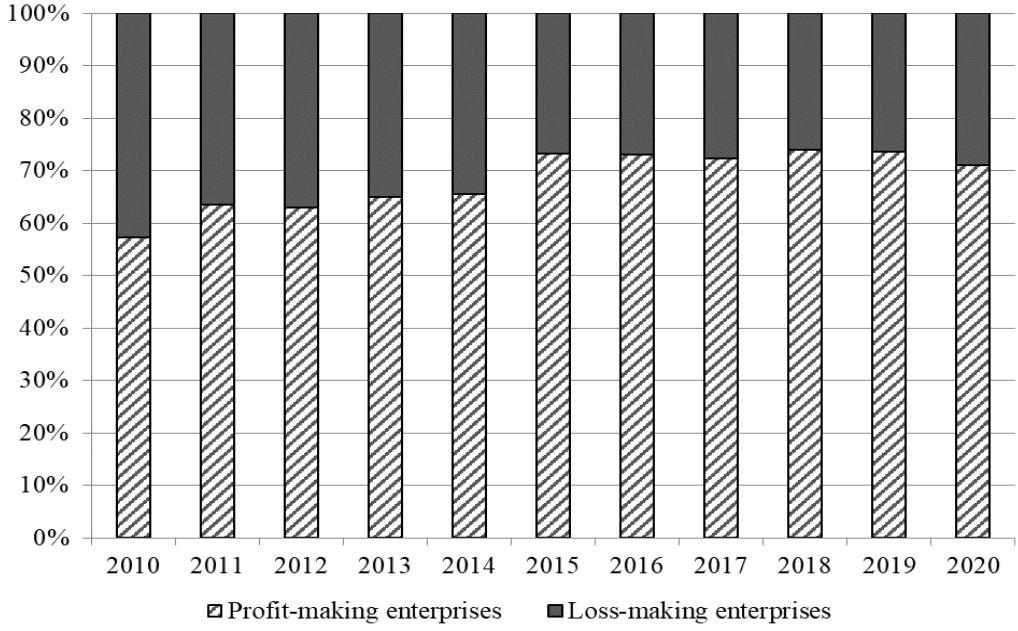

Fig. 4 Structure dynamics of profitable and unprofitable enterprises in Ukraine

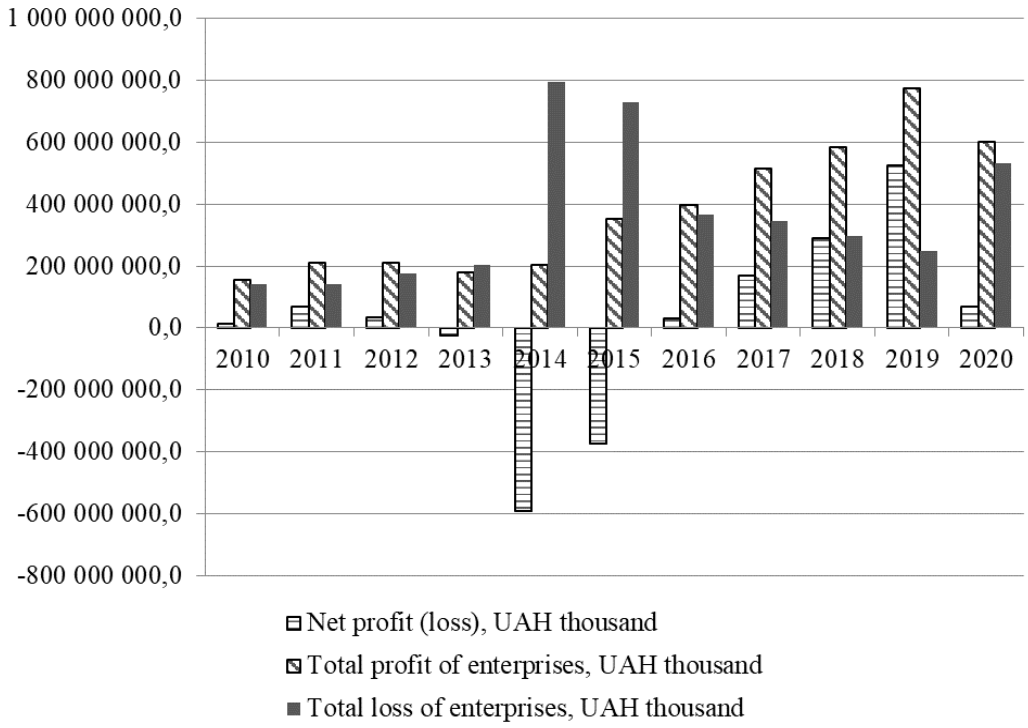

Fig. 5 Dynamics in the amounts of profits and losses of Ukraine's enterprises

Discussion. Efficiency is one of the key parameters for assessing the feasibility of the entity in any industry or a sector of industry. Examining the effective use of the resource potential of the enterprise, we define this term as a use of the available resources which ensures the greatest effect, hence, the profitability of the activity. This includes the most rational use of the entire set of the resources in a particular situation and at a particular time.

Conclusions. Depending on the circumstances, the factors of the effective use of the resource potential of the enterprise are different, hence each enterprise is to create a matrix of its own internal and external factors. The proposed approach helps optimally make use of all available resources in the enterprise and achieve the highest profitability of its activities. To sum up, the effective use and management of the resource potential of the enterprise directly depends on its competitiveness.

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CULTIVABLE LAND WATER SUPPLY AND A PERSPECTIVE VIEW OF AGRICULTURAL CROPS YIELD

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ABSTRACT

The maximum use of the potential of Georgia's agriculture and the targeted use of natural resources is vital for the development of the sectoral economy. The main guarantee of achieving a positive result for the country is the implementation of a clearly defined, effective agricultural policy aimed at competitive production, assistance in attracting financial resources, and encouragement of agricultural activities, conducting agrotechnical measures during the growing season of agricultural crops and determining the norms and terms of irrigation.

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Introduction. Optimal use of water resources and the supply of irrigation water to agricultural land lead to a maximum increase in yields and high-quality agricultural products. Watering is all the more important the drier the area. In addition, watering has a higher effect, the shallower the root system of the plant (e.g. vegetables) is spread, since the topsoil dries relatively early and a plant with a short root system begins to wilt earlier than a plant with a deep root system. In this case, the deeply rooted plant enjoys the moisture from the deeper layers.

Raise a point. When working on agricultural land, during the period of plant development and during the growing season, the accuracy of the choice of the irrigation period is of particular importance. Failure to adhere to the watering schedule will not do any good other than degrading soil properties, and studies show can significantly reduce the yield of the next crop.

Irrigation affects not only the amount of the crop, but also its quality, which, in turn, affects the microbiological processes occurring in the soil. In normally irrigated soil, the growth of microorganisms occurs more intensively, since water is one of the main factors in the development of microorganisms.

The nitrification process takes place intensively when soil moisture is about 60 percent of the total water content. In general, excess moisture has a worse effect on the nitrification process than dryness. This explains the fact that the process of nitrification on irrigated areas in the irrigated zone occurs especially in spring and autumn, and gradually slows down in summer. The process of nitrification on irrigated land lasts all summer long [1, 5, 6].

Priority zones for agricultural activities, taking into account climatic factors, can be conditionally divided as follows: 1. Lower Kartli (Marneuli and Gardabani regions, Upper Samgori

massif); 2. Part of Kakheti region (southern part of Gurjaani district, Sighnaghi and Dedoplistskaro districts; 3. The rest of Kakheti region (northern part of Gurjaani district, Sagarejo, Kvareli, Lagodekhi and Telavi districts), Part of Lower Kartli (Bolnisi and Dmanisi districts) and Tetritskaro district; 4. Part of Kartli region (Khashuri district, Samachablo) and Mtskheta-Mtianeti (Mtskheta and Dusheti districts); 5. Southern Georgia, Adigeni, Akhaltsikhe, Aspindza and Akhalkalaki districts; 6. The rest of Imereti, Irrigation systems of Guria and Samegrelo regions.

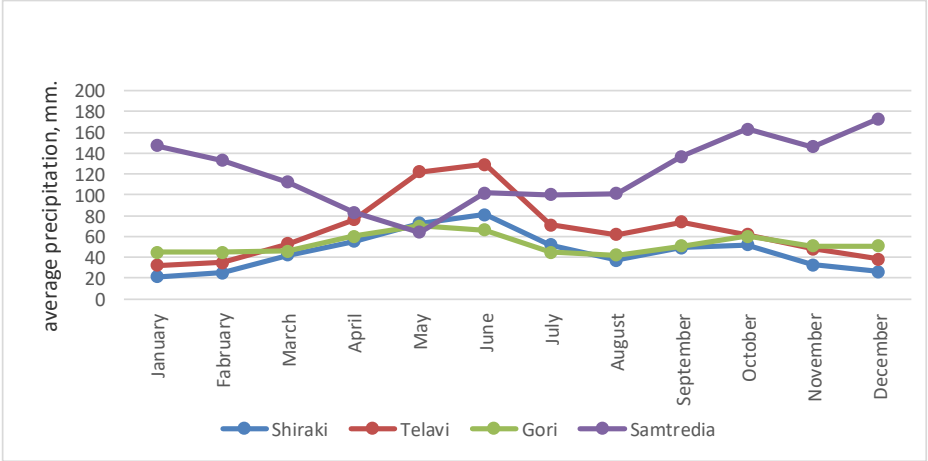

Fig. 1. Average monthly precipitation by region (average precipitation, mm)

The total water consumption by a plant (transpiration and evaporation from the topsoil) under conditions of optimal humidity in the irrigated area for optimal water consumption losses with rational use mainly depends on the lack of water in the air. As this deficit increases, so does the plant's total water consumption.

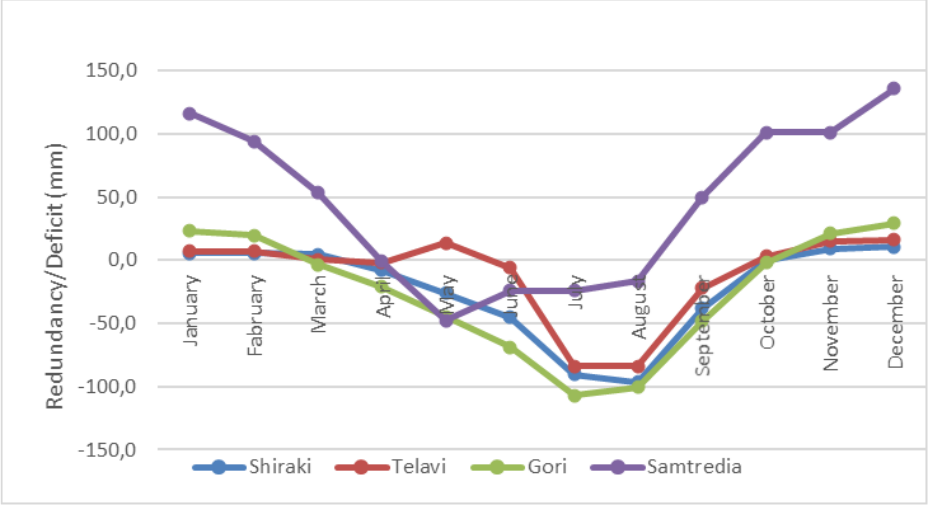

Fig. 2. Monthly water deficit for agricultural crops by region by month (surplus / deficit)

It is known that precipitation during the growing season often does not provide the above ratio between water deficit in the air and total consumption, and in fact, sometimes there is a noticeable difference between them.

The goal of watering is to minimize this difference, which requires accurate watering norms and timing.

Main part. The irrigation rate is determined by the amount of water that one hectare should receive during the next irrigation. It is clear that soil moisture changes during these periods of time. Its goal: to maintain an optimal state of moisture as long as possible and maintain it in the soil for a long time; Never reduce soil moisture to physiological limits; The duration of watering and the calendar period should be combined with further agrotechnical measures.

Irrigation should establish the desired water and air regime for the plant in the active layer of the soil (R), i.e. In the layer where the main mass of the plant's root system is spread.

The active layer depends both on the crop itself and on the intensity and depth of soil moisture. The active layer can be small due to wetting at a shallow depth. It is undesirable to artificially reduce the depth of the root system, as this will reduce the volume of soil used for the plant, and at the same time the supply of nutrients.

0.3–0.5 m for vegetable plants; 0.6–0.8 m for field plants; 0.7–0.8 m for perennial crops; Under normal moisture conditions, the main active part of the root system of fruit trees is located in a layer of 0.5 m. An active layer of 0.8 m is required for vines in Kakheti. We got an active layer of 0.75-0.80 m for perennials.

In the same plant, the active layer changes in accordance with the phases of development and for the individual culture obtained by us, the active layer is characteristic of the period of maximum development. In addition, the question arises whether it is necessary to moisten the soil deep into the active layer during watering, taking into account that part of the root system that goes deep into the active layer. Some advocate wetting the 1.0 m layer during irrigation, regardless of the crop, and even deeper. For this, in our conditions, watering of perennial plants and grasses in autumn-winter or early spring is quite enough, with an increased rate of watering, with a moisture content of about 1.2 m.

As for annual crops, they are provided with the necessary watering before sowing, taking into account the moisture of the active layer characteristic of each crop, which is quite enough for the deep layer, since during spring sowing of agricultural crops, a kind of water supply usually accumulates in the soil. In addition to watering immediately after sowing, additional precipitation is added to autumn crops during sowing, in winter and early spring (before the start of vegetative irrigation) [1, 2, 3].

Watering norms can be determined in several ways. If the soil has a certain amount of water and the maximum moisture characteristic for this soil is known, their difference will give us the irrigation norm.

The maximum moisture content is the limiting water content, which sometimes reaches 90% of the total moisture capacity. Thus,

$$m = W_{\max} - W_0 , \quad (1)$$

where m – irrigation norm m^3 / ha;

W_{max} – The maximum amount of moisture, m^3;

W_0 – Water supply in soil, m^3.

The limiting moisture capacity of the soil is r_L = 26%, the water supply of the soil is r0 = 18%, and the Volumetric weight of soil $\alpha = 1{,}3$ and active layer of this soil is $H = 0{,}8$ m, m = r_{LC} - r_0 = 26% - 18% = 8% so:

$$m = 100Hr\alpha = 100 \times 0.8 \times 8 \times 1.3 = 832 \text{ m}^3$$

The minimum moisture content in the soil is the wilting coefficient, i.e., the amount of moisture below which water supply is not available to the plant is physiologically useless. A decrease in water supply in the soil to the wilting coefficient is not allowed, it must always exceed 70% of the maximum moisture content for an agricultural crop.

In general:

$$m = r_{LC} - rdm \quad (2)$$

where r_{LC} is the limiting water capacity;

rdm – is the desired minimum.

The desired minimum moisture content per plant ranges from 70% to 90–95% of the water limit. The desired minimum for winter wheat is 80% of the water limit.

$$m=100H\alpha\ K(r_{LC} - r_{LC\ 80\%}) \quad L / s\ ha \quad (3)$$

Watering rates also affect the location of groundwater. If the latter is located close to the soil surface and irrigation is expected to provide and consolidate groundwater, which could lead to waterlogging (especially in the eastern part of the Alazani Valley), In this case, it is necessary to artificially reduce the watering rate. The irrigation rate must be artificially reduced also in cases where the soil and the lower part of the active layer or the layer immediately below it have a strong light texture, since such a layer cannot hold the calculated amount of water and will uselessly go into the depth.

$$M = m_1 + m_2 + m_3 + \cdots + m_n , \quad (4)$$

where n – is the number of waterings

The watering norm should be reduced, even if the bottom layer is very salty. The irrigation rate should be reduced in the sense that water does not reach this salty layer and, in addition, salts dissolved as a result of evaporation do not accumulate in the upper layer.

The irrigation norm should be increased when the active layer is salty. With an increased irrigation rate, temporary washing out of salts from the lower layers is possible. This is especially necessary during the germination period, if salts have accumulated in the upper layer.

The irrigation rate established by the above rule, if it is not affected by the proximity to groundwater or salt, does not need to be increased at all in the conditions of Georgia. This is due to the following circumstances: in most of our cases, soils with a heavy texture are characterized by a relatively slow fluid loss and a given irrigation rate does not reach a given depth in time, most of them remain in the upper layer with a relatively high moisture content. As a result, the bottom layer remains less moist and sometimes the water cannot reach it completely.

Therefore, taking into account this circumstance, from the very beginning we give 10-15% more water, that is, we introduce a correction factor into the formula for the calculated irrigation rate and the formula itself takes the following form:

The irrigation rate should be increased even when the theoretically calculated rate is very low (400-500 m^3) due to the limited amount of water. Irrigation at such an irrigation rate is very difficult for irrigation, requires more labor and, as we will see later, the elements of irrigation technique require unfavorable changes;

In addition to the irrigation rate, the irrigation rate is also known, which shows the amount of water consumed per hectare for the entire growing season. Depending on how many times a particular crop is irrigated, the irrigation rate also differs. The irrigation rate is equal to:

Where n is the number of irrigations

The discussed rates represent a kind of optimal rates, which often differ greatly from the actual irrigation rates in a particular area. Actual irrigation rates will depend on local conditions, available water supplies and especially the irrigation equipment.

The presence of irrigation norms allows you to efficiently use the amount of irrigation water from the water intake source.

Determination of the actual watering rates for plants and bringing them to optimal rates depends on the irrigation technique and the improvement of agrotechnical measures in general. Self-improving irrigation methods cannot be introduced if they do not match other agricultural technologies.

Table 1. Corn harvest according to irrigation rate and quantity of irrigations

Number of irrigations	Irrigation norm m^3	Harvest	
		C / ha	In%
3	1481	30,6	100,00
4	1220	47,0	153,88
6	872	55,1	180,29
9	527	67,3	220,05

Irrigation in all zones leads to higher yields, but in arid and very arid regions it is almost impossible to harvest and conduct more or less efficient agricultural production.

In addition, watering has a higher effect, the shallower the root system of the plant (e.g. vegetables) is spread, since the topsoil dries relatively early and a plant with a short root system begins to wilt earlier than a plant with a deep root system. In this case, the deeply rooted plant enjoys the moisture from the deeper layers [3, 4].

Watering rates can be determined in several ways; As the amount of water increases, the yield increases within certain limits.

Irrigation affects not only the quantity of the crop, but also its quality. It also affects the microbiological processes in the soil. The growth of microorganisms occurs more intensively in normally irrigated soil, since water is one of the main factors influencing the situation on the part of microorganisms.

One of the vital processes of microorganisms in the soil is nitrification, that is, the biological oxidation of ammonia oxygen in nitrite, followed by the oxidation of these nitrites to nitrates - nitrifying bacteria act in the soil, decomposing organic matter.

Table 2. Percentage increase in productivity as a result of water supply planning.

Zone names	Percentage increase in yield efficiency		
	Vegetables %	The rest of the crops, %	Cereals %
Moist (regions of Samegrelo, Adjara, Guria, high-mountainous regions of Imereti);	25	20	10
Moderate drought (part of the regions of Western Georgia, in the Imereti Valley);	100	70	50
Drought (Inner Kartli region, Mtskheta, Dusheti);	230	150	100
Severe drought (Telavi, Gurjaani, Kaspi, Tetritskaro, Bolnisi districts)	550	300	230

As can be seen from Table 2, in arid and very arid regions, without irrigation, it is almost impossible to harvest and conduct more or less efficient agricultural production. It should also be borne in mind that at present most of the additional agricultural products obtained as a result of irrigation in Georgia are produced on private farms, peasants, this is often not directly reflected in the country's budget, although this does not diminish its importance in providing the population with agricultural products for local agricultural production and economic development of the country as a whole [4, 5].

Table 3. Water consumption required for irrigation, depending on the texture and slope of the soil.

The mechanical composition of the soil	Slope	Consumption per meter of width in l / s
1. Heavy mechanical composition;	0,001–0,01	1,5–2,0
	>0,01	1,0–1,5
2. Average mechanical composition;	0,001–0,01	2,0–2,5
	>0,01	1,5–2,0
3. Light mechanical composition.	0,001–0,01	2,5–3,0
	>0,01	2,0–2,5

This explains the fact that the process of nitrification on irrigated areas in the irrigated zone occurs especially in spring and autumn, and gradually slows down in summer. The process of nitrification on irrigated land lasts all summer long. The nitrification process takes place intensively when soil moisture is about 60 percent of the total water content. In general, excess moisture has a worse effect on the nitrification process than dryness.

Conclusions. With the improvement of agrotechnical measures, our irrigation technique also improves, and at the same time the actual irrigation norm approaches the optimal one. The water consumption required for irrigation is taken into account depending on the texture and slope of the soil. Against the background of the general development of the economy, the irrigation water service in Georgia is gradually strengthening, and the percentage of increase in yields as a result of the planning of the water service in agriculture, it is expected that collection of payments by water users will improve accordingly and government funding will decrease. However, this depends on whether the structure involved receives the assistance needed to provide adequate services to water users in the future.

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COMPARATIVE ANALYSIS OF BIRTH PROMOTION MEASURES IN THE REPUBLIC OF ARMENIA AND EUROPEAN COUNTRIES

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ABSTRACT

The article is devoted to the study of birth promotion measures in the RA and European countries. Birth rates throughout the world have dropped dramatically in recent decades. The above-mentioned issue is highlighted in European countries. In 2019 the fertility rate was 1.5 in EU member countries. The same issue exists in Armenia. Since 1990 the birth rates have dropped dramatically in Armenia.

Various measures have been carried out and implemented in European countries to promote the birth rate. However, only a few countries have managed to increase the birth rate through state socio-demographic measures and register positive trends.

According to the domestic and foreign professional literature, there are two groups of measures of birth promotion (statutory leave and benefits) in the socio-demographic policies of each country.

Numerous measures have been developed in Armenia, but by 2014 they had more of a social than demographic component; they did not provide the desired result.

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Introduction. According to Demographic encyclopedia (2013) (p. 212) Demographic (family) policy is the targeted activity of the state bodies and other social institutions aimed at regulating the processes of reproduction of the population. The aim of the latter is to create a favorable way of reproduction for the country. Many countries around the world have adopted policies to boost the birth rate in the 21st century, as one of the challenges of the century is population aging. Childbirth and childcare benefits among demographic policies play a significant role in the context of solving social issues of society and are an important tool for achieving demographic policy goals. In addition, in many countries around the world, targeted loans have been established for young families to purchase housing, property, children's clothing, and so on. However, we have to take into account that the cost of promoting the birth rate depends on the economic capacity of each country.

Creating opportunities for the possibility of combining work and childbirth is one of the priorities of modern socio-demographic policy. As the employment rate of women has increased, countries with birth promotion issues have begun to expand the types of support provided to working parents. Various types of support can be provided, including maternity leave, parental leave, kindergarten services, flexible work schedules, etc. In this regard, the tools adopted by the International Labor Organization (ILO) have played an important role in the targeted regulation of

social rights and in clarifying the obligations of the countries[1]. It should be noted that the Conventions developed and adopted by the ILO on the protection of motherhood (Convention N3 in 1919, N103 in 1952, N183 in 2000) on childcare leave, financial benefits, and maintenance of the workplace brought positive changes in women's work and child care. Over the years, the core concerns of the ILO have been to ensure that work performed by women, in all its forms and situations, does not pose risks to the health of the woman and her child and to ensure that women's reproductive role does not compromise their economic and employment security and subject them to undue discrimination*.

In the above-mentioned context, the purpose of the research is to analyze and compare the birth promotion programs of European countries and Armenia.

Literature Review. In the literature related to the promotion of birth rate, numerous authors have argued that families will strive to have more children if job security and sustainable benefits are guaranteed[2].

According to the domestic and foreign professional literature, there are two groups of measures of birth promotion (statutory leave and benefits) in the socio-demographic policies of each country. In general, the socio-demographic policies of European countries include the following measures:

- maternity leave (minimum leave is set by ILO Convention on Maternity Protection No. 183, then revised by ILO Recommendation No. 95),
- paternity leave,
- child care (parental leave) leave and benefits,
- cash and other benefits for families with children,
- one-time childbirth allowance,
- tax benefits for families with children,
- subsidies for childcare in various areas,
- providing a flexible work schedule,
- part-time job opportunities for parents raising a child, etc.

Providing paid maternity leave is an established practice in many countries, making it difficult to evaluate its impact on the decision to have children. However, differences in its duration and periodic changes in timeframes allow economists to draw some conclusions. According to Adsera (2004), "Changing fertility rates in developed countries. The impact of labor market institutions" (p. 17-43) studies have shown a positive effect of maternity leave and according to D'Addio and d'Ercole (2005), "Trends and Determinants of Fertility Rates: The Role of Policies" and Olivetti, Claudia, and Barbara Petrongolo (2017), "The Economic Consequences of Family Policies: Lessons from a Century of Legislation in High-Income Countries." a number of researchers haven't confirmed this conclusion based on experimental data from various sources (D'Addio and d'Ercole 2005, Olivetti and Petrongolo 2017).

Studies show that paid parental leave and child benefits can alleviate the conflict between career and children rearing, moreover, the adoption of paternity leave allows distributing the childcare time more balanced between the two parents. On the other hand, parental leave has a positive effect on a child's health and development. At the same time, however, according to Andersson G., Duvander A.-Z. (2005) "Gender Equality and Fertility in Sweden: A Study on the Impact of the Father's Uptake of Parental Leave on Continued Childbearing" childcare allowances, which depend on the amount of the salary, may delay the birth of the first child until a higher income level is reached.

Researches made in Austria has shown that if labor law doesn't provide special conditions and guarantees for employees with family responsibilities, it reduces the incentives for the birth of a second or third child, while it doesn't significantly affect the likelihood of having a first child. According to Castles F. G. (2003), "The world turned upside down: below replacement fertility, changing preferences and family-friendly public policy in 21 OECD countries" (p. 209-227), the flexible schedules of working people had a positive effect on the birth rate.

[1]https://www.osf.am/wp-content/uploads/2020/08/%D5%8D%D5%B8%D6%81%D5%AB%D5%A1%D5%AC%D5%A1%D5%AF%D5%A1%D5%B6-%D5%AB%D6%80%D5%A1%D5%BE%D5%B8%D6%82%D5%B6%D6%84%D5%B6%D5%A5%D6%80%D5%A8-%D5%80%D5%80-%D5%B8%D6%82%D5%B4.pdf, p. 20:

* ILO Convention No. 183 (2000) on Maternity Protection stipulates that maternity leave must be granted for a period of not less than 14 weeks, including 6 months of compulsory maternity leave. ILO (2014), "Maternity and paternity at work; Law and practice across the world" (p. 9) https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_242615.pdf

[2]https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=EU

Thus, it can be emphasized that the relationship between socio-demographic policy and reproductive behavior is quite complex, and the results of policy effectiveness assessment are contradictory. It is quite difficult to analyze the impact of social benefits and the social assistance system, isolating them from other factors. Therefore, a positive result can be achieved only if we take into account the norms and value orientations, cultural features, social characteristics, gender stereotypes related to the role and responsibilities of men and women, etc.

Materials and methods. The theoretical, methodological, informational basis for the study was the conventions of the International Labor Organization (ILO), the legislation of the Republic of Armenia and European countries, as well as the researches of domestic and foreign authors. Measures most widely used in socio-demographic promotion policies are generally divided into two major groups: statutory and benefits (financial support, services, and tax benefits).

Taking into account the purpose of the research, the summarization, description, grouping, as well as comparative methods have been used in the paper.

Results and discussion. The birth rate in any European country does not ensure a simple reproduction of the population currently. According to the World Bank, expanded reproduction in European countries was recorded in 1965 when the fertility rate was 2.7, but in 1975 it reached the level of simple reproduction - 2.0, and it has already reached the level of narrowed reproduction since 1985 with 1.6 fertility rate[1]. The trend of narrowed reproduction in European countries in recent decades continues. According to the Eurostat database, the fertility rate in the EU member states was 1.5 in 2019 (the lowest fertility rate was recorded in Malta - 1.16, and the highest one in France - 1.86)[2]. It should be noted that only some European countries have managed to increase the birth rate to some extent through separate state social programs aimed at improving the demographic situation. It is mostly implemented the policy of increasing the birth rate in countries with narrowed population reproduction. Thus, in most the European countries (29 countries), there is a policy of raising the birth rate, in four countries - a policy of conservation, in four - a policy of non-intervention, and in seven countries there is no any state policy (Table 1).

Table 1. Types of birth policies in European countries and Armenia by birth rate[3]

	Raising State Policy	State Conservation Policy	Non - interference State policy	Lack of state policy
Europe	30	4	4	7
Northern	Latvia, Lithuania, Estonia	Iceland	Great Britain	Denmark, Ireland, Norway, Finland, Sweden
Western	Austria, Germany, Liechtenstein, Luxembourg, France	Monaco	Netherlands	Belgium, Switzerland
Eastern	Belarus, Bulgaria, Moldova, Poland, Russia, Romania, Slovakia, Czech Republic, Ukraine, **Armenia***			
Southern	Vatican City, Greece, Spain, Italy, Macedonia, Malta, Portugal, Serbia, Slovenia, Croatia, Montenegro, Hungary	Albania, Andorra	Bosnia and Herzegovina, San Marino	

Pregnancy and maternity leave is a type of policy measure that is granted in all European countries (ILO Convention No. 183), with a minimum period of 14 weeks (Table 2).

Table 2. Classification of European countries and Armenia by maternity leave, 2020[4]

Number of weeks	Number of countries	Countries
Up to 14	3	Sweden, Norway և Portugal
14-20	26	Belarus, Romania, Ukraine, Poland, Russia, Finland, Latvia, Iceland, Denmark, Lithuania, Estonia, Croatia, Malta, Slovenia, Spain, Greece, Cyprus, Germany, Switzerland, Belgium, Austria, France, Austria, France Armenia
21 and more	7	Hungary, Czech Republic, Slovakia, Bulgaria, Ireland, England, Italy

[1] https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=EU
[2] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Fertility_statistics
[3] Compiled by the authors based on the study of professional literature.
* Partly in Armenia
[4] https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/normativeinstrument/wcms_c183_ru.htm

It should be noted that although pregnancy leave is mostly half of maternity leave, there are time-specific features in some European countries (Figure 1).

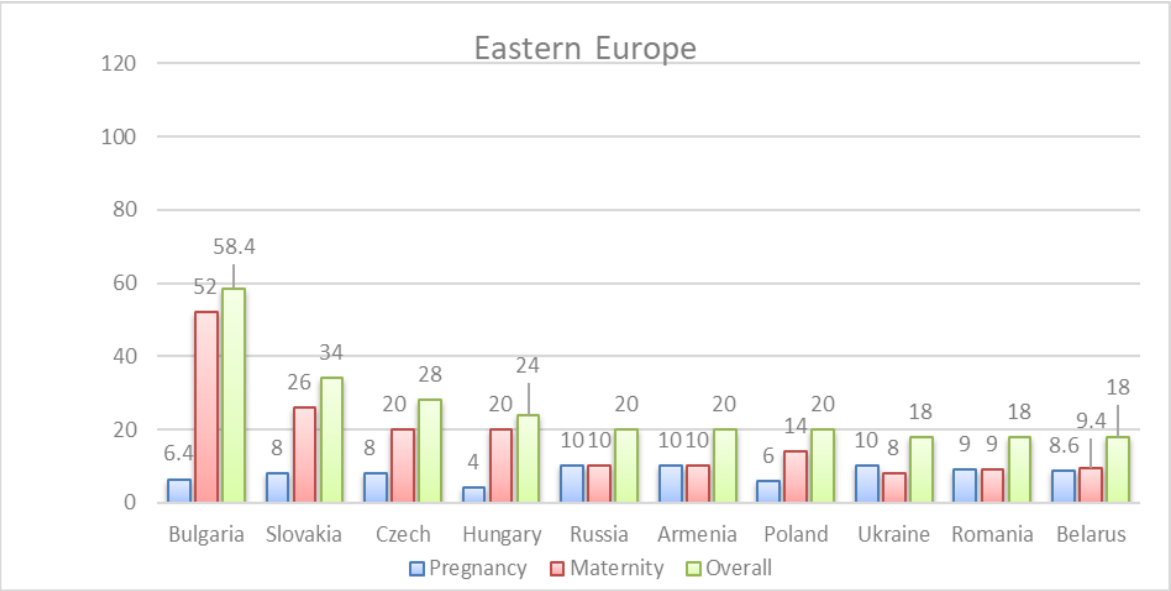


Fig. 1. Structure and duration of pregnancy and maternity leave in European countries, 2020[1]

Figure 1 illustrates that the longest leave period and the biggest gap between the countries are in the Eastern and Northern European countries. For example, the lowest leave period in Northern Europe is 7.1 weeks in Sweden and the highest one is in Great Britain with 52 weeks. As for the Eastern European countries, the leave period here varies from 18 weeks (Belarus) to 58.4 weeks (Bulgaria). Pregnancy and maternity leave are from 14 weeks to 20 weeks in Western Europe. In southern European countries, the minimum length of maternity leave is set at 10.3 weeks in Portugal and the highest at 21 weeks in Italy. The above figures were 17 weeks u. 18 weeks in Greece and Cyprus respectively.

The duration of pregnancy and maternity leave will increase in case of having one or more children mainly with 2-4 weeks in some European countries. However, there are some countries where a longer period is set for this indicator, for example, it is 7.7 weeks in Russia, in the Czech Republic and Slovakia - 9 weeks, in Poland - 17 weeks (Figure 2). Armenia is similar to Portugal in its index, and it is defined as 4 weeks in Austria, Germany, Cyprus, and the Netherlands too.

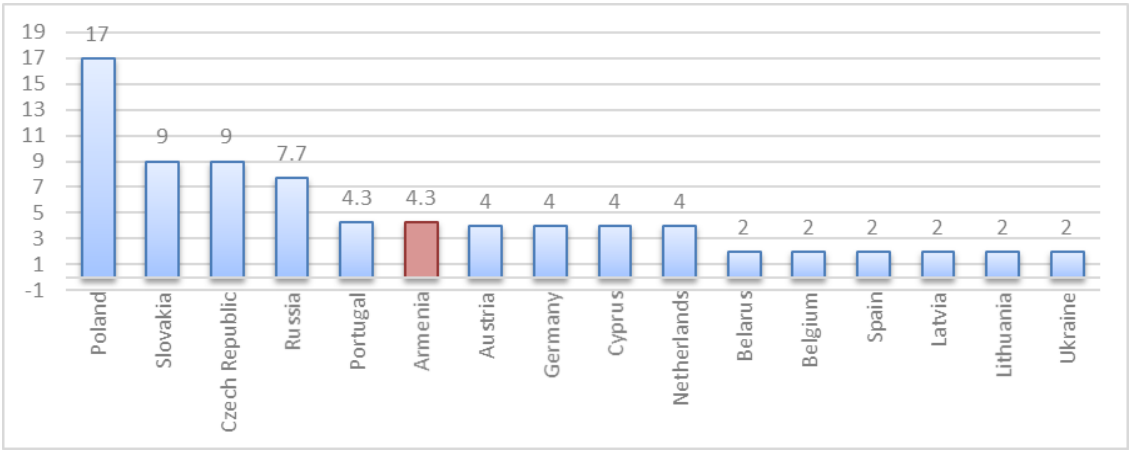
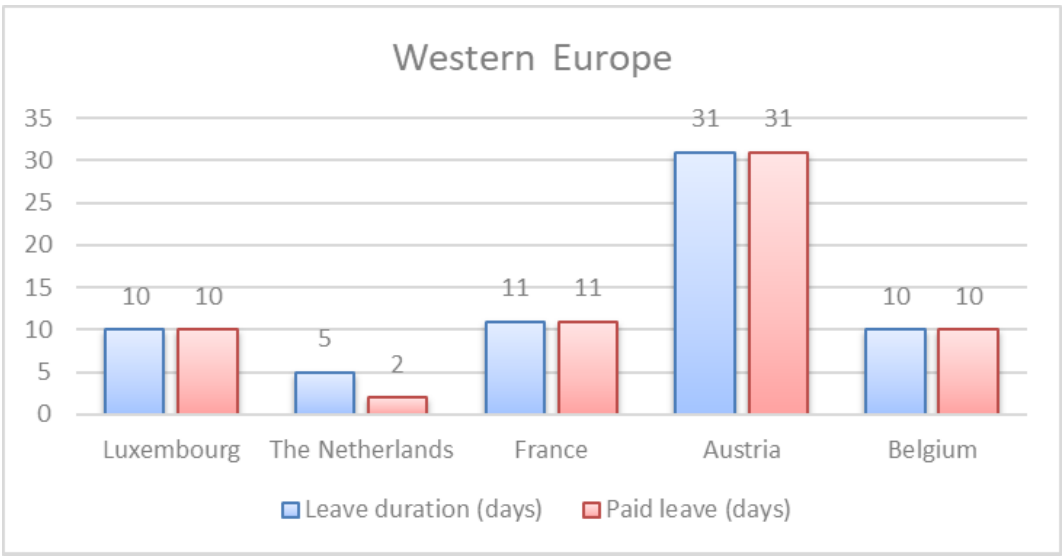


Fig. 2. Extra pregnancy and maternity leave, 2020[2]

A number of studies have shown the impact of fathers' care on children's development. Therefore, in order to involve fathers childcare, paternity leave has been legislated in a number of European countries, the duration and terms of payment of which vary according to the legislation of each country (Figure 3).

[1] Dmitrievich B. E. (2020), "Maternity, paternity and parental leave in Europe", Strategic tasks of demographic development: priorities and regional features, p. 506.

[2] Compiled according to the following source: Dmitrievich B. E. (2020), "Maternity, paternity and parental leave in Europe", Strategic tasks of demographic development: priorities and regional features, p. 506.


Western Europe
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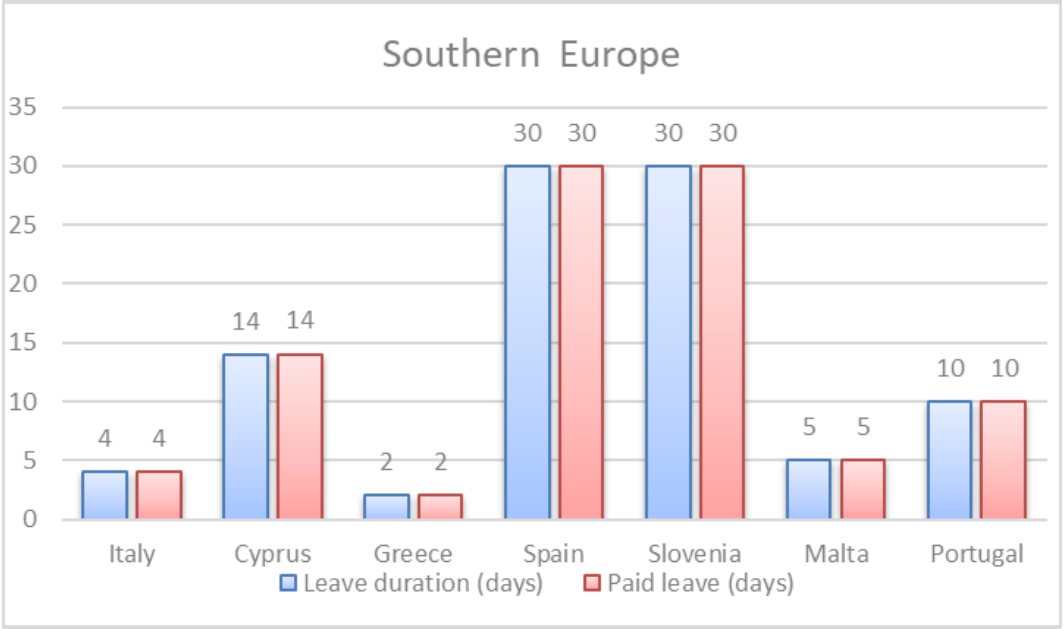
11 11
31 31
10 10
Luxembourg
The Netherlands
France
Austria
Belgium
Leave duration (days)
Paid leave (days)


Southern Europe
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2 2
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30 30
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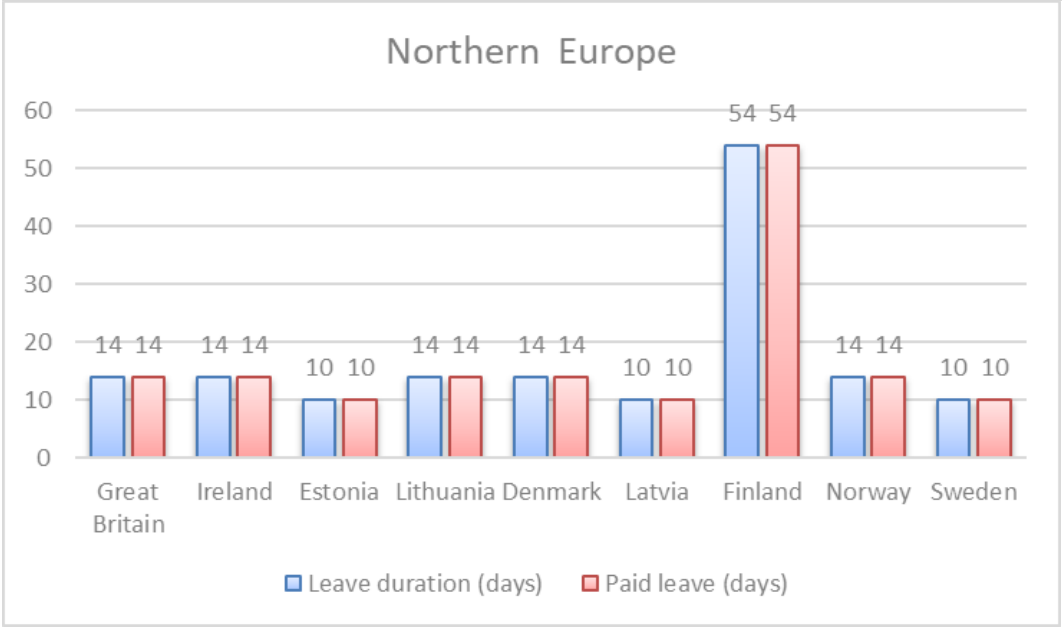
Italy
Cyprus
Greece
Spain
Slovenia
Malta
Portugal
Leave duration (days)
Paid leave (days)


Northern Europe
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14 14
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54 54
14 14
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Great Britain
Ireland
Estonia
Lithuania
Denmark
Latvia
Finland
Norway
Sweden
Leave duration (days)
Paid leave (days)

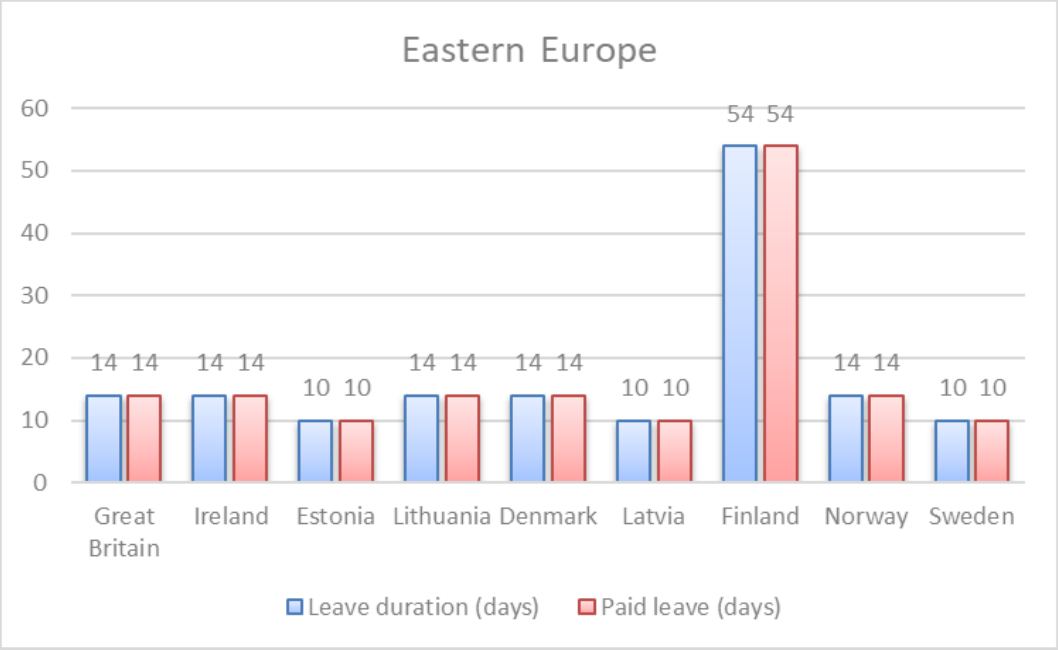

Fig. 3. Paternity leave and paid leave days in European countries, 2020

The longest period of paternity leave in Western Europe is set at 31 days in Austria and the lowest one is in the Netherlands at 5 days, of which only 2 days are paid. The shortest period of paternity leave in Southern Europe is set at 2 days in Greece, the highest one is in Slovenia and Spain at 30 days. Finland stands out from the countries of Northern Europe with 54-day paternity leave. As for the Eastern European countries, the range of the above index varies from 5 (Armenia, Hungary) to 15 days (Bulgaria).

In some European countries, the periods during which paternity leave must be used are officially defined. Paternity leave must be used for four months in 19 of the 26 European countries, in Italy for 5 months, in Ireland - 6 months, in Slovenia - 12 months, and in Finland and Poland for 24 months.

According to Article 176 of the Labor Code of the Republic of Armenia unpaid paternity leave was provided only for the husband of a woman who was on pregnancy and maternity leave, as well as for a child under one year of age until 2020. However, the total length of that leave may not exceed two months. A new change came into force on September 29, 2021, and according to RA Labor Code Article 176 at the request of the baby's father, a five-day paid leave is provided within 30 days after the birth of the child, for each day of which the employer pays the average daily wage of the employee.

Unlike pregnancy and maternity leave, there are many ways to apply for parental leave.

There are two approaches defining the length of leaves that are used in the practice of European countries regulating childcare leave:

- leave until the child reaches a certain age,
- leave, in certain lengths, expressed in days (weeks, months).

Leave for the care of a child under three years of age is provided and fully paid in Hungary, Belarus, Slovakia, Ukraine, and the Czech Republic. Only a part of the parental leave is paid in some countries, in particular 2 years in Lithuania, 1.5 years in Russia, 1.2 years in Estonia, and 1 year in Germany. The minimum period for a parent to be unemployed is two months to receive Elterngeld (child support for a non-working parent) in Germany. It is paid for one year, at a rate of 65% of net salary, but can not exceed 1800 euros per month. However, at the request of the parent, it can be extended up to 24 months, agreeing to the condition of receiving the number of benefits twice less (i.e., 900 euros per month)[1].

The French government has taken a number of measures to support the family over the past decade, including:

- child monthly allowance: is paid from the birth of the child, and in the case of the third child it reaches its maximum value,
- a guaranteed minimum level of family income has been introduced,

[1]https://www.elterngeld.net/download/Betreuungsgeld-Flyer.pdf?fbclid=IwAR1OjewBOEtRkcfGSUdX3jNf3DQcF9DUsVcOr5RNl-UfKeOUmTj-BBcAa1s

- subsidies: the lowest income families receive them and preference is given to families with three children,
- certain benefits after paying income tax. given to families depending on the number of children,
- one-time allowances given before and after childbirth, which are pretty high for a third child,
- the amount of maternity leave is set at 16 weeks and in the case of a third child - 26 weeks,
- single mothers raising children are given a guaranteed minimum income for the entire period of pregnancy and for the first three years of a child's life,
- providing loans for starting a family. A part of the loan is repaid at the birth of each child and 90% of the loan is repaid at the birth of the fourth child,
- significant compensation of families' annual expenses for children's education is provided,
- mothers with three children immediately become insured in the state pension system,
- a comprehensive education system (outside the family) has been established, ensuring children attend private or public pre-school institutions and schools (all day), especially with affordable prices.

A system of family tax benefits has been placed since2004 In France to help organizations pursue family-centered policies. It contributes the employer to take measures in the interests of the families of its employees, as they also have a material interest.

It was developed a "Demography" program in Russia for 2019-2024, which consists of several sections[1]:

- material care for families for the birth of a child,
- promoting women's employment by creating conditions for pre-school education for children up to 3 years old,
- development and implementation of a system for improving the quality of life of elderly citizens and providing regular assistance,
- creating a motivating system of a healthy lifestyle for citizens,
- creating opportunities for physical education and sports for all groups of the population. This section is also included in "The sport is the norm of life" state program.

It is noteworthy that the vast majority of the allocations in the "Demography" program are directed to the implementation of the first part of the program, that is, financial assistance to families with children, which includes maternity capital payments, monthly childbirth allowance for firstborn children, provision of monthly benefits for the birth of a third and each next child, mortgage loans to families with more than 2 children at an annual interest rate of 6%, etc. From the above mentioned we can assume that although the country wants to ensure a healthy lifestyle in the country, a good life for the elderly, but the main emphasis is on raising the birth rate.

It should be noted that a passive socio-demographic policy was implemented in Armenia until 2014, the main purpose of which was to provide various forms of social assistance to needy families. Birth promoting measures can be considered active since 2014.

The following types of leaves and benefits are defined in the Republic of Armenia in order to promote the birth rate:

- pregnancy and maternity leave,
- pregnancy and maternity benefits,
- childcare leave for up to three years old,
- childcare allowance for children up to 2 years old,
- paternity leave,
- one-time childbirth allowance,
- childcare allowance for unemployed and working mothers living in rural areas for children up to 2 years old.

A new tool will be implemented to promote the birth rate in Armenia from 2022: for the third and each subsequent child will be paid 50,000 AMD per month until the child turns 6 years old[2].

Thus, many state programs have been developed and implemented by the people in charge of the sphere in Armenia in the last decades, but they did not provide the desired results, as they mostly had a social component.

[1] https://mintrud.gov.ru/ministry/programms/demography

[2]https://www.mlsa.am/?p=29966&fbclid=IwAR2S9MdhcMcuE9vyjPJ685IVQdWaX7Lmcd72kbeZ-lb-lqUz5DolGYYamjU

Depending on the leave payment chosen model, the parent can be paid for childcare until the child reaches the age of three, but the leave period is set at two years in Austria.

The length of parental leave for childcare established in other European countries does not depend on the age of the child. In many European countries, the benefit is increased for the third and each next child.

Sherbakov, Mdinaradze, Nazarov, Nazarova (2017) note that there are also special fees for students in Sweden and The Netherlands (except the family allowance). To help the family in general means to provide the conditions for the birth and upbringing of children in harmony with the professional employment opportunities of both parents. There are legally defined benefits for families with children in Northern European countries (regardless of the condition). Canada is also adopting a general approach, but a number of other countries have begun to gradually abandon universalism and currently pursue policies to support vulnerable and needy families. In addition to the above measures, a flexible work schedule also has a significant impact on the promotion of fertility in the first years of a baby's life. The latter gives an opportunity to combine both work and child care, contributing to the preservation of women's work, and the desire to have the next child in the future.

Examining the experience of European countries, it can be noted that some of the important birth promotion measures are not included in the Armenian demographic policy. There are the following:

- family tax benefit system depending on the number of children,
- significant compensation of annual family expenses for children's education,
- compensation of expenses related to training programs for employees on parental leave.

Thus, the goals and methods of demographic policy differ from country to country; this is due not only to the historical features of the development of the countries but also to the socio-economic situation.

Conclusions. In general, the interrelationships of socio-economic and demographic processes affect the reproductive behavior of the population. It should be noted that although the demographic policy is part of the overall policy pursued by the state, however, the latter also has a special direction, that is, to create a desirable model of population reproduction through the multifaceted influence of socio-economic factors.

Summarizing the experience of a foreign country's demographic policy, we can state that the demographic problems are different in each country. Therefore, when carrying out the socio-demographic policy, it is necessary to take into account the cultural, religious, and psychological peculiarities of the country.

In general, a social birth promotion measure is considered effective if the amount of the defined benefits corresponds to the average family expenses (child care, upbringing, etc.).

It should be noted that developed and developing countries are currently allocating financial resources to the implementation of socio-demographic measures within their capabilities.

However, the real tangible results will be visible in the society and economy after some period, as current births will reach working age in at least 15 years.

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ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ РАЗВИТИЯ ЭКОНОМИКИ АТО ГАГАУЗИЯ, РЕСПУБЛИКИ МОЛДОВА: ЭКСПЕРТНЫЙ ПОДХОД (результаты исследования)

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ABSTRACT

In this article, I consider a new approach that can be used to build regional economic policy. The current situation of economic development makes new demands on the process of determining priorities in development, which later becomes key elements in decision-making at the state and regional levels. It is important to apply different methods and techniques for collecting and processing information. In 2019, a study was carried out to estimate the opinion of the expert community (50 people) about the problems and priorities of economic development in a particular region, an example of which was the autonomous-territorial unit Gagauzia (Gagauz Yeri) of the Republic of Moldova. Based on the results obtained, the author presented the results of the study and developed recommendations for the application of the expert approach in the future, when regional authorities develop strategic decisions and elaborate the documents at the regional level.

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Введение. Современное развитие экономики отдельного региона, структура отраслей, её специализация, направленность и приоритеты зависят от большого комплекса взаимосвязанных и взаимообусловленных факторов. При изучении комплекса проблем и выработке перспектив и приоритетов развития, как правило, отталкиваются от экономической политики, проводимой на национальном уровне, региональных политик, реализуемых органами государственной власти региона, уровня интегрированности и кооперирования предприятий региона с экономическими агентами других регионов в Республике Молдова и за ее пределами при выпуске готового продукта или услуги. Наряду с этими составляющими во внимание должны в обязательном порядке приниматься мнения бизнес-сообщества, представителей академической среды и экспертов, представляющих различные учреждения и организации, которые являются своего рода флагманами в формулировании концепций и направлений потенциального развития. В целях выявления экспертного мнения и было инициировано анкетирование.

Методы и сбор информации для исследования. Автор данной статьи совместно с сотрудниками Ассоциации бизнесменов Гагаузии NEXT в октябре – ноябре 2019 года провел исследование экспертного мнения по вопросам оценки потенциальных направлений развития экономики АТО Гагаузия (Гагауз Ери) Республики Молдова.

В исследовании была поставлена задача изучить представление респондентов об уровне комфортности проживания в регионе, актуальных и наиболее важных проблемах с которыми сталкивается экономика автономии, но и выяснить представления экспертов о ключевых характеристиках экономического развития и потенциальных направлениях и приоритетах в развитии экономики АТО Гагаузия (Гагауз Ери) Республики Молдова. Также предстояло изучить

мнения экспертов о том, какие на их взгляд сферы деятельности в экономике региона являются бюджетообразующими, а также значимость финансирования отдельных сфер экономики в ближайшие 5 лет в виде приоритетной поддержки из регионального бюджета автономии. На основе обозначенных направлений предстояло оценить имеющийся потенциал для развития экономики АТО Гагаузия на ближайшую перспективу. Составной частью исследования стала оценка мнения экспертов по поводу сформулированных утверждений в следующих направлениях: притока инвестиций, финансовой поддержки со стороны государства отдельных отраслей, уровня экспортной ориентации экономики региона, развития инфраструктуры поддержки развития малого и среднего бизнеса, присутствия в деятельности предприятий Гагаузии мероприятий по защите интеллектуальной собственности, оценки уровня ассоциирования бизнеса в экономике региона.

В качестве ключевого метода в процессе исследования был взят метод экспертного оценивания, который предусматривает процесс получения оценки чего-либо, на основе мнения экспертов, с целью последующего принятия решений и выбора. По мнению Орлова А.И. (1) с точки зрения планирования и прогнозирования, данный метод относится к интуитивным методам.

Райзберг Б.А., Лозовский Л.Ш., Стародубцева Е.Б. (2) дают следующее определение экспертной оценки – количественные и качественные (обычно в баллах или порядковых номерах, рейтингах) оценки процессов и явлений, экономических величин, показателей, выполняемые экспертами на основе суждений.

В нашем исследовании приоритет был отдан индивидуальным экспертным оценкам, полученным в ходе анкетирования.

Эксперты при принятии решений и ответов на поставленные вопросы руководствовались следующими методами: метод ассоциации, метод векторов предпочтений, метод фокальных объектов.

Эмпирическую базу проведенного опроса составила выборка, в которую вошли в качестве экспертов: руководители и сотрудники, работающие в региональных и местных органах власти, представители бизнес Ассоциаций и Торгово-Промышленной Палаты РМ филиала по АТО Гагаузия, действующих проектов и структур, оказывающих поддержку малому и среднему бизнесу в регионе, представители Комратского Государственного Университета и 2-х колледжей (Светлый и Комрат), 6 неправительственных организаций, взаимодействующих с предпринимателями Гагаузии. Полный список задействованных 50 экспертов, вовлеченных в опрос в разрезе учреждений и организаций и численного состава представлен в Таблице 1.

Таблица 1. Список респондентов для оценки потенциала по развитию экономики АТО Гагаузия в разрезе учреждений/организаций

№ п/п	**Название учреждения/организации**	**Количество человек**
1	*2*	*3*
1	Главное управление экономического развития и туризма	3
2	Главное управление АПК	3
3	Главное управление строительства и инфраструктуры	2
4	Проект RBISC	3
5	ТПП РМ филиал по АТО Гагаузия	3
6	Ассоциация сельхозпроизводителей Гагаузии	3
7	Ассоциация пчеловодов Гагаузии	3
8	Ассоциация овцеводов и козоводов Гагаузии	1
9	Народное Собрание Гагаузии	1
10	Бизнес инкубатор Ч-Лунга	1
11	Экономический факультет КГУ (преподаватели кафедр)	5
12	Комратский колледж	2
13	Светловский аграрно-технологический колледж	2
14	ИнноЦентр КГУ	2
15	Администрация ЗСП Валканеш	1
16	Администрация Субзоны ЗСП Валканеш «Промышленный парк Комрат»	1
17	Ассоциация женщин Гагаузии	1
18	Ассоциация многодетных матерей и женщин предпринимателей VESTA	1
19	Агентство регионального развития АТО Гагаузия	2

Продолжение таблицы 1.

1	*2*	*3*
20	Примария мун. Комрат (отдел малого бизнеса)	1
21	Примария с. Авдарма	1
22	Примария с. Конгаз	1
23	Агентство занятости Комрат	1
24	НПО Центр региональных инициатив	1
25	Ассоциация производителей столового винограда Гагаузии	1
26	Pro-Europa НГО	1
27	Независимый Центр Журналистики в Гагаузии	1
28	Ассоциация бизнесменов NEXT	1
29	Фонд Стратегических инициатив Гагаузии	1
	Итого:	**50**

Источник: *составлено автором в процессе проведения исследования*

Анализ состава респондентов по критериям.

Прежде, чем представить результаты исследования, охарактеризуем портрет респондента-эксперта.

1. По половому признаку. Всего в анкетировании приняли участие 50 человек, в том числе 29 женщин или 58,0%, и 21 мужчина или 42,0% (Рис. 1).

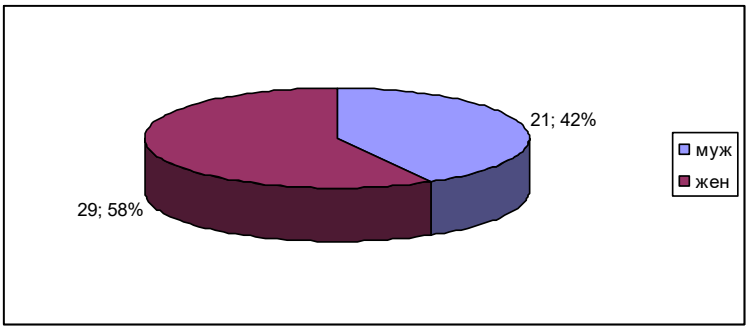

Рис. 1. Состав респондентов-экспертов по половому признаку.
Источник: составлено автором по результатам обработки анкет.

2. По уровню образования. Проводя оценку респондентов-экспертов по уровню образования, общая картина имеет следующий вид (Рис. 2): 39 человек или 78,0% имеют высшее образование, 6 человек или 12,0% неоконченное высшее, 2 человека или 4,0% окончивших докторантуру и имеющих степень доктора в экономике, 2 человека или 4,0% среднее специальное образование, 1 человек или 2,0% среднее образование.

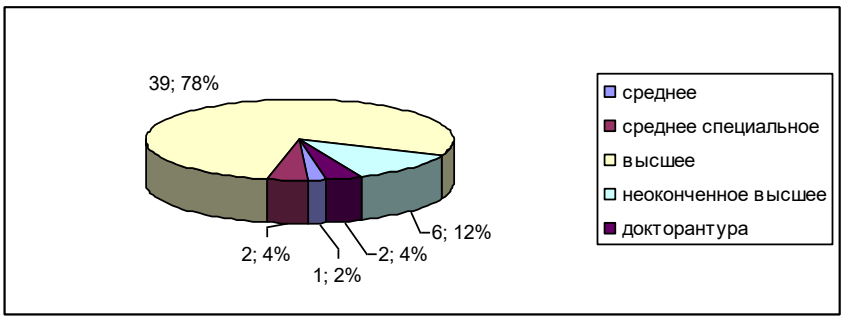

Рис. 2. Состав респондентов-экспертов по уровню образования.
Источник: составлено автором по результатам обработки анкет.

3. По возрасту. Респондентам было предложено отметить в анкете принадлежность к одной из 3-х возрастных групп. По результатам обработки анкет были получены следующие результаты: к возрастной группе от 31 до 55 лет относятся 28 человек или 56,0%, от 18 до 30 лет 17 человек или 34,0%, и старше 55 лет 5 человек или 10,0% (Рис. 3).

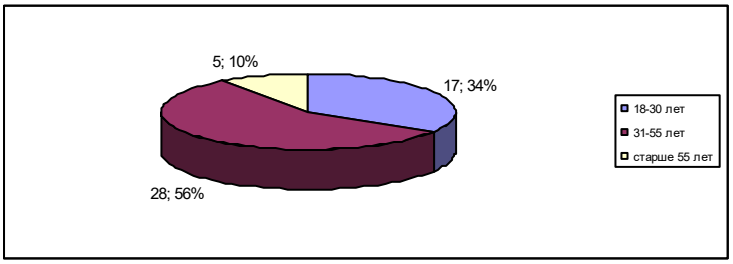

Рис. 3. Состав респондентов-экспертов по возрастному признаку.
Источник: составлено автором по результатам обработки анкет.

4. По территориальному признаку. При формировании выборки экспертов, автор исходил прежде всего из принципа вовлечения конкретных экспертов, работающих в организациях и учреждениях, приведенных выше. Вместе с тем, также немаловажным признаком являлся территориальный охват. В результате в анкетировании приняли участие представители 8 населенных пунктов из 26 населенных пунктов АТО Гагаузия, что составило 30,77% (Рис. 4). При этом эксперты проживают в 3-х городах: Комрат, Чадыр-Лунга и Вулканешты, 5 сел: Конгаз, Копчак, Кирсово, Светлый и Ферапонтьевка.

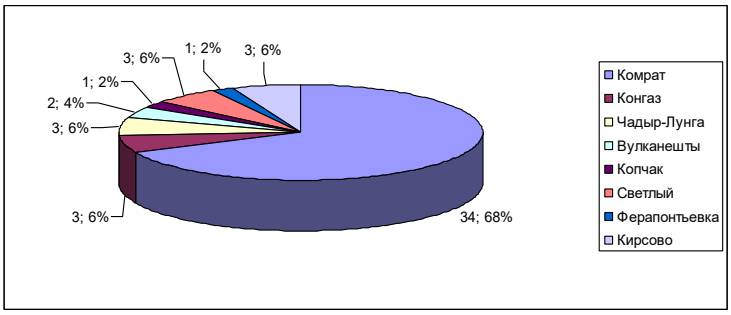

Рис. 4. Состав респондентов-экспертов по территориальному признаку.
Источник: составлено автором по результатам обработки анкет.

Естественным стало преобладание в выборке экспертов из Комрата – 34 человека или 68,0% в силу концентрации органов власти и организаций/учреждений в столице автономии, по 3 человека или по 6,0% из Чадыр-Лунги, Конгаза, Кирсово, Светлый, 2 человека или 4,0% из Вулканешты, и по 1 человеку или по 2,0% из Копчака и Ферапонтьевки. Если же оценить охват в целом по всем населенным пунктам АТО Гагаузия, то 8 населенных пунктов из 26 составляет 30,77%.

Анализ результатов исследования. Для изучения мнения экспертов о проблемах и перспективах развития экономики АТО Гагаузия в анкету были включены 6 вопросов, в том числе вопрос № 5 предусматривал оценку взглядов экспертов по 6 утверждениям.

На вопрос «На Ваш взгляд, насколько, в общем, людям сейчас комфортно жить в АТО Гагаузия?» необходимо было дать однозначный ответ, выбрав один из вариантов ответа. Полученные ответы представлены на Рис. 5.

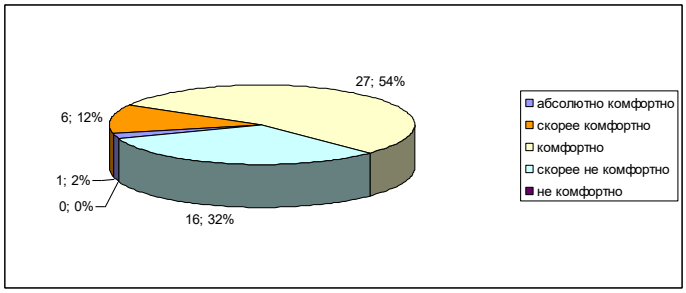

Рис. 5. Оценка уровня комфортности проживания в АТО Гагаузия.
Источник: составлено автором по результатам обработки анкет.

Всего 1 человек или 2,0% отметили, что условия проживания для людей в регионе абсолютно комфортные, 6 человек или 12,0% посчитали их скорее комфортными, 27 человек или 54,0% указали, что условия проживания комфортные и 16 человек или 32,0% отметили, что

условия скорее некомфортные. Ни один из экспертов не выбрал ответ о том, что условия проживания не комфортные. Обобщая все полученные ответы, следует отметить, что большинство экспертов дали положительную оценку условиям проживания в населенных пунктах автономии.

Важной составляющей в процессе оценки проблем и потенциала экономики региона является выявление бюджетообразующих отраслей или сфер деятельности. Данное направление позволяет также определить потенциальные приоритетные отрасли, а также позволяют сделать вывод о задействованных ресурсах, которыми обладает регион. Так на вопрос «Какая из сфер деятельности сейчас является бюджетообразующей для экономики АТО Гагаузия?», эксперты должны были дать 1 ответ, отмечая, конкретную отрасль экономики. На Рис. 6 представлены обработанные и представленные в виде диаграммы ответы экспертов.

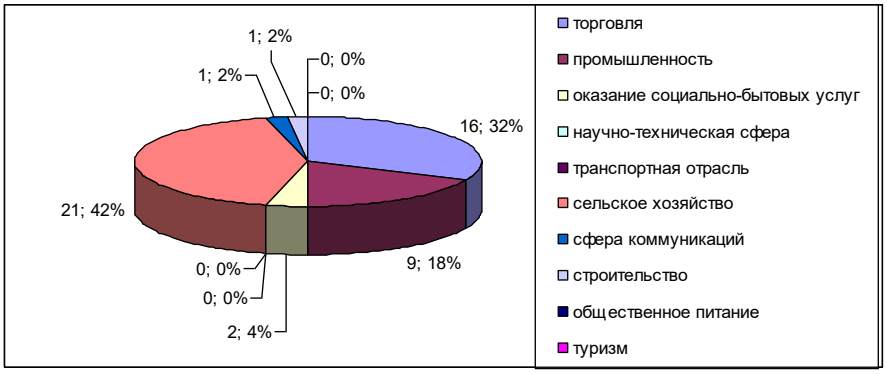

Рис. 6. Отрасли экономики региона с точки зрения наполнения бюджета АТО Гагаузия. Источник: составлено автором по результатам обработки анкет.

Из 10 отраслей экономики региона, предложенных автором исследования для оценки, эксперты отметили только 6 отраслей, при этом ответы распределились следующим образом: Абсолютное большинство экспертов отметили отрасль сельского хозяйства, как главную с точки зрения поступлений в бюджет региона, это отметили 21 эксперт или 42,0%. На втором месте с точки зрения бюджетообразования расположилась отрасль торговли, которую отметили 16 экспертов или 32,0%, на третьем месте оказалась промышленность о которой указали 9 экспертов или 18,0%, на четвертом месте отрасль «оказание социально-бытовых услуг» отметили 2 человека или 4,0%, и на пятом месте расположились сфера коммуникаций и строительство, которые были отмечены 1 экспертом или 2,0% соответственно. Не попали в поле зрения экспертов такие отрасли, как научно-техническая сфера, транспортная отрасль, общественное питание и туризм. Можем предположить, что полученные оценки экспертов основаны на имеющейся у экспертов информации о направлениях развития экономики АТО Гагаузия и доходных статьях бюджета региона, а также складывающихся тенденциях развития.

На вопрос 4. «Какие из перечисленных проблем Вы считаете наиболее важными и актуальными для развития экономики АТО Гагаузия?» экспертам было предложено отметить не более 3-х вариантов ответа. В итоге было получено 148 ответов или 2,96 ответа от 1 человека. Результаты ответов были сведены в итоговую таблицу (см. Таблица 2) с определением удельного веса каждого ответа в общем итоге и выведением на основе этого рейтинговой оценки в порядке убывания.

Ни один из экспертов не дал ответа о том, что в экономике региона вообще отсутствуют проблемы, а также о том, что в регионе плохое транспортное обеспечение и в результате в анкетах были отмечены 16 вариантов ответов, в том числе 1 собственный ответ, приведенный экспертом, касающийся развития животноводства – отсутствие рынков сбыта на мясо МРС, брынзу, шкуры и шерсть. Вместе с тем, из 15 стандартных ответов, предложенных для выбора в анкете, отметим 7 наиболее актуальных проблем в экономике, согласно рейтингу:

1. высокий уровень миграции населения 39 человек (26,35%);
2. невысокий уровень доходов населения 29 человек (19,6%);
3. высокий уровень цен на энергоносители 16 человек (10,81%);
4. высокая налоговая нагрузка на бизнес 12 человек (8,11%);
5. коррупция во власти 11 человек (7,43%);
6. низкий уровень менеджмента и подготовки руководителей предприятий 10 человек (6,75%);
7. отсутствие высокотехнологических производств в экономике региона 7 человек (4,73%).

Таким образом, эксперты, отмечая проблемы в экономике региона, охарактеризовали различные стороны и элементы, определяющие, с одной стороны, сложности ведения бизнеса в регионе, а с другой стороны, содействующие развитию факторов конкурентного преимущества экономики в случае, если перевести их из категории проблем в плоскость характеристик и составляющих потенциала. В будущем возможным продолжением изучения проблем развития экономики АТО Гагаузия может стать проведение оценки проблем не только на мезо-уровне, но и на уровне отдельных населенных пунктов региона.

Таблица 2. Сведения о наиболее важных и актуальных проблемах в развитии экономики АТО Гагаузия (экспертный обзор)

№ п/п	Проблемы	Количество ответов, чел	Удельный вес, %	Рейтинг, место
1	невысокий уровень доходов граждан	29	19,6	**2**
2	высокий уровень миграции населения	39	26,35	**1**
3	плохие условия труда на предприятиях региона	1	0,68	**11**
4	высокий уровень цен на энергоносители	16	10,81	**3**
5	отсутствие необходимой инфраструктуры (водоснабжение, канализации)	4	2,7	**9**
6	плохое транспортное обеспечение в регионе	0	-	**-**
7	плохая экологическая ситуация	1	0,68	**11**
8	высокий уровень изношенности основных фондов на предприятиях региона	1	0,68	**11**
9	отсутствие высокотехнологических производств в экономике региона	7	4,73	**7**
10	низкий уровень производительности труда у работников в регионе	6	4,05	**8**
11	коррупция во власти	11	7,43	**5**
12	отсутствие качественных дорог, соединяющих населенные пункты региона	4	2,7	**9**
13	отсутствие доступа к финансовым ресурсам для развития бизнеса в регионе	2	1,35	**10**
14	высокая налоговая нагрузка на бизнес	12	8,11	**4**
15	отсутствие инфраструктуры поддержки малого и среднего бизнеса в регионе	4	2,7	**9**
16	низкий уровень менеджмента и подготовки руководителей предприятий	10	6,75	**6**
17	никаких проблем	0	-	**-**
18	другое: отсутствие рынков сбыта на мясо МРС, брынзу, шкуры и шерсть	1	0,68	**11**
	Итого:	**148**	**100,0**	**-**

Источник: составлено автором по результатам обработки анкет.

Составной частью анкеты стало изучение мнения экспертов по различным утверждениям. В целях изучения мнений экспертов о различных сторонах реализации экономической политики на уровне региона, было предложено высказаться о согласии или несогласии с отдельными утверждениями, характеризующими, происходящие процессы в АТО Гагаузия. Всего было сформулировано 6 утверждений, и вариантами ответов были от «не согласен» до «абсолютно согласен», обработанные результаты ответов представлены на Рис. 7-12, приведенные ниже.

Эксперты, оценивая утверждение «Для экономического развития АТО Гагаузия нужно привлекать больший поток инвестиций» дали следующие ответы: 24 человека или 48,0% «Абсолютно согласны», 14 человек или 28,0% «Скорее согласен», 11 человек или 22,0% «Согласен» и 1 человек или 2,0% «Скорее не согласен».

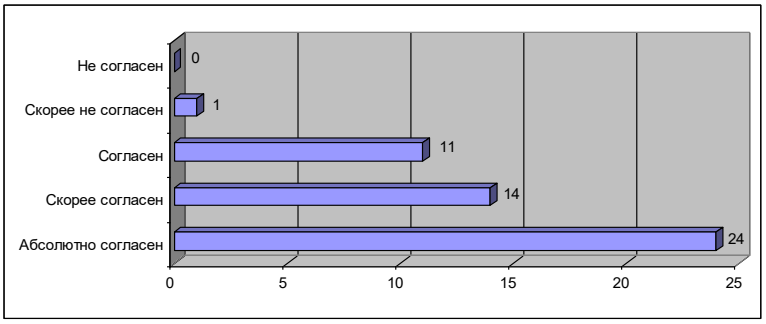

Рис. 7. Оценка экспертов о необходимости привлечения инвестиций для развития.
Источник: составлено автором по результатам обработки анкет.

Таким образом, все эксперты, отвечая на данное утверждение, отметили факт недостаточности на данный момент объема инвестиций, привлекаемых для развития региона.

На утверждение «Для экономического развития АТО Гагаузия необходимо увеличить объемы финансовой поддержки конкретных отраслей со стороны государства» были получены следующие ответы (Рис. 8): 14 человек или 28,0% ответили «Абсолютно согласен», 22 человека или 44,0% «Скорее согласен» и 14 человек или 28,0% «Согласен». В данном случае эксперты полностью солидарны с представителями бизнес-сообщества региона, которые практически на всех форумах, конференциях и круглых столах высказывают свое мнение о недостаточной поддержке со стороны государства (национальных и региональных органов власти) различных отраслей экономики.

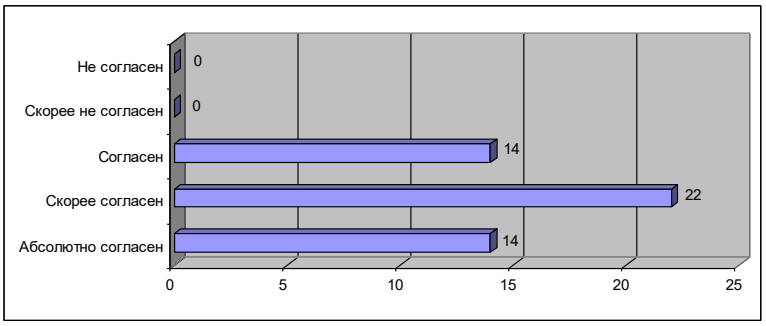

Рис. 8. Оценки экспертов о необходимости увеличения финансовой поддержки отдельных отраслей экономики региона со стороны государства.
Источник: составлено автором по результатам обработки анкет.

Следующее утверждение касалось оценки внешнего вектора направленности развития отраслей экономики региона. Экспертам было предложено ответить согласны ли они с утверждением «Экономика АТО Гагаузия является экспортно-ориентированной».

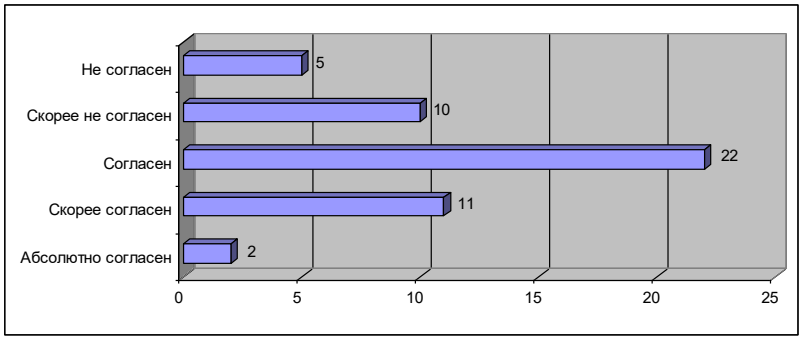

Рис. 9. Оценки экспертов об уровне экспортной ориентированности экономики региона.
Источник: составлено автором по результатам обработки анкет.

Здесь мнения экспертов разделились, так 2 человека или 4,0% ответили «Абсолютно согласен», 11 человек или 22,0% «Скорее согласен», 22 человека или 44,0% «Согласен», 10 человек или 20,0% «Скорее не согласен» и 5 человек или 10,0% «Не согласен».

Результаты ответов экспертов на утверждение «В экономике АТО Гагаузия не достаточно присутствует инфраструктура поддержки малого и среднего бизнеса» были обработаны автором и приводятся на Рис. 10.

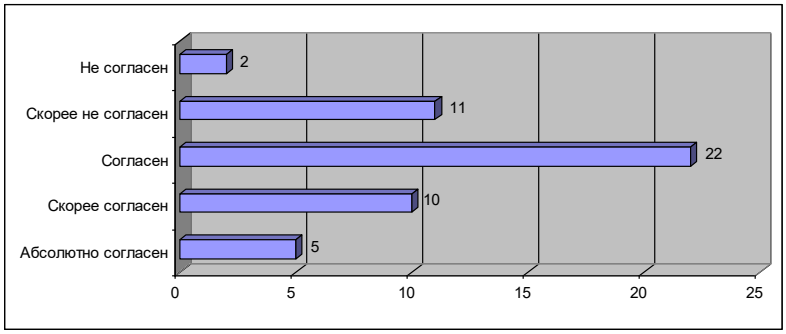

Рис. 10. Оценки экспертов об уровне развития в регионе инфраструктуры поддержки малого и среднего бизнеса.
Источник: составлено автором по результатам обработки анкет.

37 человек или 74,0% практически согласились с данным утверждением, считая, что в регионе не достаточно развита инфраструктура поддержки предприятий малого и среднего бизнеса (бизнес-инкубаторов, бизнес центров, консалтинговых компаний, бизнес-акселераторов, технологических парков, фондов поддержки бизнеса, Инноцентров, маркетинговых и учебно-деловых центров, центров поддержки экспорта, центров трансфера технологий, агропромышленных и промышленных парков, центров прототипирования и промышленного дизайна и т.д.), при этом 5 человек или 10,0% ответили «Абсолютно согласен», 10 человек или 20,0% «Скорее согласен» и 22 человека или 44,0% «Согласен». 13 человек или 26,0% не согласились с данным утверждением, в том числе, 11 человек или 22,0% ответили «Скорее не согласен» и 2 человека или 4,0% «Не согласен».

Составной частью анкеты стала оценка мнения экспертов о развитии и защите прав интеллектуальной собственности со стороны экономических агентов региона. Экспертам было предложено ответить, согласны они или нет со следующим утверждением «Экономические агенты региона не достаточно проводят защиту своей интеллектуальной собственности (брендов, торговых марок, наименований)». Полученные результаты можно увидеть на Рис. 11.

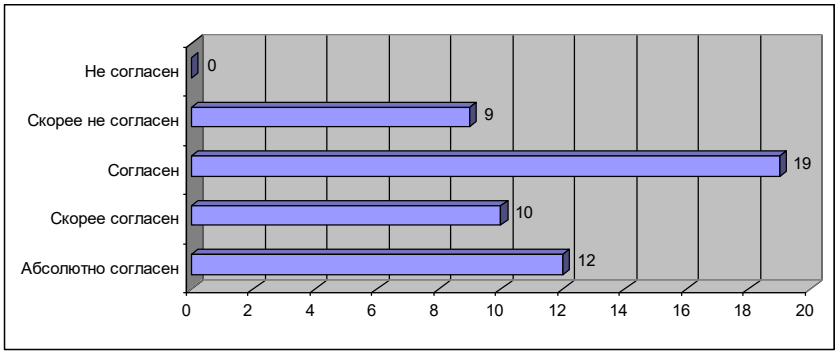

Рис. 11. Оценки экспертов о действиях экономических агентов региона по защите интеллектуальной собственности.
Источник: составлено автором по результатам обработки анкет.

Абсолютное большинство экспертов согласились с данным утверждением, а именно 41 человек или 82,0%, и только 9 человек или 18,0% не согласились, ответив «Скорее не согласен». Полученные ответы подтверждаются и на практике, так как абсолютное большинство экономических агентов региона вообще не проводят никакой работы в данной сфере и не обращаются в Государственное агентство по интеллектуальной собственности для регистрации и защиты объектов интеллектуальной собственности.

Результаты оценки ответов на утверждение «Экономические агенты региона имеют высокий уровень ассоциирования и коллективно защищают свои интересы» представлены на Рис. 12.

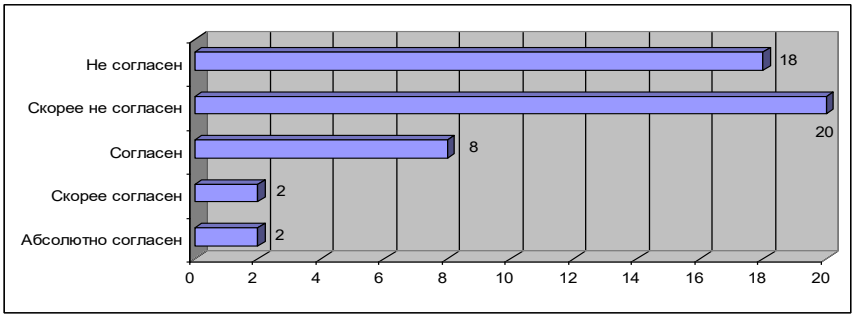

Рис. 12. Оценки экспертов об уровне ассоциирования экономических агентов региона. Источник: составлено автором по результатам обработки анкет.

20 человек или 40,0% дали ответ «Скорее не согласен», 18 человек или 36,0% «не согласен», 8 человек или 6,0% «Согласен» и по 2 человека или по 4,0% «Скорее согласен» и «Абсолютно согласен» соответственно. Следовательно, большинство экспертов отметили, что экономические агенты региона не очень активно проявляют интерес к объединению или ассоциированию для совместного продвижения интересов в разных секторах экономики региона. Эти оценки на практике подтверждаются низким уровнем членства предпринимателей и экономических агентов в профильных ассоциациях. Так например, в Ассоциации пчеловодов Гагаузии всего 53 члена, в Ассоциации овцеводов и козоводов Гагаузии 58 членов, в филиале ТПП РМ по АТО Гагаузия около 100 членов, Ассоциация бизнесменов Гагаузии NEXT около 20 членов, Ассоциация сельскохозяйственных производителей Гагаузии AGRO OGUZ около 50 членов, Ассоциация виноделов Гагаузии 14 членов, Ассоциация производителей столового винограда Гагаузии около 10 членов. Также следует отметить, что в отдельных секторах вообще отсутствуют профильные Ассоциации, например, общественное питание, швейное производство и т.д.

Экспертам было предложено проранжировать от 1 до 10 значимость финансирования отдельных сфер деятельности для развития экономики АТО Гагаузия на ближайшие 5 лет (при условии, что значение 1 – наиболее значимое и 10 – наименее значимое). В анкету было включено 9 секторов, а также предложено указать свой вариант ответа. Результаты обработки ответов были сведены в таблицу 3.

Таблица 3. Значимость финансирования отдельных сфер деятельности для экономики АТО Гагаузия на ближайшие 5 лет

№ п/п	Сфера деятельности	Среднее значение	Рейтинг
1	Промышленность	2,72	1
2	Сельское хозяйство	3,34	2
3	Туризм	4,06	4
4	Торговля	6,56	9
5	Сфера услуг	5,5	7
6	Транспорт	6,35	8
7	Образование	3,74	3
8	Здравоохранение	4,26	5
9	ИНТЕРНЕТ и информационные технологии	4,66	6

Источник: составлено автором по результатам обработки анкет.

Данные приведенные в Таблице 3 демонстрируют, что 5 наиболее значимых для финансирования отдельных сфер деятельности экономики АТО Гагаузия на ближайшие 5 лет, согласно рейтинговым оценкам, являются:

1. Промышленность.
2. Сельское хозяйство.
3. Образование.
4. Туризм.
5. Здравоохранение.

Одновременно экспертам было предложено ответить на следующий вопрос «Выберите, какие на Ваш взгляд приоритетные направления бизнеса должны получить поддержку и развитие в экономике региона (максимум 3 отрасли)». Данный вопрос являлся заключительным в анкете. Ответы экспертов были обобщены и приведены в табличную форму (см. Таблица 4).

Таблица 4. Приоритетные направления бизнеса для поддержки в экономике АТО Гагаузия

№ п/п	Направления бизнеса	Количество ответов, чел	Удельный вес, %	Рейтинг, место
1	IT сектор	18	12,0	**3**
2	Пчеловодство	7	4,67	**6**
3	Переработка фруктов и овощей	27	18,0	**1**
4	Тепличное хозяйство и производство овощей	23	15,33	**2**
5	Овцеводство и козоводство	8	5,33	**5**
6	Птицеводство	1	0,67	**11**
7	Выращивание крупного рогатого скота	6	4,0	**7**
8	Развитие пансионов и гостевых домов для приема туристов	15	10,0	**4**
9	Посадка фруктовых садов	2	1,33	**10**
10	Развитие кустарниковых плантаций (малина, ежевика, голубика и т.д.)	1	0,67	**11**
11	Посадка плантаций столового винограда	5	3,33	**8**
12	Посадка плантаций технического винограда	7	4,67	**6**
13	Выращивание трав для производства специй	3	2,0	**9**
14	Рыбоводство	5	3,33	**8**
15	Развитие народных промыслов и ремесел	6	4,0	**7**
16	Развитие санитарно-курортного туризма	8	5,33	**5**
17	Производство строительных материалов	1	0,67	**11**
18	Швейное производство	6	4,0	**7**
19	Другое: Высев трав на пастбищах для выпаса скота	1	0,67	**11**
	Итого:	**150**	**100,0**	-

Источник: составлено автором по результатам обработки анкет.

Рекомендации по результатам исследования.

Обобщая результаты проведенного исследования, создается основа для выработки следующих рекомендаций, направленных на реализацию перспектив в развитии экономики АТО Гагаузия:

1. При выработке стратегических направлений социально-экономического развития региона целесообразно на постоянной основе привлекать экспертов, представляющих различные сферы деятельности, сектора и учреждения, работающие в регионе, что позволит привнести новое качество в разрабатываемые и принимаемые документы, как со стороны законодательного органа региона, так и структурами исполнительной власти.

2. В целях эффективного и рационального использования инструментов финансовой поддержки в форме грантов для малого и среднего бизнеса в регионе, важно вырабатывать приоритетные направления для каждого бюджетного года при обязательном утверждении критериев доступа к данным ресурсам и индикаторов для мониторинга и оценки результатов реализованных бизнес-проектов.

3. В процессе выработки стратегических документов социально-экономического развития региона целесообразно применять современные подходы анализа и планирования, особо делая акцент на применении такого, как «дерево проблем» - «дерево целей». Это позволяет не только всесторонне выявить имеющиеся проблемы в экономике региона, включая в каждой отрасли экономики отдельно, но подойти комплексно при определении приоритетов и перспектив в развитии.

4. Результаты данного исследования подтверждают то, что важно на системной основе получать оценки экспертов, которые представляют альтернативную точку зрения по разным аспектам развития экономики региона, даже в том случае, если она разнится от официальной линии руководства региона.

5. При использовании результатов подобных исследований, важно помнить, что это комплексное видение о проблемах и перспективах развития экономики региона, объединяющее субъективные мнения и оценки отдельных экспертов, представляющих различные сферы и учреждения, работающие в регионе. Комплексность и качественный уровень экспертов нивелируют субъективность полученных оценок и суждений экспертов, что позволяет обеспечить достаточно высокий уровень доверия к полученным аналитическим результатам.

6. Продолжение в дальнейшем проведения подобных исследований позволит наращивать потенциал и профессионализм организаций и учреждений, ответственных за выработку региональных политик и мер по поддержке малого и среднего бизнеса в регионе.

7. Применение метода экспертных оценок позволит эффективнее согласовывать меры по поддержке малого и среднего бизнеса с региональными политиками, такими как инвестиционная, образовательная и инновационная политики.

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DEVELOPMENT OF ELECTRONIC TRADE IN AZERBAIJAN AND SOLUTIONS TO THE PROBLEMS IN THIS FIELD

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ABSTRACT

The article provides information on the establishment and development of e-commerce in Azerbaijan, emphasizing that the scale of this field will expand in our country in a short time. Information was provided on the number of payment cards in Azerbaijan in 2016-2020, the volume of non-cash payments, transactions with debit and credit cards, transactions per ATM and one POS-terminal. The article also notes the volume of transactions carried out by foreigners visiting Azerbaijan through bank cards in January-October 2021 and e-commerce in Azerbaijan in January-October 2019-2021.

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Introduction. The law on e-commerce in the Republic of Azerbaijan was adopted in 2005. However, despite the adoption of this law, e-commerce became possible after 2008.

E-commerce develops on three main criteria. These are electronic platforms, electronic payment systems and logistics [3]. Currently, e-commerce in Azerbaijan is at a new stage of development. However, it is still possible to determine that the volume of e-commerce is much lower than in other countries. What is e-commerce?

E-commerce is the activity of purchasing and selling goods, providing services and performing work using information systems. Buyers, sellers and intermediaries are considered participants in e-commerce. The buyer is the person who buys the goods and the seller is the person who sells the goods. An intermediary is a natural or legal person who provides e-commerce services between the sender and the recipient of an electronic document [1]. The buyer buys the product from the seller and pays for the product with payment cards. The number of payment cards in Azerbaijan has increased significantly over the past five years. Information on the number of payment cards is shown in Figure 1.

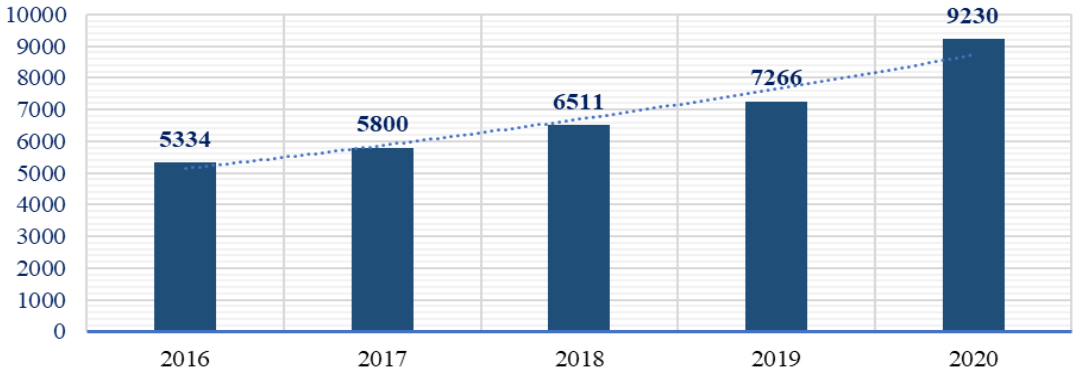


Fig. 1. Number of payment cards in Azerbaijan in 2016-2020, thousand units [2]

It is clear from Figure 1 that the number of payment cards has been increasing over the past five years. According to October 2021, the number of payment cards in Azerbaijan is 10 million. There were 673 thousand units. The increase in the number of payment cards has led to an increase in non-cash payments, the volume of domestic non-cash transactions increased by 73% compared to January-October 2020. The volume of non-cash payments for the first ten months of 2021 amounted to 8370 mln. manat. During this period, 5218 mln. manat falls to the share of e-commerce. In October 2021, the volume of cashless domestic transactions with payment cards accounted for 34% of total transactions. Information on non-cash payments in Azerbaijan is shown in Figure 2, and in 2020 this figure will reach 6,111 million. manats [5].

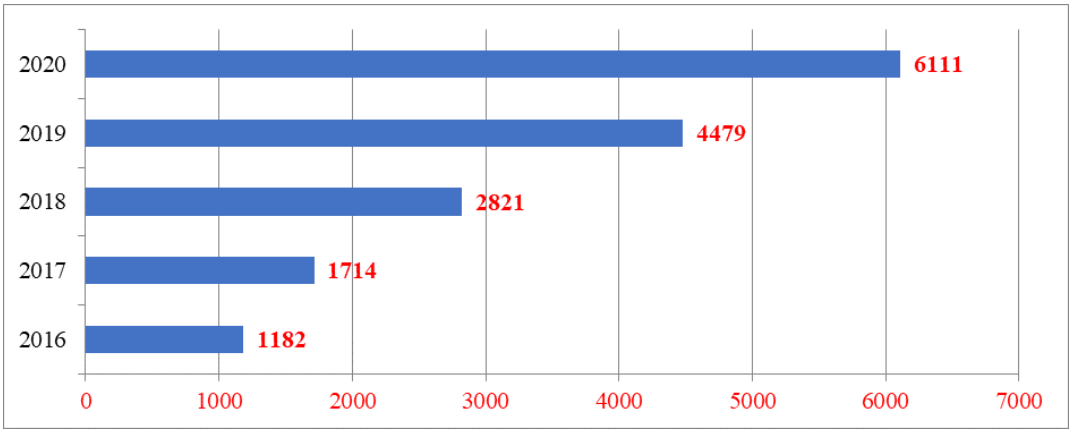


Fig. 2. Volume of non-cash payments in Azerbaijan in 2016-2020, mln. manat [2]

The coronavirus pandemic has had a negative impact on the world economy. Various areas have faced the consequences of the pandemic. One of these areas is tourism. In January-October 2021, foreigners coming to Azerbaijan through bank cards received 960.9 million. manat operation. For comparison, it should be noted that for 10 months of 2019, this figure was 1,073.7 million. manat, and for the corresponding period of 2020 this figure is 379.1 mln. manat. These data are presented in Table 1 [7].

Table 1. Transactions carried out by foreign citizens arriving in Azerbaijan in January-October 2021 by bank cards (in million manats)

Months / **Years**	**2019**	**2020**	**2021**
January	88,3	85,2	72,2
February	85,3	72,9	112,2
March	98	53,9	93,2
April	103,2	19,7	64
may	100,9	24,3	81,3
June	115,1	23,7	90
July	134,6	23	95,1
August	137,4	25,6	104,2
September	106,2	25,9	124,3
October	104,7	24,9	124,4

At present, according to the volume of e-commerce in the world, the United States, China, Germany, Japan and others. countries such as Today, the number of e-shops in the world continues to grow. Although interest in this field is growing in our country, the number of e-shops is not enough. When e-commerce, the customer accesses the store's information server through a browser. The server has an electronic showcase. Catalogs depicting products in the shop window, search tools on request, ordering, payment for the product, etc. sections are available [8, p.91].

An online store must have the following features to join the ranks of successful sites that sell directly:

- have an optimal amount of information;
- have a catalog of the offered product;

• have information about the firm's requirements, ie raw materials, consumables or services required by the enterprise;

• use of various options for concluding deals and mechanisms for their implementation;

• have records of settlement schemes and systems used by the firm in order to establish a quick and efficient system of mutual settlements [6].

E-commerce is a form of relationship between enterprises, organizations and individuals, where economic relations for the delivery of products are formed freely between the parties through electronic networks. Factors influencing the development of e-commerce technology can be noted:

• general economic factors;

• management factors;

• infrastructure factors;

• legal factors [4, p.8].

The volume of payment card transactions is growing in Azerbaijan. The number and volume of debit and credit card transactions in Azerbaijan in 2016-2020 are shown in Figure 3.

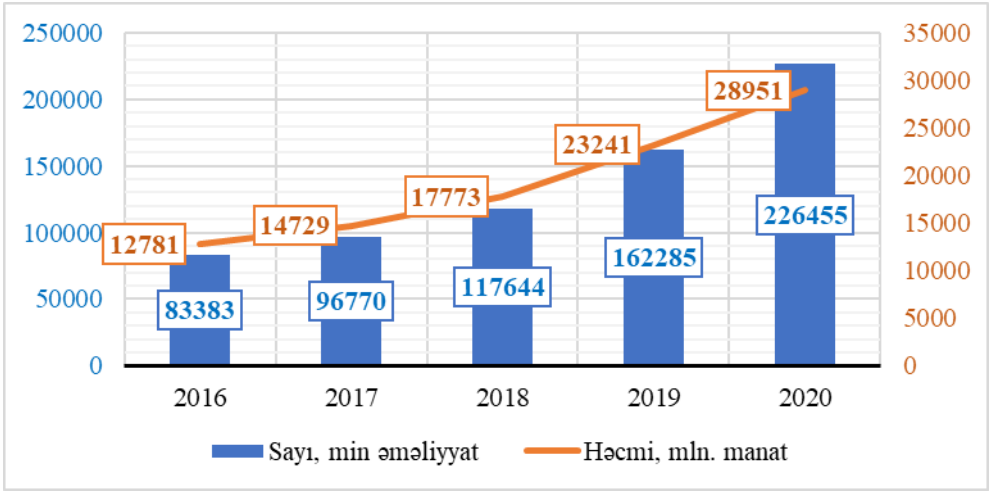


Fig. 3. With debit and credit cards in Azerbaijan in 2016-2020 operations [2]

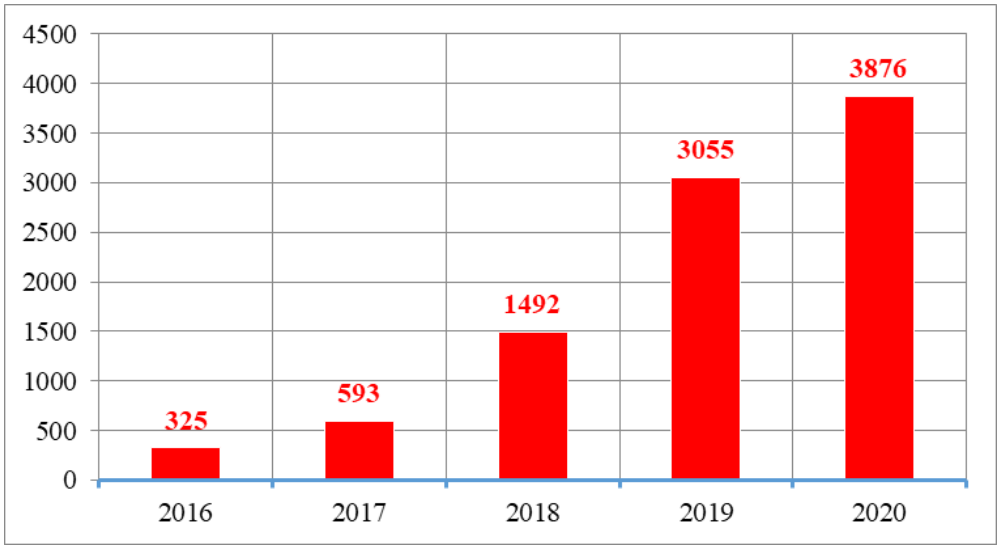


Fig. 4. Through e-commerce in Azerbaijan in 2016-2020 volume of operations carried out, mln. manat [5]

Figure 4 shows the volume of e-commerce transactions in Azerbaijan in 2016-2020. It is clear from Figure 4 that an increase in the volume of transactions was observed during these 5 years. This figure was 325 million in 2016, 593 million in 2017, 1,492 million in 2018, 3,055 million in 2019 and 3,876 million in 2020. manat.

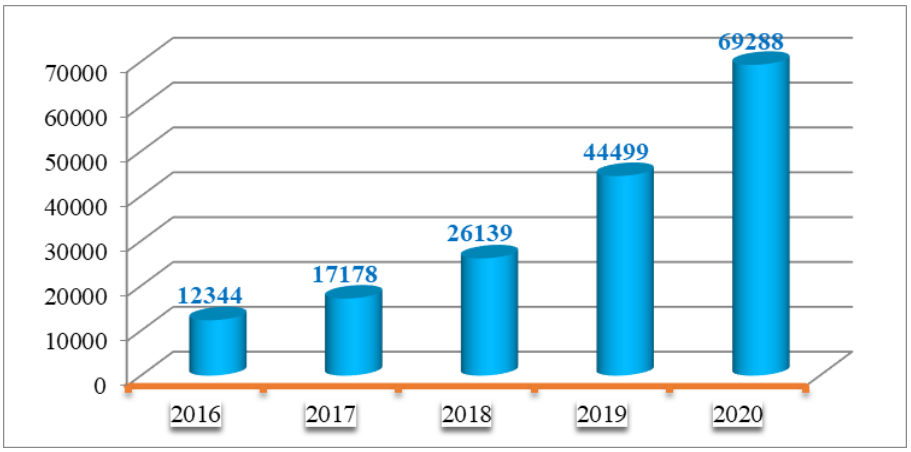
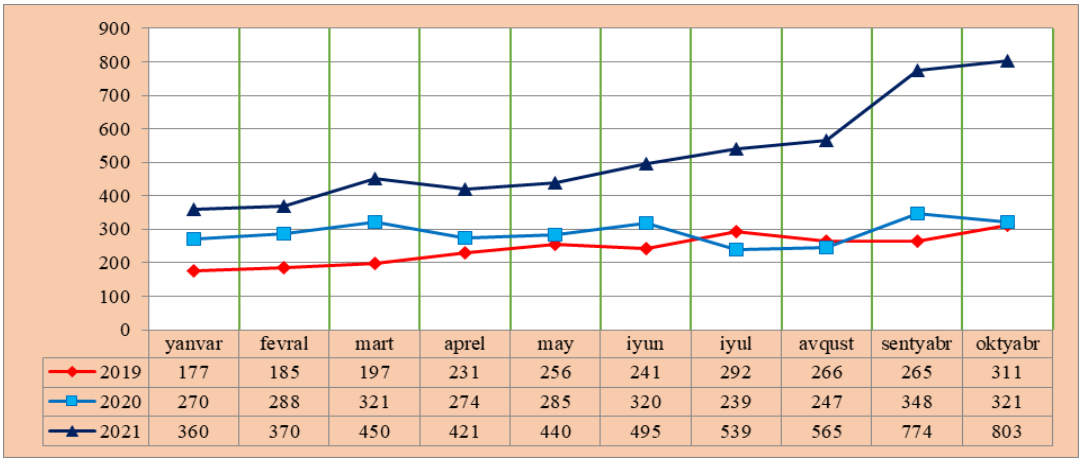


Fig. 5. Through e-commerce in Azerbaijan in 2016-2020 number of operations performed, thousand operations [5]

Figure 5 shows the number of e-commerce transactions in Azerbaijan in 2016-2020.



	yanvar	fevral	mart	aprel	may	iyun	iyul	avqust	sentyabr	oktyabr
2019	177	185	197	231	256	241	292	266	265	311
2020	270	288	321	274	285	320	239	247	348	321
2021	360	370	450	421	440	495	539	565	774	803

Fig. 6. Volume of e-commerce transactions in Azerbaijan in January-October 2019-2021, mln. manat [5]

The volume of e-commerce transactions in Azerbaijan for ten months of this year amounted to 5218 million. manat. This is significantly higher than the same period last year.

E-commerce allows shippers and customers to enjoy new opportunities equally:

- Global participation and global choice;
- Increasing competitiveness;
- Individualization of sales;
- Reduction of turnover costs;
- New business opportunities [4].

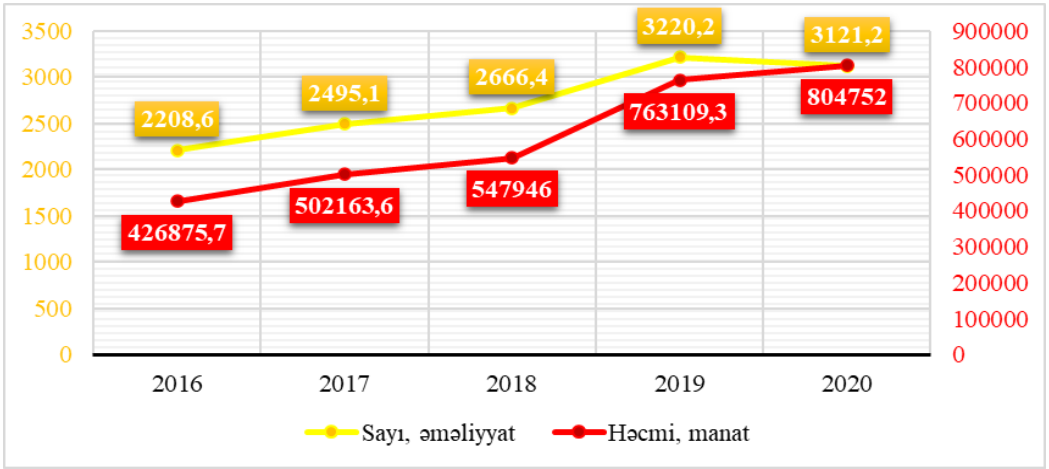


Fig. 7. Transactions per ATM in Azerbaijan in 2016-2020 [2]

As of October 2021, there are 2,870 ATMs in Azerbaijan. 1521 of them are in the capital Baku, and 1349 in other cities and regions. Information on the average monthly number and volume of transactions per ATM in Azerbaijan in 2016-2020 is shown in Figure 7.

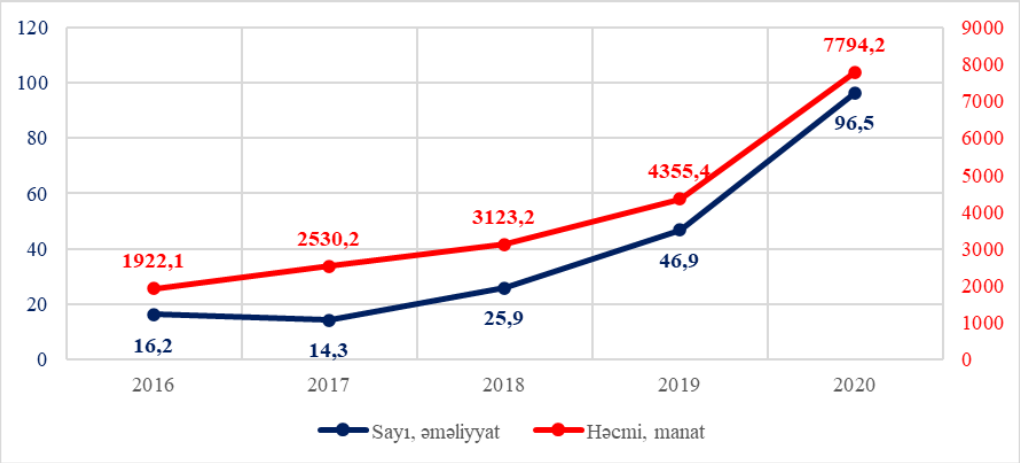


Fig. 8. Per POS-terminal in Azerbaijan in 2016-2020 operations [2]

As of October 2021, there are 61,061 POS-terminals in Azerbaijan. 40057 of them are in Baku and 21004 in other cities and regions. Information on the average monthly number and volume of transactions per POS-terminal in Azerbaijan in 2016-2020 is given in Figure 8.

E-commerce security is the protection of the interests of interconnected entities engaged in commercial operations with the help of e-commerce technologies [4]. One of the main problems on the Internet is data security.

Taxation of e-commerce in our country has been implemented since 2017. According to the amendments to the Tax Code, which came into force in 2017, the two main issues in the taxation of the digital economy are the mechanism of withholding tax (10%) and VAT (18%). Additions and amendments to Articles 168.1.5, 169.1 and 169.3 of the Tax Code regulate the application of VAT in the virtual space.

E-business is at a new stage of development in our country. However, the share of the e-market is much smaller than the traditional market. A number of problems must be solved for the development of e-commerce [4, p.19]:

- Financial problems;
- Security of e-commerce operations;
- Transition problems of globalization;
- Attracting new customers, etc.

By solving these problems, it is possible to achieve the development of e-commerce in our country. Entrepreneurs operating in this field must have discounts. First of all, entrepreneurs should be exempt from taxes for several years. For this, it is necessary to use world experience.

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EMPLOYEE MOTIVATION BY PREVENTION COUNTERPRODUCTIVE BEHAVIOR

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ABSTRACT

In recent years, there has been an increase in interest in researching workplace behaviors that cause harm to employees or the organization, especially, because of the harmful consequences and associated costs. Consequences include economic ones, for example, loss of productivity due to late work, theft or sabotage, and psychological ones such as withdrawal or low job satisfaction - for those who are targets of interpersonal counterproductive behaviors; the high degree of stress and insecurity – for those who perceive such behaviors. Consequences are important arguments for the need to identify predictors of counterproductive behaviors, both interpersonal and organizational. Such information will help organizational actors to find ways to prevent these acts during the selection process, focusing on those predictors of personality that determine counterproductive behavior or at the level of the organization, taking into account situational factors that may trigger or encourage such behaviors.

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Introduction. In modern organizations that, in the process of obtaining performance emphasize the human factor, personality, individual characteristics of the employee of each rank, a special interest, as a motivation, has the research of behaviors that cause harm to employees or even the entire organization. The damages are manifested by *consequences* of different nature of the mentioned behaviors:

- *economy*: loss of productivity due to late work, theft or sabotage;
- *psychological*: retirement, job dissatisfaction, high stress, insecurity.

The above-listed consequences serve as a basis for selecting the arguments for detecting behaviors that cause harm, called *counterproductive behaviors*, leading to the identification of adequate antecedents for predicting/correcting these manifestations.

Counterproductive behaviors are defined as abusive manifestations towards others, which consist of: physical and verbal aggression, intentional misconduct, sabotage, absences, delays, etc. [5] and in the variety of definitions. Emphasis must be placed on the fact that these behaviors are intentional and harm employees and organizations.

Research in the field of counterproductive behavior in the workplace has been done for about 20 years by scientists in the field R. Lanyon, L. Goodstein, S. Robinson, R. Bennett, P.E. Spector, S. Fox, D. Milles, M. Popa, C. Sulea who identified and examined:

• *the levels of counterproductive behavior* (interpersonal and organizational);
• *the forms and target of counterproductive behavior*;
• *areas of counterproductive behavior*, which referes to:
- intent to do harm, intent that may be present, absent, or ambiguous;
- the target of the act, a target that can be represented by individuals, by the organization or by both;
- types of violated norms, norms of the company, of the organization, of the working groups;
- the persistence of the act, which can be singular or repeated over time;
- the intensity and depth of the manifested behaviors;
• *the degree of severity of counterproductive behavior:*
- *serious*, demonstrated by aggression, harassment, violence;

- *minors*, demonstrated by spreading rumors, disrespect for others, etc.;

• *sources of evaluating counterproductive behaviors*, which are*:*

- objective registration systems;
- self-reporting;
- appreciation of other people.

Analysis. The studies carried out are bidirectional: on the one hand, the determination of the shapes, dimensions, domains, the degree of behavioral deviations; on the other hand, the development of techniques and tools for detecting and analyzing the predictive factors of counterproductive behaviors.

One of the techniques for typifying counterproductive behaviors is that *of multidimensional scaling*, with two *explanatory labels*: *organizational/interpersonal*; *minor/major* (fig. 1).

<table>
<tr><td colspan="4">Organizational</td></tr>
<tr><td rowspan="2">Minor</td><td>Minor and organizational deviance
DEVIATION RELATED TO PRODUCTION
Leave earlier
Take excessive breaks
Intentionally working slower
To waste resources</td><td>Major and harmful deviance to the organization
PROPERTY DEVIATION
Sabotage the equipment
To accept bribes
Lying about the hours worked
Stealing from the company</td><td rowspan="2">Major</td></tr>
<tr><td>Minor and interpersonal deviance
POLITICAL DEVIATION
Doing favors
Gossiping colleagues
To accuse / blame colleagues
Being in the wrong competition</td><td>Major and interpersonal deviance
PERSONAL AGGRESSIVENESS
Committing verbal abuse
Stealing from colleagues
Endangering colleagues</td></tr>
<tr><td colspan="4">Interpersonal</td></tr>
</table>

Fig. 1. The typology of deviant behavior [4]

According to the table, we make the following observations:

• the *minor/major* label reflects the following: if at one pole we recorded minor deviations of behavior that are not harmful to the organization and individuals, then, at the opposite pole, behavioral deviations are characterized by severity with severe implications for both the organization and individuals.

• the *organization/interpersonal* label tells us that if at one pole we find behaviors that are harmful to individuals but harmless to the organization, then at the other pole the behaviors are harmful to the organization, but not to individuals.

• A tool for determining the typology of counterproductive behaviors is developed by Spector and collaborators, *Counterproductive Work Behavior Checklist* (CWB-C) [6]. It contains 45 items (including the dimensions of counterproductive behavior) and with five categories of deviations:

• *abuse against others*, which consists of harmful behaviors directed against colleagues, to harm physically or mentally through threats, inappropriate comments, ignoring the person or undermining his authority to work effectively; devianţa legată de producţie este neefectuarea intenţionată a sarcinilor de serviciu;

• *sabotage* refers to the destruction or damage of physical property belonging to the employer;

• *theft* that refers to the theft of objects or information from an organization;

• *retirement*, is related to the adoption of a behavior that reduces working time (employees work less time than required, are absent, late, take longer breaks than expected).

The next tool, *Counterproductive Behavior Index (CBI)* [2], is presented by the authors in the form of an *integrity test*. This procedure is used to select and identify candidates whose work-related behaviors, attitudes and values are likely to interfere with their success as employees. CBI is a 140-item questionnaire with true/false answers based on 7 categories, such as *trust, aggression, substance abuse, computer abuse, sexual harassment, and other general issues*.

The application of techniques and tools in practice has led to the finding and finding of solutions to prevent and correct counterproductive behaviors. First of all, it is about detecting the *positive and negative dimensions of behavioral deviations*.

The deviance considered negative has the direct connotation of the counterproductive behavior. This is the main research interest in the field and, importantly, affects both targets of this type of behavior - *individual and organization*.

Thus, treating employees in a way that disadvantages them is an approach that has a negative impact on them. And sabotage, a form of employee behavior, is a deviation from productivity and ownership and harms the organization [8]. As, providing incorrect information, lying, dishonesty is a potential harm to individuals.

The *positive* connotation *of behavioral deviance* is to the advantage of the interests of individuals and the organization. The authors who studied this phenomenon introduced the phrase "*constructive deviance",* which is found when counterproductive behaviors have positive consequences on employees and organizations [7]. Such a treatment of divination reveals radical behaviors of employees that, in violation of certain rules, cause changes, contributing to the well-being of the organization, the people involved being called "*reformers with an innovative and entrepreneurial spirit*".

Therefore, it is found that approaches to the vector of deviance help to identify the factors that cause counterproductive behaviors and suggest possible responses to managers. This practice has been defined as *"the disclosure by members of the organization of illegal, immoral or illegitimate practices (which are under the control of employees) to persons or organizations that have the capacity to act in this regard" and is called "sounding the alarm"* [1].

The definition of the term "sounding the alarm" reveals the participation of two characters: *the one who manifests* the counterproductive behavior and *the one who reveals it* (the observer person). The practice takes place in two stages: *observing the direction of the deviation and processing the information and making the decision* [1].

1. During the stage of *observing the direction of deviation*, the cooperation of the members of the group is helpful for the managers, because it is easier for the colleagues to observe the behavior of those next to them. In addition, it is easier to make a remark to a colleague to encourage/inhibit the behavior.
2. The stage of *information processing and decision-making* takes place at the *intrapersonal and interpersonal* levels.

In the intrapersonal stage, *the degree of responsibility* of the individual who records the observation is of great importance. This determines *how the deviance is perceived* (whether the "guilty" is guilty or not), *the causes* that the individual attributes to the perceived behavior (whether it is moral or immoral) and *the actions* he will take in connection with it (whether or not he discloses the information).

At the interpersonal level, the observer faces social influences from the "guilty" (presenting attenuated circumstances, using excuses or justifications, emphasizing the isolated character and even intimidation) issues that make it difficult to report.

It is important to emphasize that, the process of observation, the individual is in danger nimereste of being tempted to imitate the perceived behavior and / or to suffer side effects, such as blame, from colleagues and even superiors. With these latest developments, the number of pieces of evidence in favor of adequate motivation of employees is increasing, so that they gain the necessary courage to denounce and not to imitate counterproductive behaviors.

Conclusions. Therefore, in the effective management of counterproductiveness by dealing with deviant behaviors, it is important to support initiatives to observe and encourage alarm signals. Early detection of harmful behavior facilitates and streamlines the intervention. On the other hand, the occasional absenteeism, the abuse of sick leave, the use of working time in personal interests can be, in some cases, manifestations consciously accepted by the organization, as part of the "daily comfort" of employees. Sometimes things go on for a long time. For example, an organization in financial difficulty, which has problems with the payment of salaries, can accept theft as a way of "payment" and as a solution to maintaining employee loyalty in times of crisis.

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COMPARATIVE ANALYSIS OF ECONOMIC INDICATORS OF THE TEA SECTOR OF AZERBAIJAN AND GEORGIA

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tea production, tea consumption, green tea leaves, value.

ABSTRACT

The purpose of the study is to assess production and consumption based on the analysis of economic indicators of the tea sector in Azerbaijan and Georgia. Research methodology: Comparative and economic statistical analysis methods were used in the research. Significance of the study: It is believed that other tea-producing countries will benefit from the experience of Azerbaijan and Georgia in tea production. The results of the study: It was determined that according to the average price of green tea leaves, Azerbaijani producers receive an income $ 0.07 per kg from Sri Lanka, $ 0.34 from Georgia, $ 0.54 from India and $ 0.55 from Vietnam. Originality and scientific novelty of the research: Despite the high level of production in these countries during the former Soviet era, the value of green tea leaves has increased relatively in the current period.

Citation: Parvin Mammadova. (2021) Comparative Analysis of Economic Indicators of the Tea Sector of Azerbaijan and Georgia. *International Journal of Innovative Technologies in Economy*. 4(36). doi: 10.31435/rsglobal_ijite/30122021/7717

Introduction. Starting from the 19th century, tea production in Azerbaijan and Georgia began and formed its own traditions. In the 1980s, tea production in these two countries peaked and provided a large amount of tea consumed in the former USSR. As a result, the former Soviet Union is the world's fourth largest tea producer after India, China and Sri Lanka. The structural changes that took place after these countries gained independence in the early 1990s led to a sharp decline in the tea sector.

In order to ensure the growing interest in tea production in Azerbaijan and Georgia in recent years, states have adopted state programs to support the development of a new mechanism of tea production and increase production in order to revive the once prosperous tea sector. Thus, the "State Program on the Development of Tea Growing in the Republic of Azerbaijan for 2018-2027" was approved by the Order No. 3660 of the President of the Republic of Azerbaijan dated February 12, 2018. It is planned to increase production to 8,500 tons, which is 8 times more than in 2018. [1] The implementation of the new Georgian River Project aims to subsidize the rehabilitation of up to 7,000 ha of abandoned tea plantations in previous years under the 2016 Tea Plantation Rehabilitation Program.

Despite the long process of tea production and processing, the sustainable development of the tea sectors in Azerbaijan and Georgia is one of the important conditions for modern times, both in the application of new technologies that reflect the high achievements of ETT and in the management of this technology. It is important to take into account changes in consumer preferences in regional and international markets, as well as potential environmental risks when growing quality products in tea production.

Analysis of the current state of tea production. The countries compared in the study have their own traditions and specifications of tea production. Part of the former Soviet Union, the two countries were major tea producers and peaked in the mid-1980s. Thus, they provided more than 95% of the share of tea produced in the USSR and 75% of the total tea supply. At that time, Georgia was the leader in the production of about 150,000 tons of tea from more than 65,000 hectares, while Azerbaijan produced about

35,000 tons from 13,000 hectares, with a yield of 0.43 ha / ton per hectare in Georgia and in Azerbaijan. 0.37 ha / ton. The analysis shows that in the comparable period, the productivity of tea in Georgia was 0.06 ha / ton more than in Azerbaijan. The relatively low rate in Azerbaijan may be due to the fact that the river does not produce high productivity in very hot climates.

The collapse of the USSR, a major tea producer, led to the loss of traditional markets for consumers of this product and the weakening of tea production in both countries (Figure 1).

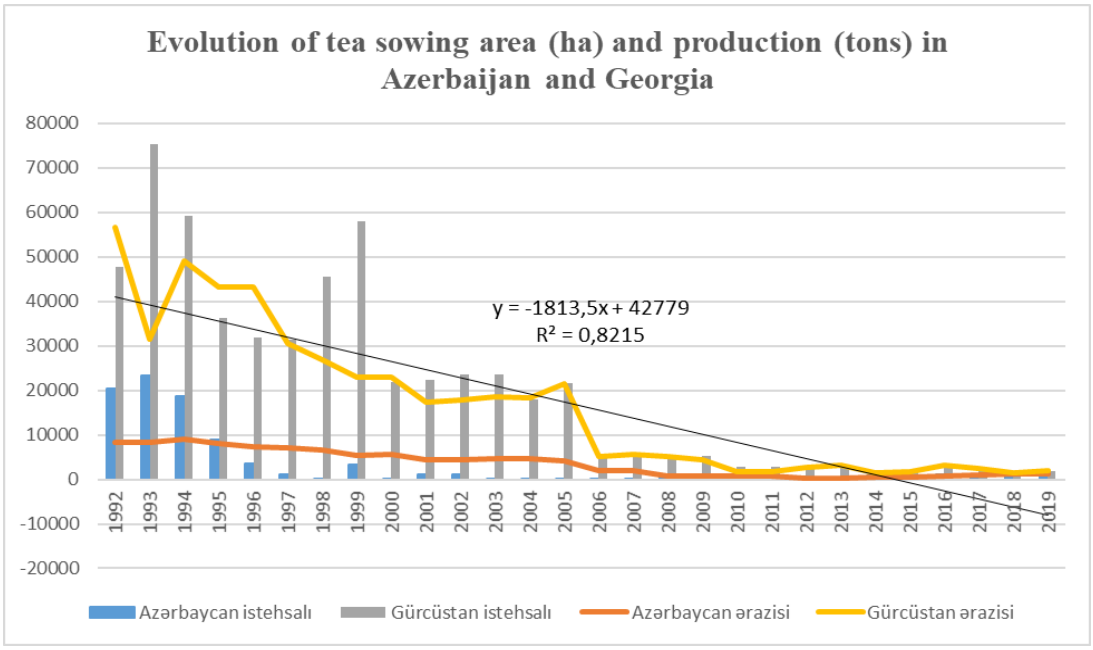

Fig. 1. Evolution of tea sowing area (ha) and production (tons) in Azerbaijan and Georgia

The negative sign of the approximation function in the diagram reflects the declining number of tea plantations in both countries. Approximation equation

$$y = -1813.5x + 42779$$

and the level of evaluation of that indicator

$$R2 = \text{equal to } 0.8215.$$

Analysis of the data in the diagram shows that tea production in Azerbaijan did not change approximately in 1992-1995. Compared to 1992-1995, the production of tea in 1996-1999 decreased by 6-7 times, and in subsequent years, very little was produced. In Georgia, in 1992-1995, tea production was 3.5 times higher than in Azerbaijan, and in 1996-1999, there was a tendency to increase production, and in that period there was a significantly higher level of production than in Azerbaijan.

According to statistics, in 2019, about 1,900 hectares of tea plantations in Georgia produced 2,000 tons of green tea leaves, and in Azerbaijan, 900 tons of green tea leaves from 1,100 hectares of tea plantations were produced and consumed in local and international markets. The foreign markets of these countries were dominated by the markets of the former Soviet Union. For comparison, the volume of green tea collected in Georgia after processing in tea factories was 2.22 times higher than in Azerbaijan. Also, the tea plantation in Georgia during this period was 1.73 times more than in Azerbaijan. Thus, the productivity of tea plantations in Georgia was 1.28 times higher than in Azerbaijan. The high value of this indicator can be explained by the fact that the natural climate of Georgia is more favorable for tea than in Azerbaijan.

Mechanism of state support for the development of tea growing in Azerbaijan and Georgia. Recognizing the importance of the tea sector, Azerbaijan and Georgia have adopted development programs for the development of tea growing in order to provide special state support to stimulate the development of this sector. However, the specific support mechanisms for achieving this goal differ between these countries.

Commendable work on the implementation of current state support measures approved in 2018 and effective from January 1, 2020 in order to achieve the goals set in the "State Program for the Development of Tea in the Republic of Azerbaijan for 2018-2027" approved by the Presidential

Decree has been done. Thus, for the first seven years after the implementation of the relevant measures, a subsidy of AZN 700 per hectare and then AZN 240 per hectare was provided. A subsidy of AZN 240 is applied to sown areas established before 2019, regardless of the year of use of the sown area. [3] These government subsidies are aimed at stimulating investment in new tea plantations and replacing special subsidies for the production of various existing agricultural products. It should be noted that the state support provided to cooperatives with an area of more than 50 hectares, in addition to the above, is entitled to an additional subsidy payment of 10%.

The calculation based on state subsidies for tea expansion shows that the amount of subsidies provided in the amount of AZN 4,900 / ha in previous years after the adoption of the State Program is slightly less than 50% of the total investment required for the development of this sector. This indicates that the risks for small entrepreneurs to participate in tea production are still high, given that tea is a relatively low-income area compared to other crops.

The "Tea Plantation Rehabilitation Program" adopted in Georgia in 2016 and its implementation mechanism are different from the program adopted in Azerbaijan. The goal of this program is to stimulate the recovery of abandoned tea plantations by financing weeds, deep pruning, fertilization and other activities. According to the state rehabilitation program, up to 7,000 hectares of abandoned tea plantations will be rehabilitated in the coming years. The program is managed by the Agricultural Projects Management Agency (APMA) of the Ministry of Environmental Protection and Agriculture [4].

The maximum subsidy amount is limited to the estimated rehabilitation costs of 2,500 GEL (Georgian lari) per hectare. Depending on the ownership and legal status of the land, actual payments are made at 60% of the maximum amount paid to individuals who own the land, and up to 90% for cooperatives that produce on leased or state-owned land. Until 2020, this type of state-defined grants will be provided only to farms from 300 to 300 hectares. Our calculations show that the state's investment expenditures for this purpose can reach 8,000 GEL per hectare, ie the amount of subsidies provided by such a scenario covers 25-30% of the total joint expenditures of the state in this direction. Also, the investment costs required to obtain a tea product certificate produced in Georgia are often excluded from the program. The comparison shows that while in Georgia it is 2,500 GEL (AZN 1,350) for plantation rehabilitation, in Azerbaijan it is AZN 700, which is 1.93 times less than Georgia's subsidy. From this point of view, the high productivity of tea in Georgia compared to Azerbaijan can be justified both by the favorable climatic conditions for this plant and the high share of state support in the need for additional investment (costs for closing the edges of plantations). Thus, this program for the development of tea in Georgia is similar to the state support in Azerbaijan, as it reflects the difficulties faced by small farms.

Tea production and consumption practices in comparable countries.

The coastal regions of both countries have the most favorable agro-climatic conditions for tea production, where tea plantations are located. Especially in the summer months, most river plantations in Azerbaijan (except in rare cases) are irrigated (unlike in Georgia) due to the low rainfall on the Caspian Sea coast compared to the Black Sea. Another difference between the two countries is that most of the tea plantations in Georgia are located near livestock pastures. Therefore, fencing is required to protect crops from animals, although there is no need for this in Azerbaijan. It should be noted that for this purpose, the restoration of abandoned tea plantations in Georgia requires more investment than in Azerbaijan.

Along with the differences in tea production in these countries, there are similarities. Examples include plant stocks, seedling planting, harvesting, as well as post-harvest operations and production practices.

In both countries, tea bushes are grown in accordance with the harvesting methods established during the former Soviet Union. Samples for planting seedlings are planted at a distance of about 1.5-2.0 meters from each other and in a row. During the agro-technical service of the plant, producers in both countries claim that they produce tea without chemicals without the use of fertilizers and pesticides.

As a result of many years of experience in these countries, the practice of collecting green tea leaves with leaf pickers has, in fact, led to a deep perception of the deterioration of tea quality. Indeed, one of the most important conditions for the production of high-quality teas is the manual collection of only the highest quality tea leaves. Thus, during mechanical harvesting, fresh and soft leaves developed at the ends of the bikini are damaged and have a negative impact on its quality. Therefore, harvesting operations in these countries undermine the quality of the final product. It should be noted that most of the tea processing plants in Azerbaijan and Georgia cover low-quality tea processing, which is a large part of total production. Thus, it was determined that about two-thirds of tea

production in Georgia is low-grade tea (five-six leaves and one bud), and the rest is high and medium-grade tea (two-three leaves and buds). In fact, most of all large farms and factories collect tea bushes for the production of "brick" tea. In 2019, it was determined that about a third of the tea produced in Georgia is intended for the production of "brick" tea. For this purpose, tea bushes are pruned in late October as the last crop of the year. As a result, the total mass of collected tea leaves consists not only of leaves, but also of branches of tea bushes. Low quality tea produced in these countries is sold especially to the CIS export markets (for example, Mongolia, Kazakhstan, Russia, Ukraine, etc.).

There is an endemic problem with the concept of drying, storing and processing tea leaves based on good agronomic knowledge after harvest. The green leaves remain in storage for 24 hours, sometimes up to 36 hours, before entering the factory for processing. If this is not controlled, premature oxidation of tea leaves in the environment in which they are located, resulting in a significant deterioration in the quality of the final product.

Despite the fact that there are different options for the production of tea in agriculture, these countries regularly produce black tea. Thus, the significant processing power inherited from the former Soviet Union is largely obsolete, inefficient and underutilized. This has a negative impact on the cost of production and product quality.

Consumption patterns represent a key difference between Georgia and Azerbaijan, which may require two different approaches in terms of producers' greater dependence on the domestic market and import substitution in terms of improving market access and diversifying export markets for the development of their tea sectors.

Annual tea consumption per capita in Azerbaijan was 1.6 kg in 2008, and in 2018 this figure increased by 31.3% to 2.1 kg. This is a promising trend for the tea sector. Currently, Azerbaijan, along with the United Kingdom, Turkey and Morocco, is one of the leading countries in drinking tea, and the annual consumption per capita in these countries varies from 1.5 to 4 kg. It should be noted that although Georgia and Azerbaijan were the main tea suppliers in the former Soviet market, they have now become net tea importers. The difference between imports and exports is more pronounced in Azerbaijan. In 2019, about 14,000 tons of imported tea worth $ 55 million will be consumed in large quantities. Most of the tea imported to our country comes from Sri Lanka, and a total of 1,500 tons of tea worth $ 9.5 million was exported from other countries.

In 2019, Georgia imported 2,500 tons of products worth about $ 10 million and exported 2,000 tons worth $ 4.4 million, mainly from Sri Lanka and Iran, as well as Azerbaijan. Most of Georgia's exports are low-cost "brick" tea, which is also exported to Mongolia and Kazakhstan. Thus, the total unit value of tea is reduced due to the high share of "brick" tea in Georgia's tea exports compared to Azerbaijan. This is one of the main differences between the two countries.

For both producers, the main destinations for tea exports are the countries of the former Soviet Union. In particular, Azerbaijan's tea exports to these countries account for more than 95% of total tea exports. On the other hand, 96% of Azerbaijan's tea imports are from Sri Lanka (the most important import with 88%), Russia (re-export of packaged tea) and India. Almost 84% of tea exported from Azerbaijan is black tea packed in tea bags and packed in boxes of up to 3 kg. In contrast, about 89% of black tea imported to Azerbaijan is in bulk. These teas are mixed, packaged and labeled in Azerbaijan. It is then either sold domestically or re-exported. This creates uncertainty regarding the labeling and application of the rules of origin of Azerbaijani tea. It should be noted that in 2018, export prices were on average twice higher than import prices, i.e. exports were 6.86 US dollars / kg, imports were 3.84 US dollars / kg. This shows that the exported tea is mainly aimed at the high-end market. As a result, after the tea exported to Azerbaijan is packaged and the Azerbaijani brand is launched under the name "made in Azerbaijan", it is of some interest to consumers and, although not of high quality, is more acceptable than packaged tea from Sri Lanka or Kenya.

In contrast to the methods used in Azerbaijan, green tea in Georgia is mainly in the form of lower-cost "brick" tea, which accounts for about two-thirds of total exports and is exported to Central Asian countries (Mongolia, Kazakhstan and Turkmenistan). Black tea is exported to Turkey (bulk) and Azerbaijan (in packages of less than 3 kg). Tea packaged in Georgia is exported under the "made in Georgia" brand. On the other hand, tea imports in Georgia have averaged 2,500 tons per year since 2017, half of which is black tea. Tea is mainly imported from Turkey and the imported teas are of low quality. Tea is also imported from Sri Lanka and India. Unlike tea imported from Turkey, tea imported from these countries is of high quality.

In general, limited domestic consumption and foreign trade patterns show that attention to export markets can be a cornerstone in the context of the revival of the Georgian tea sector, provided that efficiency and product quality are achieved at the required level. Preserving the origin of the tea and tracking the local tea produced from field to cup can be a different way to empower the "made in Georgia" brand both in Georgia and abroad.

Profitability in tea production is specific to tea farms and depends on a number of factors (indicators). By reducing manual labor in tea production and improving its quality, it is clear that tea has significant potential to increase overall revenue from tea production through changes in production practices. In addition, the situation with the main river sources must be taken into account. At present, tea companies in Azerbaijan and Georgia receive higher funding for green leaves than farmers in India and Vietnam (Table 1).

Table 1. Average price of green tea leaves in some countries, USD / kg

Country of origin of the river	The average price of tea leaves
Georgia	0,30
Azerbaijan	0,64
Sri Lanka	0,57
India	0,10
Vietnam	0,09

According to the analysis of data, according to the average price of green tea leaves, Azerbaijani producers receive more than $ 0.07 per kg from Sri Lanka, $ 0.34 from Georgia, $ 0.54 from India and $ 0.55 from Vietnam. they take. This shows that one of the main reasons for the low productivity of tea in Azerbaijan is the manual collection of green tea.

Conclusions. The amount of subsidy determined by the state support for tea production enterprises in Azerbaijan is 700 AZN per hectare per year, and in Georgia the maximum subsidy is 2500 GEL (Georgian lari) per hectare. As a result of the calculations made on the basis of subsidies allocated by the state for the expansion of tea, it was determined that the amount of subsidies provided in the amount of 4900 AZN / ha in recent years after the adoption of the State Program is slightly less than 50% of total investment.

In Georgia, the state's investment expenditures for the expansion of tea production can reach 8,000 GEL per hectare, ie the amount of subsidies provided under this scenario covers 25-30% of the total joint expenditures of the state in this direction. The high productivity of tea in Georgia compared to Azerbaijan can be explained by both the favorable climatic conditions for this plant and the high share of state support in the need for additional investment (the cost of closing the edges of plantations).

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ANALYSIS OF THE LOGISTICS COMPONENT OF THE ECONOMIC SECURITY SYSTEM OF ENTERPRISES

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ABSTRACT

This article examines the analysis of the logistics component of the economic security system of enterprises.
The generalized classification of threats on the basis of structuring of spheres and types of logistic activity is carried out.
It is established that the logistics system is an adaptive, purposeful and structurally organized system with high organizational and integration and information and communication potential aimed at managing the logistics flows of the logistics entity to ensure the development of its economic security system.

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Introduction. The study of the analysis of the logistical component of the system of economic security of enterprises is relevant, because the crisis in the sectors and sectors of the economy of Ukraine manifested itself in the unstable functioning of a significant number of domestic enterprises.

This has led to significant changes in the consumption and purchase of goods. Suppliers in these conditions can not with high probability forecast demand based on trends from previous periods. This situation complicates the reliable determination of the parameters of the operating system of the subject of logistics activities and its resources. In turn, the instability of the parameters poses a threat to the economic security of both the operating system and the economic security system of the logistics entity as a whole.

Research purpose. The main purpose of the research there is an analysis of the logistics component of the system and the impact on it of economic security of enterprises.

Research materials and methods. In this article uses general scientific methods of analysis and synthesis of action induction and deduction, the transition from abstract to concrete, as well as special methods of analysis: grouping, comparison, systematic and others.

Results. There are many threats to economic security in the world today, especially the crisis of the operating system of seasonal products in a crisis. In this case, the variation between projected and actual demand can be significant. A certain duration of the production and commercial cycle does not allow in the traditional approach to the organization of production to respond quickly to changes in

demand [1]. In this case, management decisions may be inadequate to the market situation and lead to significant operating system costs associated with excess inventory in cases of low demand, or loss of image associated with a shortage of products in case of growing demand [8].

These negative trends affect the economic security of the operating system and the entity in general. The threat in this case is not only the nature of demand, but also a significant level of fixed costs associated with maintaining the functioning of the supporting infrastructure of the logistics entity [4]. In addition, the threat is the erosion of the qualification potential of the personnel of the logistics entity in terms of its part-time employment, etc. Therefore, it is necessary to introduce new mechanisms that will ensure the sustainable operation of the operating system and the subject of logistics in general in conditions of uncertainty [9].

Table 1. The main stages of diagnostics of a logistics facility in the context of economic security. [2].

№	Name of the stage	The main content of the stage
1.	Regulatory diagnosis of the location	Analysis of regulations on the possibility of locating a logistics facility on the possibility of locating a logistics facility in a topographically defined area. Assessment of legal barriers and restrictions and analysis of prospects for overcoming them. Assessment of legal protection and the possibility of obtaining permits for the location of the object.
2.	Assessment of institutional support for the project	Analysis of the degree of support for the project by the authorities and local governments and assessment of the degree of loyalty of the local community or the possibility of obtaining preferences.
3.	Analysis of historical aspects of the location and surrounding areas	Estimation of the height of the location. Geodetic analysis of soils and the state of their improvement, the presence in the soil of communications, structural elements and other improvements, their characteristics and condition. Study of projects that were planned to be built in these and adjacent areas, as well as archival documentation related to their construction.
4.	Diagnosis of prospects for the development of the territory and district	Acquaintance with plans of economic and social development of the territory and its infrastructure. Analysis of plans for capital construction or overhaul of bridges, overpasses, tunnels and other important facilities in the area.
5.	Analysis of neighborhood entities and features of their activities	Study of the institutional environment and objects of their activity. Assessment of the degree of influence of government buildings, defense agencies and other neighboring facilities on the functioning of the logistics facility.
6.	Diagnosis of harmful environmental factors and sources of their occurrence	Analysis of seismic factors, the possibility of exposure to meteorological hazards, the presence and level of radiation background. Assessment of the toxicological situation, the level of electromagnetic background radiation, fire hazard or the possibility of flooding. Analysis of the harmfulness and danger of neighboring industries, facilities and communications.
7.	Marketing analysis of localization	Analysis of the state of the logistics services market and the logistics real estate market. The state of competition in this market. Features and real barriers to entry. Analysis of the possibility of expanding or re-profiling the business, as well as the sale of the object.
8.	Local-territorial diagnostics of logistics infrastructure	Availability and characteristics of logistics and transport infrastructure for use. Estimation of capacity of logistics infrastructure and transport systems.
9.	Organizational and economic analysis of the place of localization	Estimation of land value, construction cost and other costs associated with the construction and operation of the facility. Assess the feasibility and cost of regional resources through the operation of the facility. Assessment of the possibility and cost of regional operational resources and their compliance with established requirements. Estimation of economic costs from the most probable threats.
10.	Functional diagnostics of a logistics facility	Assessment of the possibility of placing the necessary infrastructure and creating conditions for the implementation of established standards of customer service.
11.	Composition, structure and resource needs	Availability of human resources with appropriate skills and qualifications. Availability of energy resources and costs for creating reliable sources of energy supply and sewerage.
12.	Consumer groups and potential opportunities and threats to meet their requirements	The structure and features of consumer requirements, the specifics of their requests, the degree of loyalty and commitment of the company, willingness to compromise on the quality and timing of service.

In the researched scientific sources considerable attention is paid to economic security of the state in modern conditions. A number of sources address the issues of economic security in the region [12]. A number of scientific papers are devoted to issues of economic security of economic entities that operate at both national and international levels [3].

The economic security of the enterprise in terms of such a factor as the operating system of the enterprise, is considered in separate works. The authors of the publications consider the operating system as an element of the economic security system of the subject of logistics, and not as a tool for managing it. In these publications, the operating system of the enterprise is considered as a separate element of the system of operation of the enterprise. Despite the fact that it is an economically open system, the impact of external and internal threats to its functioning is not taken into account. It is assumed that such threats are insignificant and have little effect on the reliability and efficiency of the operating system. In some cases, the reliability of the operating system is considered its ability to reproduce results for a long time with constant qualitative and quantitative parameters [6].

It is impossible to ignore the fact that the micro-logistics environment contains a significant number of both real and potential threats to the economic security of logistics entities. A generalized classification of threats based on the structuring of areas and types of logistics activities in tab. 2 its assets. A threat is a real or possible event, process or phenomenon that can disrupt the development of the economic security of the logistics entity. The systematization of threats includes groups of threats: areas of logistics management, functional types of logistics activities, phase areas of logistics activities, development of logistics operations system and its elements, and threats in the field of logistics activities [7].

Table 2. Systematization of threats to the micrologistic environment. [5].

<table>
<tr><td colspan="5">Threats of the micrological environment</td></tr>
<tr><td>Threats of the micrologistic environment</td><td>Threats of functional LA</td><td>Threats of phase LA</td><td>Threats to the development of LA</td><td>Threats to the supply of LA</td></tr>
<tr><td>Threats in the field of material flow management</td><td>Threats to processing and realization of orders</td><td>Threats to supply</td><td>Threats to the development of elements of LS</td><td>Threats of regulatory and legal support</td></tr>
<tr><td>Threats in the field of financial flow management</td><td>Transport threats</td><td>Operational threats</td><td>Threats to the development of parts of LS</td><td>Threats to infrastructure</td></tr>
<tr><td>Threats in the field of information flow management</td><td>Threats of warehousing</td><td>Sales threats; distribution</td><td rowspan="3">Threats to the development of integration (connections) of LS</td><td>Threats to organizational support</td></tr>
<tr><td>Threats to inventory management</td><td>Threats to packaging</td><td rowspan="2">Threats of recycling</td><td rowspan="2">Outsourcing threats</td></tr>
<tr><td>Threats in the field of logistics administration and consulting</td><td>Threats to logistics services</td></tr>
</table>

As an existing practical mechanism, we will evaluate managers with different experience in terms of priority of the functions of the economic security system of the subject of logistics activities, which differ significantly (Fig. 1.).

It is established that the logistics system is an adaptive, purposeful and structurally organized system with high organizational and integration and information and communication potential aimed at managing the logistics flows of the logistics entity to ensure the development of its economic security system. Middle managers prefer the physical and financial security of the organization (Fig. 2.). Managers at the level of management are convinced that market (interface) and personnel security are the most important components of the economic security system of the logistics entity.

The leaders of the logistics activities of the borrowed logistics are convinced that information and budget security are the most important components of the economic security system of the logistics entity. According to managers, wholesale and retail market, physical and personnel security are the most important components in the system of economic security of the logistics entity.

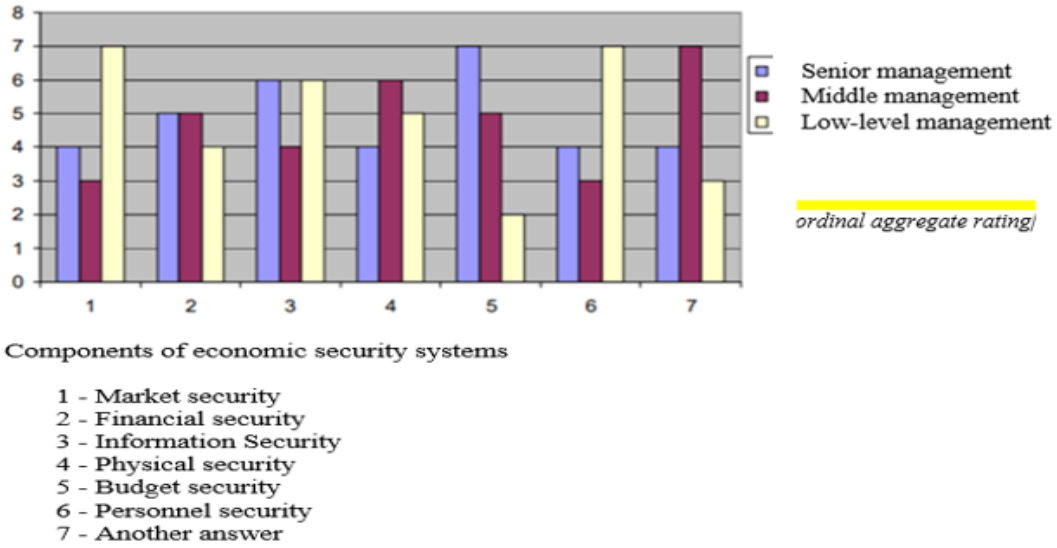


Fig. 1. Components of the economic security system of logistics entities. [11].

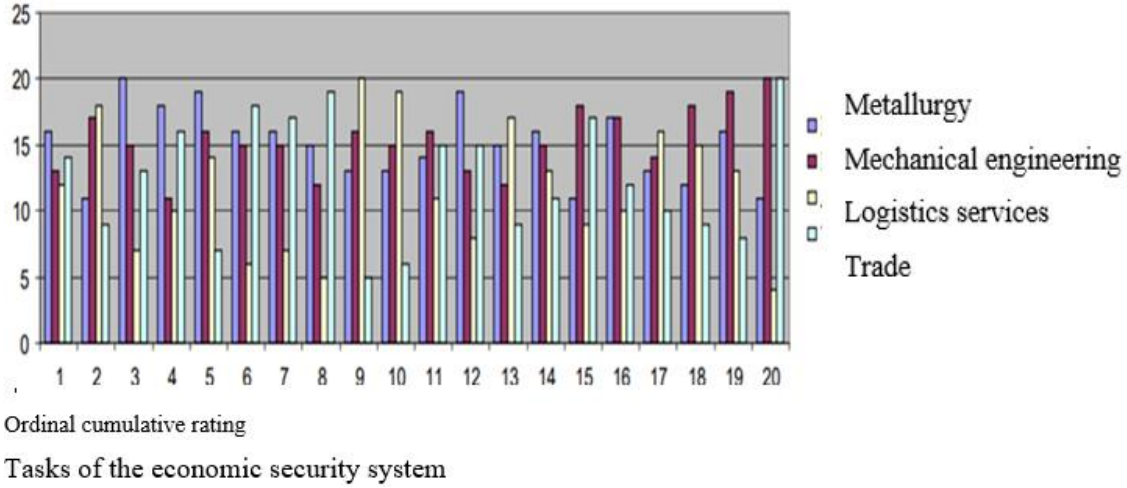
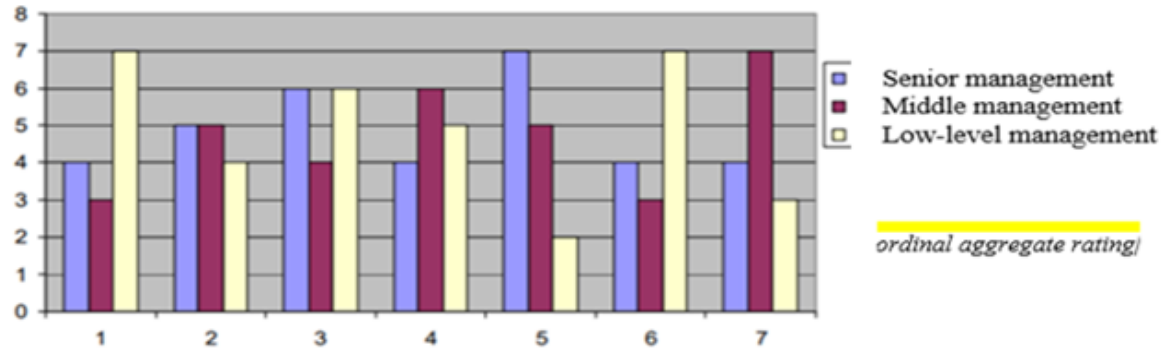


Fig. 2. Tasks of the system of economic security of the subject of logistics activities of different types. [11].

№	TASKS
1.	Ensuring the protection of the economic interests of the founders
2.	Ensuring quality control (goods, services)
3.	Ensuring crime prevention
4.	Ensuring the protection of economic interests
5.	Ensuring the safety of SLA managers
6.	Promoting the sustainable development of the SLA
7.	Protect the property of the SLA and its personnel
8.	Identify disloyal employees of the SLA
9.	To counteract unscrupulous officials, corruption
10.	To organize lobbying of economic interests of SLA in public administration and local self-government bodies
11.	Ensure the safety of SLA personnel
12.	Advise top managers on security issues
13.	To control the activity of the financial director and accounting
14.	To protect trade secrets and intellectual property
15.	Control the structural units of the SLA
16.	Providing assistance in solving security problems
17.	Collect information about the manifestations of negative trends and facts among staff and bring it to the founders
18.	Fight against unfair competitors
19.	Interact with the state law enforcement system

Regarding internal threats, the vision of managers at different levels of the hierarchy differs significantly (Fig. 3).



1 - Improper microclimate in the units, the presence of conflicts between the staff of individual units
2 - Inadequate working conditions for staff
3 - Ignoring the opinions of subordinates by management
4 - Uncertainty of staff in their future
5 - Ignoring the employee by the team for some reason
6 - Administrative pressure on staff
7 - The presence of bad habits in the employee
8 - Impossibility of self-realization
9 - The presence of conflicting relationships between individual leaders
10 - There are no factors that threaten economic security

Fig. 3. Rating of internal systems of economic security of the subject of logistics activities by managers of different levels of the hierarchy. [10].

Conclusions. Based on the studied literature sources, we note that in the first stage of the study, the operating system is an important factor in the system of economic security of the subject of logistics.

This is due to a number of factors: the company only through the creation of this value system becomes a market player; the operating system determines not only the profile of outputs, but determines the features and structure of inputs, from an economic point of view is an open system; this system is complex and poly-structural and carries a number of technical and technological hazards; this system operates in a certain space and contradicts the interests of the subjects of the territorial environment, government agencies, etc.

Thus, the operating system is an important factor in the complex system of economic security of the subject of logistics activities of autonomous logistics, and primarily through the integration of threats to both internal and external environments.

Therefore, the second stage explored the possibility of using the logistics mechanism to ensure the sustainable operation of the operating system as an important factor in the economic security of the logistics entity. The third stage of the study was devoted to the development of methods for implementing the logistics mechanism in an enterprise that produces a product of seasonal demand.

The following assumptions are used in the methodology: the time lag for the implementation of the commercial cycle is insignificant; variation in demand during the planning period is virtually absent; prices may change during the planning period and are not necessarily fixed; monthly sales volumes are defined by existing delivery schedules provided for in existing contracts.

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ANALYSIS AND EVALUATION OF FINANCIAL EDUCATION OF THE POPULATION IN GEORGIA

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Financial education, knowledge, behavior, financial attitudes, individual financial wellbeing, household, planning, budgeting.

ABSTRACT

The article, based on the latest literary sources and comprehensive factual material, studies and assesses the current level of financial education of the population of Georgia; discusses important components of financial education, financial knowledge, financial behavior, and financial relationships; calculates the generalizing rate of financial education of the population. Based on the submitted answers by the respondents, the report derived financial literacy scores. Financial literacy constitutes the combination of financial knowledge, financial behavior, and financial attitudes. These components were studied separately and scores were assigned to each of them individually. The financial knowledge score takes a value between 0-7 based on the 7 core knowledge questions of the survey; the financial behavior score takes a value between 0-9 based on the responses to 9 behavior questions and statements; lastly, the financial attitude score was calculated using a 5-point scale based on an average of the answers to three attitudinal statements. In this case, respondents assessed their attitudes (i.e. how much they agreed or disagreed with given statements) from 1 point (i.e. fully agreed) to 5 points (fully disagreed).
The overall financial literacy score is obtained as the sum of the three individual scores (financial knowledge (7), financial behavior (9), and financial attitudes (5)). Thus, the overall financial literacy score can take a value between 1 to 21 and can also be normalized by multiplying to 100 (100/21). Both scales - i.e. 21-point scale and 100-point scale- are used throughout this document for reporting purposes.

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Introduction. In recent years, financial literacy has gained a prominent position in the policy agenda of many countries. The OECD International Network on Financial Education (OECD/INFE) defines financial literacy as "a combination of financial awareness, knowledge, skills, attitudes, and behaviors, necessary to make proper financial decisions and ultimately achieve individual wellbeing". The importance of collecting informative reliable data, on the levels of financial literacy across the adult population has also been widely recognized (OECD/INFE 2015).

This financial literacy research is highly important from the perspective of the National Strategy for Financial Education, which was developed by NBG, with the involvement of different stakeholders, as this exercise helps realistically assess existing levels of financial literacy in the country, define accurate strategic focuses, and measure all progress achieved in the future within the frames of the strategy. The research methodology is primarily based on the OECD/International Network for Financial Education (OECD/INFE) 2015 Toolkit for Measuring Financial Literacy and Financial Inclusion.

The data, collected within the frames of this financial literacy research helps assess existing levels of financial literacy in the country, shows which groups of the population are the most in need of financial education, demonstrates the gaps in the provision of financial education, serves as a baseline and helps set benchmarks for the overall National Strategy for Financial Education, as well as for individual programs.

This document is based on the collected data in Georgia, primarily using the OECD/INFE 2015 Toolkit for Measuring Financial Literacy. The OECD/INFE questionnaire covers such - core topics of financial literacy, as the knowledge of key financial concepts and the ability to apply them in real life; managing personal and household finances; setting financial goals and striving to achieve them; saving and budgeting; planning for unexpected financial challenges and retirement; borrowing and managing loans; awareness and use of financial products, etc.

Materials and Methods. Within the framework of the research, 1100 respondents (age: 18+) were interviewed by face-to-face survey method across the country. There was used a stratified cluster sampling method. The selection was made according to the regions and the type of settlement. Sampling points were selected in proportion to the population; adults were selected randomly in households, based on the "last birthday principle" (adults who had the birthday most recently were chosen as respondents). The fieldwork was conducted between April 1 and April 25, 2020.

In addition to basic frequency analysis, this research includes factorial and statistical analysis using the Affinity Index. Below is a description of these two statistical analysis models.

Factorial analysis. The factorial analysis is a general name, denoting a class of procedures used for primary data reduction and summarization. The factorial analysis is a method of interdependence that examines the entire set of interdependent relationships without distinguishing between the dependent and independent variables.

The factorial analysis is used in the following cases:

- To identify key parameters or factors that explain correlations between a set of variables;
- To identify a new, smaller set of uncorrelated variables to replace the original set of correlated variables in subsequent multivariate analysis (regression or discriminant analysis);
- To identify a smaller set of salient variables from a larger set for use in subsequent multivariate analysis.

Mathematically, each variable is expressed as a linear combination of underlying factors. The co-variation among the variables is described in terms of a small number of common factors plus a unique factor for each variable. If the variables are standardized, the factor model may be represented as:

$$Xi = Ai1\ F1 + Ai2\ F2 + Ai3\ F3 + \ldots + AimFm + Vi\ Ui$$

X i = i th standardized variable;
Aij = standardized multiple regression coefficients of variable i, on common factor j;
F = common factor;
Vi = standardized regression coefficient of variable ion unique factor i;
Ui = the unique factor for variable i;
m = number of common factors.

The unique factors are uncorrelated with each other and with the common factors. The common factors themselves can be expressed as linear combinations of the observed variables:

$$Fi = Wi1X1 + Wi2\ X2 + Wi3\ X3 + \ldots + WikXk$$

Fi = estimate of i th factor;
Wi = weight or factor score coefficient;
k = number of variables.

Within the frames of this financial literacy and financial inclusion study, factorial analysis was performed to divide the Georgian population into groups, based on different criteria, and to analyze these groups individually. The criteria included: actions taken to achieve financial goals; retirement plans; financial products in use; money management styles.

Affinity Index-based Analysis: The affinity Index shows the ratio of specific indicators in a given target group to the total population. Within the frames of this study, the Affinity Index was used to determine specific characteristics of certain groups.

Example 1: The average financial literacy score of the Georgian population is 58.8 out of max 100. Working in top management has received the highest financial literacy scores (70.9) within the employed segment, and its Affinity Index (AFFX) is 118.

The affinity index for the top management group was calculated using the following method = Top management group's financial literacy score X 100 / the Georgian population's average financial literacy score (70.9 X 100 / 58.8 = 121).

Conclusion: There is an 18% more probability of meeting the segment with above-average financial literacy levels in the Top Management group.

Example 2: 47% of the Georgian population is male. 65% of Business-minded segment is male. The Affinity Index for Business-minded males = 65% X 100 / 47% = 140.

Conclusion. There is a 40% higher probability of meeting men in the Business-Minded segment than men in the total population of Georgia.

Interpretation.

- If the Affinity index >100, this means that the proportion of people in a specific target group is higher than the total population.
- If the Affinity index =100, this means that the proportion of people in a specific target group equals their proportion to the total population.

Results and Discussion. As a result of the research, it was found that Financial knowledge is an essential component of financial literacy, as far as having adequate and reliable knowledge allows individuals to compare financial products and make appropriate, well-informed financial decisions.

Basic knowledge of financial concepts and the ability to apply numeracy skills in a financial context also ensure that individuals can act autonomy to manage their financial matters and appropriately react to challenges and other events that may have implications for their financial well-being.

Table 1. Knowledge test questions

Question code	Text	Possible answers	Purpose
QK2	Imagine that five brothers have gotten a gift of GEL 1,000 in total. If the brothers have to share the money equally how much does each one get?	Open answer [Correct answer GEL 200]	Test the ability to perform basic mental arithmetic in a financial context.
QK3	Imagine that five brothers have gotten a gift of GEL 1,000 in total and brothers have to share the money equally. If they have to wait for one year to get their part of the GEL1,000 and inflation stays at 5% percent. In one year will they be able to buy.	Multiple choice [correct answer 'less with their share of the money than they could buy today or 'It depends on the types of things that they want to buy]	Test the ability to understand how inflation impacts purchasing power
QK4	You have lent 25 GEL to a friend and he gave you 25 back the next day. How much interest he has paid on this loan?	Open answer [correct answer 'none'/0]	To test the understanding of interest without difficult arithmetic
QK5	Let's say you put 100 GEL in a savings account without commission and taxes with a guaranteed interest rate of 2% per year. You do not make any further payments to this account or withdraw money. How much will be on the account at the end of the first year after interest has been paid?	Open answer [correct answer GEL102]	Test the ability to calculate simple interest on savings
QK6	How much will be in the account at the end of five years? [add if necessary: remembering there are no fees or tax deductions].	Multiple choice [Correct answer More than110 GEL, but only taken into account if QK5 is correct]	test whether the respondent is aware of the additional benefit of compounding
QK7a	If someone offers you to make a lot of money, likely, you will also lose a lot of money.	There is likely a chance that you will lose money. True/False [correct answer: True]	test whether respondent understands the typical relationship between risk and profit
QK7b	High inflation means that the cost of living is increasing rapidly	True/False [correct answer: True]	check to understand the meaning of the term inflation
QK7c	Usually, it is possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares or it is less likely that you will lose all of your money if you save it in more than one place.	True/False [correct answer: True]	Test whether the respondent is aware of the benefit of diversification

The evidence indicates that higher levels of financial knowledge are associated with positive financial outcomes, such as planning for retirement, as well as with the decline in negative outcomes, such as debt accumulation. A financially literate person should have some basic knowledge of key financial concepts and the ability to apply numeracy skills in financial situations. The questionnaire includes 7 questions designed to test knowledge concerning financial concepts, such as simple and compound interest, risks, inflation, and profitability. Please see Table 1 for the detailed list of 7 knowledge questions.

The seven knowledge questions provide a good overview of a person's basic knowledge, his/her general willingness to absorb financial information, and ability to solve particular problems.

The financial knowledge score is created by counting the number of correct answers given by each respondent to 7 questions, which cover main financial concepts (Table 1). According to the OECD/INFE methodology, a high level of financial knowledge is defined as 5 or more correct responses to these 7 questions (i.e. answering at least 70% of the questions correctly). In Georgia's case, 54% of the respondents achieved this score, indicating that about half of the population is reasonably knowledgeable. The average financial knowledge score for the entire population is 4.5 out of a maximum of 7.

60% of the Georgian population knows what happens to the purchasing power of money if inflation stays at the same level for one year (QK3). Further, 94% of the population understands the concept of interest, and correctly identified that no interest had been paid on the loan in question QK4 in Table 1.

The concern is a large number of the population who could not calculate simple interest (percentage) on a savings account over one year (QK5), as well as the impact of compounding over 5 years. Only 51% of the population was able to calculate simple interest correctly, and 54% of the population failed to identify the impact of compounding on a savings account. Only 22% of the population answered both questions correctly. 79% of citizens understand the basic relationship between risk and profit (QK7a). The definition of inflation (QK7b) is also well known for 85% of the population, while the concept of risk diversification (QK7c) appears to be more challenging. 37% of the respondents were unable to answer this question correctly.

Finally, we can see that most of the respondents can correctly answer simple knowledge-based questions, it is significantly more difficult for them to give correct answers to harder questions (Table 2).

Table 2. Answers to individual financial literacy questions

Correct answers to knowledge questions							
QK3	QK4	QK5	QK6	QK5&6	QK7a	QK7b	QK7c
Time-value of money	Interest paid on a loan	Simple interest on savings	Compounding over 5 years	Combined simple interest and compounding	Risk and profit	Definition of inflation	Diversification
60%	94%	51%	46%	22%	79%	85%	63%

The research included a self-assessment element to test how the respondents feel their knowledge of financial matters compares to other adults. 65% of the respondents say that their level of knowledge of financial affairs is on the middle level. Only 4% of the population's financial knowledge is very high, and 5% - is very low.

If we compare the respondents' assessment of their level of financial knowledge and the actual knowledge scores, we can see that Georgians somewhat underestimate their financial knowledge levels. the average rate of middle-level own knowledge population is about 65%, and 17% - is high, while according to the OECD/INFE methodology, 54% of the population is aware of that. The actions and behavior of consumers determine their financial well-being in both the short and long term. Some behaviors, such as delaying payment of bills or choosing financial products without prior verification, can negatively affect the financial situation of individuals and households. Therefore, it is very important to try to measure financial behavior in any financial literacy survey.

The OECD / INFE Core Questionnaire contains many questions in a variety of styles to inquire about a range of positive and negative behaviors adult population, like thinking and decision-making before

buying, paying bills on time, budgeting, saving, and borrowing. Some of the indicators used to measure financial behavior are based on a 5-point scale, similar to the one used to define attitudes (below you can read more about). this allows the respondent to decide which behavior is the right (Table 3).

Table 3. Statements about behavior

Question code	Text	Possible answers
QF10_1	Before I buy something I carefully consider whether I can afford it	5 point scale: 1=Completely agree; 5=completely disagree
QF10_4	I pay my bills on time	
QF10_6	I keep carefully on my financial issues	
QF10_7	Set long-term financial goals and strive to achieve them	

Respondents who rate themselves at 1 or 2 points on a 5-point scale are financially competent. 90% of surveyed agreed or strongly agreed that they are careful with their purchases. Paying bills on time is also quite common for 89% of the population, followers of their financial issues are 75%. In contrast, fewer respondents (41%) reported that they have long-term financial goals and are striving to achieve them (Table 4).

Table 4. Percentage redistribution of financial behaviors among the population

Carefully considers purchases	Pays bills on time	Keeps a close watch on personal financial affairs	Sets long term goals and strives to achieve them
90%	89%	75%	41%
% of respondents who agreed i.e. put themselves at 1 or 2 on the scale			

The rest of the indicators of financial behavior used in this monograph were created by combining answers to several questions, each of which will be discussed separately below. Therefore, we call them indicators obtained from a combination of several answers.

Budgeting. Budgeting is widely recognized as a valuable money management tool and an essential component of financial literacy. However, it should be noted that the presence of a family budget, but the lack of responsibility for its preparation, or any other financial decisions in the family cannot be considered financially sound behavior. Likewise, a person cannot be considered financially literate if he/she is responsible for financial decisions in a household but does not have a budget at all. Thus, these two indicators were combined to create a single, common indicator, which, based on two questions given in Columns 1 and 2 of Table 5 identifies those individuals who take full or partial responsibility for financial matters in a household with a budget (Table 5, Column3).

As you can see from Table 5 below, 57% of respondents usually have a budget and also take responsibility for financial decisions in the family.

Table 5. Household financial decisions and budgeting

Who is responsible for making day-to-day decisions in your household?	Does your household have a budget? [Yes]	Responsible for financial decisions in a household with a budget
87%	64%	57%
% making decisions by themselves or with someone else	% responding yes	% making decisions and reporting that the household has a budget

The analysis of the separate components (Columns 1 and 2) of this combined indicator shows that most of those surveyed (87%) take at least some responsibility for household financial decisions, rendering this question a poor determinant of financial literacy by itself, as evidenced by the results obtained through this study. As it shows, 64% of the respondents have a budget in a household.

„Active" saving: Saving is considered to be an essential prerequisite for financial well-being. Those who save normally, better manage their finances, achieve financial goals, and solve financial problems.

The OECD / INFE tool, in addition to regular contributors, aims to identify "active" contributors. The indicator of "active" saving takes into account only "active" methods of saving, which means, those answers are considered actions that were taken by the respondent during the last

12 months. For example, saving in the account is not considered active because there is no activity or processing in it, and those who have access to the bank account have options to choose other, more appropriate methods for saving, such as deposit (OECD / INFE 2016) ... The "active" saving indicator reflects the behavior of savings (ie, putting aside a portion of current income for future use) rather than the quality of the savings available; therefore, it combines various forms of savings, including informal financial products and the purchase of gold or any other property. The results of the survey show that in Georgia 38% of adults save in some way (35% being „active savers "according to OECD/INFE methodology). With low-income and less financially literate consumers mostly saving informally at home; saving methods will be discussed below in more detail.

Shopping of financial products: The indicator for shopping of products combines two questions, presented in Table 6 below. These questions are only asked to people who have made a product choice. In case a respondent had purchased more than one product, the interviewer asked him/her to focus on the most recently chosen product. This design is intended to ensure that the respondent remembers the process.

Table 6. Questions about product selection

Question-wording	Question wording	Answers	Notes
Qprod2	Which of the following statements best describes how you made your choice?	a) I considered several options from different companies before making my decision; b) I considered the various options from one company; c) I didn't consider any other options at all; d) I looked around but there were no other options to consider.	This question is intended to find out the extent to which respondents looked at the alternative available products. As this question is multiple-choice. Created combined variable indicates if respondents attempted to shop around: Responses a and d are given a value of 1. Other responses, including no product choice, are given the value of 0.
Qprod3	Which sources of information do you feel most influenced {which one is taken out}?	There are various examples, and countries have also included their own: Product-specific information, best-buy guidance, general advice, media coverage, adverts, etc.	This question is designed to capture information about to which respondents use different types of guidance. Multiple answers are possible: answer coded 1 if they used some types of specific or general information, and 2 if they used independent, professional sources of information.

The answers to the mentioned two questions showed that only 32.9% of Georgians have tried to look closely at financial products before deciding over the past 2 years. 23.5% of the population did not consider any other options at all, although they had several options.

Deciding to choose a product over the recent period, most of the respondents relied on the information picked up in a bank office (20%), while 17% of the population made this decision based on personal experience, and another (17%) relied on a friend's advice. It is interesting that in total, 11% of the respondents relied on adverts of different media (TV, SMS, etc.), and other information sources had an influence on less than 4% of the audience. Seeking an independent advisor's recommendation is not a common practice in Georgia.

Shortfalls: The OECD/INFE questionnaire includes questions of the respondent's ability to make ends meet, and analyzes their strategies when income does not reach living costs (Table 7). The indicator created from the 2 relevant questions gives a score of 1 to those respondents who have either: a) not faced a shortfall in income during the past year (indicating good financial literacy skills in terms of budgeting and financial management) or b) have fallen in the past, but did not borrow to pay their bills (shows that they already had plans to deal with such situations). Those who borrowed money to make ends had scored 0.

The results show that 62% of the population faced income shortfalls in the past 12 months (Table 8, Column 1), and 45% of the respondents borrowed to make ends meet (Table 8, Column 2), it means that many people do it. Some people do not have minimal savings for such events or they have already exhausted their savings.

Table 7. Questions about shortfalls

Question number	Question-wording	answers	Notes
QF11	Sometimes people recognized that their income does not cover their living costs. Has this happened to you personally in the last 12 months?	answer yes/no	
QF12	What did you do to fix the problem the last time?	Multiple answers allowed	This question was used to identify respondents who are borrowing or not meeting existing financial obligations to make ends meet.

Table 8. Answers to questions

Respondent reported that their income did not always cover their living costs	Respondent borrowed to make ends meet (% of all respondents)
62%	45%

The overall financial behavior score counts positive behaviors which are in the answers to the questions. A minimum value of the behavior score takes 0, and a maximum value is 9. According to the OECD/INFE methodology, a score - 6 or more is considered high, reflecting the proportion of respondents at least 2/3 of the positive behaviors. Only 36% of surveyed in Georgia achieved a behavior score of 6 or more. Research shows that some respondents demonstrated all of the positive behaviors assessed in this study; most people display positive behavior. The average assessment of Georgia's population behavior is 5.0 from the 9 possible.

The OECD/INFE definition of financial literacy recognizes the fact, if individuals have sufficient knowledge and ability to act in a particular, positive way, their attitude may negatively influence their decisions regarding what actions to carry out. For instance, if a person has a negative attitude towards saving for their future, it means that there will be less inclined to undertake such behavior. Further, if individuals prefer to prioritize short-term needs over long-term, then they are not able to build up emergency savings or to plan long-term financially (OECD/INFE 2012).

Therefore, the financial literacy research included three factors of statements to measure respondents' attitudes towards money and finance at all, and also planning for the future (Table 9). These statements ask respondents to use a 5-point scale to indicate whether they agree or disagree with particular statements to capture their disposition or preferences.

Table 9. Provisions on financial relations

Question code	Text	Possible answers	Notes
QF10 - 2	I tend to live for today and let tomorrow take care of itself	5-point scale: 1=Completely agree; 5=completely disagree	To indicate whether the respondent focuses exclusively on the short–term goals (agrees) or has a preference for longer-term security (disagrees).
QF10 - 3	I prefer to spend money than to save it for the long term		
QF10 - 8	Money needs to be spent		

If we look at these questions in detail, we could find that few respondents (32%) prefer to save than to spend. Further, the Georgian population is not conservative with money, only 7% disagree with the statement that money needs to be spent (Table 10).

The fact that fewer people disagree with the statement that "money should be spent" than with the statement "I believe spending money is better than saving for the long term" may indicate that the population has a practical point of view. On the purpose of money as a form of exchange; however, these results also suggest that surveyed audiences do not see the future potential of money and these people are likely to not make adequate savings.

Table 10. Distribution of negative responses to dependent provisions

Percentage of Disagreeing Attitude Statement - Demonstrating Long Term Preference			
	it is much better to spend than save it for the long term	I prefer to live for today and let tomorrow take care of itself	Money needs to be spent
Disagree	32%	68%	7%
% put themselves at 4 or 5 on the scale (disagreeing or strongly disagreeing with statements)			

On a 5-point scale, used for the attitude statements, 1 point indicates short-term financial preferences, and 5 points indicate long-term preferences. The average of the three responses shows to compare overall attitudes towards short-term versus the long-term vision of finance management. According to the OECD / INFE methodology, an average above 3 is considered a "high" score. In Georgia, 34% of the population received more than 3 points, which means that 34% of the respondents prefer long-term financial thinking. The average attitude score of the population is 2.8 out of the maximum of 5 points.

As already mentioned, financial education is a complex concept and it is a combination of knowledge, attitudes, and behaviors. Now we discuss the overall indicator of financial education, which is a combination of the indicators of knowledge, behaviors, and attitudes. The overall score presented here is the sum of respondents' scores on knowledge (0-7), behavior (0-9), and attitudes (1-5). Once again, the overall score can take any value between 1 and 21.

Table 11 reports a breakdown of overall financial literacy scores by demographic. As you can see, the average overall assessment of financial literacy of the Georgian population is 12.3 points on a 21-point scale, which is an intermediate result indicating the need to strengthen initiatives to improve financial literacy in the country.

Table 11. Average scores of financial education in a demographic context (21-point scale)

Highlights	**Points**
1	*2*
GENDER	
Female	12.4
Male	12.3
AGE	
18 -25 year	12.5
26-35 Years	12.5
36-45 Years	13.0
46 - 55 Years	12.5
56 - 65 Years	12.2
66 and more	11.4
EDUCATIONAL LEVEL	
University-level education	13.0
Technical education	12.1
Complete secondary school	12.0
Some secondary school level	10.3
Complete primary school	9.3
INCOME	
Up to 550 GEL a month	11.8
Between 551 and 900 GEL a month	13.1
901 GEL or more a month	13.4
REGION	
Imereti	13.0
Tbilisi	12.7
Adjara	12.5
Kakheti	12.5
Kvemo Kartli	12.2
Guria	12.0
Shida Kartli	11.6
Mtskheta - Mtianeti	11.1
Samegrelo	11.4
Samtskhe-Javakheti	11.6

Continuation of table 11.

1	*2*
SETTLEMENT TYPE	
City	12.6
Village	12.0
LANGUAGE GROUP	
Georgian-speaking	12.4
Other languages	11.8
EMPLOYMENT	
Self-employed	13.3
In paid employment Apprentice	13.1
Looking after the home	10.6
Looking for work [unemployed]	12.4
Retired	12.1
Unable to work due to sickness or ill-health	11.4
Not working	11.0
Not looking for work	11.2
Students	13.4
OCCUPATION	
Top Management (incl. government)	14.9
Specialist-Professional	13.7
Industrial machinery operators and installers	13.6
Specialist and assistant professions	13.2
Non-qualified worker	12.9
Service and retail personal	12.9
Office Personal	12.7
Armed force	12.4
Specialist or other qualified workers	11.9
Agriculture workers	11.3
Total	12.3

Table 12 presents overall demographic financial literacy scores of a 100 point scale system. The average financial literacy score for the entire population equals 58.8. Scores are calculated by the behavioral scores out of 21 possible scores.

Table 12. Average scores of financial education in demographic context (100-point scale)

Highlights	**Points**
1	*2*
GENDER	
Female	58.9
Male	58.7
AGE	
18 -25 year	59.5
26-35 Years	59.5
36-45 Years	62.0
46 - 55 Years	59.4
56 - 65 Years	57.9
66 and more	54.2
EDUCATIONAL LEVEL	
University-level education	62.0
Technical education	57.8
Complete secondary school	57.1
Some secondary school level	48.8
Complete primary school	44.4
INCOME	
Up to 550 GEL a month	56.0
Between 551 and 900 GEL a month	62.4
901 GEL or more a month	63.6

Continuation of table 12.

1	*2*
REGION	
Imereti	62.1
Tbilisi	60.5
Adjara	59.5
Kakheti	59.4
Kvemo Kartli	58.1
Guria	57.0
Shida Kartli	55.0
Mtskheta - Mtianeti	52.7
Samegrelo	54.1
Samtskhe-Javakheti	55.1
SETTLEMENT TYPE	
City	60.2
Village	56.9
LANGUAGE GROUP	
Georgian-speaking	59.0
Other languages	56.3
EMPLOYMENT	
Self-employed [work for myself]	63.4
In paid employment [work for SMN else]	
Apprentice	62.4
Looking after the home	50.5
Looking for work [unemployed]	59.2
Retired	57.4
Unable to work due to sickness or ill-health	54.5
Not working and not looking for work	52.4
Student	53.2
	64.0
OCCUPATION	
Top Management (incl. government)	70.9
Specialist-Professional	65.4
Industrial machinery operators and installers	64.6
Specialist and assistant professions	62.8
Non-qualified worker	61.6
Service and retail personnel	61.3
Office Personnel	60.3
Armed force	59.2
Craftsmen and other qualified workers	56.8
Agriculture worker	54.0
Total	58.8

This reflects a general understanding that financial well-being primarily is the result of positive behavior. And financial education efforts must impact positively to change negative behavior.

Essentially there is no difference in the overall financial literacy score between genders. Men showed slightly better results in financial knowledge scores; on the other hand, women achieved somewhat higher financial condition scores. But generally, both genders received the same behavior scores.

There is a noticeable variation in financial literacy levels by age and income. According to Table 12, younger and middle-aged (age: 18-55) respondents showed higher levels of financial literacy than the oldest respondents (age: 56+). The highest overall financial literacy score was attained by respondents aged 36 to 45 (62.0 points out of 100), and the lowest scores were received by respondents over 66 years old (54.2). There is a positive link between general education levels and financial literacy. Better educated individuals have higher literacy scores. people with university education got the highest scores (62.0 points), completing secondary school education received 57.1 points, and primary school educated received only 44.4 points.

In general, the urban population displayed higher financial literacy levels than the rural population. Imereti (62.1), Tbilisi (60.5), and Adjara (59.5) achieved above middle-level financial

literacy scores, while Mtskheta-Mtianeti (52.7), Samegrelo (54.1), and Shida Kartli (55.0) received the lowest overall financial literacy scores. Georgian-speaking respondents reached higher financial literacy scores (59.0) than non-Georgian speakers (on average 56.3). This may be due to the language barrier of a particular population who have the limited ability of information choices.

There is a positive correlation between financial literacy and employment status. Higher financial literacy leads to improved employment levels; employed respondents and students attained above-average literacy scores compared to their other unemployed peers. In terms of the employed population, the highest financial literacy scores have attained the respondents in the top management positions (including, legislators and government officials, - 70.9) and specialist professionals (65.4). Craftsmen, specialists, and other workers (56.8), agriculture workers received the lowest financial literacy scores (54.0).

Conclusions. In the modern world, the accessibility and the complexity of financial services grow in parallel with the rapid development of the financial system. Therefore, it is imperative to equip individuals with the capacity for managing their finances well and for making the best financial decisions.

This research aimed at examining the existing levels of financial literacy in the country, which is essential for setting informed objectives, choosing effective approaches, and allocating resources wisely within the frames of the National Strategy for Financial Education.

The research has established the following key findings:

- Financial knowledge of the Georgian population is on the intermediate level: most of the respondents can perform elementary calculations on "simple" interest (94%), and understand key financial concepts, such as inflation (85%) and risk and profit (79%); however, far fewer respondents understand the time value of money (60%) and the concept of diversification (63%). half of surveyed can neither calculate simple interest on a deposit (51%) nor detect the impact of compounding (46%). Overall, most respondents gave correct answers to simple questions; however, more difficult questions remain a challenge for them.
- Smart financial behavior is one of the main determinants of financial well-being. This research analyzed a range of financial behaviors characterizing the Georgian society, including, expenditures planning, saving, and use of financial products, such as loans and deposits, and in conclusion, the financial behavior of the population can be assessed as mixed. Some important responsible behaviors, such as paying bills on time (89%) and keeping a close watch on personal finances (75%) can be widely observed across the population. Further, about 38% of the respondents saved money in some way over the past year. However, only 41% of the population sets long-term goals and strives to achieve them, and 45% of the surveyed audience has borrowed when their income did not cover their expenses. Those with little income and low financial literacy levels usually save at home and rarely use formal methods, while those with higher financial literacy and income levels increasingly use bank accounts and investment products for saving, which shows that there is a strong link between the use of formal means of saving, on the one hand, and income and financial education levels on the other.
- People's attitudes and preferences towards finances determine their behavior. The analysis of financial attitudes reveals that only 32% of the population enjoys saving more than spending and the vast majority consider that money needs to be spent. Furthermore, about 66% of the respondents focus on short-term financial needs instead of long-term financial goals, which raises concerns regarding financial security and sustainability.

The findings of the present research are important for setting certain standards and orientations in the field of financial education, and for developing financial literacy programs. The overall financial literacy levels of the Georgian population can be assessed as intermediate, leaving wide space for improvement.

The results of the research reveal a significant gap between the literacy levels of different segments of the population, highlighting the need for diversified approaches. To attain sustainable progress, financial literacy efforts must focus not only on improving the knowledge but also on positively changing the target audience's behavior and attitudes, as significant gaps can be observed in these directions as well.

Finally, improving financial literacy levels in the country is a complex task. Involvement of different stakeholders and ensuring the provision of financial education through diversified venues, including, both - formal and non-formal educational settings, is indispensable.

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МІЖВІДОМЧЕ СПІВРОБІТНИЦТВО В УПРАВЛІННІ РИЗИКАМИ БІОЛОГІЧНИХ НЕБЕЗПЕК

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ABSTRACT

Many countries have already developed and implemented a large number of specific measures to combat natural disasters and reduce the risk of each type of disaster. The article emphasizes that biological hazards differ from other hazards in that it is difficult to predict not only when an event will occur, but also which biological agent will cause a catastrophe that will lead to a specific scenario and whether it will be natural, accidental or intentional. Thus, "biological hazard" describes a much broader and more freely defined area than in the case of hazards whose mechanisms are easier to predict.

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Вступ. Біологічні небезпеки − це різнорідне поєднання сценаріїв, які дуже різняться за параметрами. Існує неоднорідність агентів, географічне охоплення, ступінь людського впливу, очікувані наслідки (хвороба, смерть, руйнування на різних рівнях), ймовірність, (не) існуючий досвід та багато іншого. Таким чином, термін «біологічна небезпека» описує набагато ширший набір сценаріїв, ніж у разі інших природних чи техногенних небезпек. Для учасників управління катастрофами (включаючи запобігання та забезпечення готовності) особливо складно зрозуміти цю складність та вжити відповідних заходів. Особи, які приймають рішення, повинні якнайкраще обґрунтовувати свої рішення. Визнано, що для цього найкраще підходять об'єктивні наукові (позитивістські) підходи. Суб'єкти управління ризиками та стихійними лихами розробляють та використовують такі підходи протягом багатьох років.

Аналіз останніх досліджень і публікацій. В іноземних наукових колах дедалі частіше згадується необхідність застосування нових підходів у сфері регулювання природної та техногенної безпеки, що спираються на поняття ризику. Проблематика інституційних, організаційних, правових та інших аспектів державного управління безпекою, зокрема з питань запобігання біологічних небезпек і зниження ризиків їх виникнення, відображена у працях Александр Д., Аткінсон М., Гронвал Г., Краусе Г., Тейлор Т. та ін.

Мета статті. Головна мета статті – вирішити конкретні проблеми міжвідомчої координації щодо зменшення ризику біологічної небезпеки; запропонувати підхід, який дозволяє створювати кластери відповідних акторів певної сфери діяльності шляхом застосування параметрів управління ризиком катастроф.

Матеріали та методи. Проведено аналіз даних щорічних звітів про роботу UNISDR, також проаналізовано всі нормативні та інструктивні засоби. Методологія дослідження базувалася на методах: аналіз, історико-описовий та оцінка ступеня ризику.

Результати дослідження. Коли йдеться про біологічні небезпеки, суб'єкти стикаються з калейдоскопом ризиків катастроф. Одним із способів оцінки та управління складними

проблемами такого роду є застосування концепції управління. UNISDR визначає управління ризиком катастроф як «систему інститутів, механізмів, політичних та правових рамок та інших механізмів для керівництва, координації та нагляду за зменшенням ризику катастроф і пов'язаними з ними сферами політики» [1].

Частина дискурсу про врядування стосується концепцій «хорошого» та «поганого» управління. «Хороше» управління відповідає принципам участі, підзвітності, прозорості, справедливості та ефективності в державному управлінні. Управління ризиком катастроф може стимулювати ці елементи, наприклад, коли воно включає участь громадянського суспільства та підходи на рівні спільнот. Навпаки, «погане» врядування є однією з основних причин підвищення рівня ризику катастроф. Концепція «основних факторів ризику катастроф» також включає соціальний вимір, оскільки враховує обставини різних груп з точки зору їхнього впливу та вразливості.

Підхід до управління ризиками вимагає врахування ширшого кола інституційних акторів і механізмів для сприяння управлінню ризиками лих, що також відображено в Сендайській рамковій програмі по зниженню ризику лих (учасником якої є і Україна): «Управління ризиками катастроф на національному, регіональному та глобальному рівнях має велике значення для ефективного та дієвого управління ризиком катастроф. Потрібні чітке бачення, плани, компетентність, керівництво та координація всередині та між секторами, а також участь відповідних зацікавлених сторін. Посилення управління ризиками катастроф для запобігання, пом'якшення, готовності, реагування, відновлення та реабілітації є, таким чином, необхідним і сприяє співпраці та партнерству між механізмами та установами для впровадження інструментів, що стосуються зменшення ризику катастроф і сталого розвитку» [2].

Хоча ця вимога є консенсусом на рівні політики, насправді управління ризиком катастроф, як правило, є фрагментованим через ізольовані підходи суб'єктів, які визначаються їх компетенцією та юрисдикцією. У цьому контексті Джонатан Ласса приходить до висновку, що «проблема не в ризиках, а в інститутах та типах інституціоналізму, які формують способи управління ризиками катастроф» [3]. Проаналізований тут підхід вирішує цю проблему шляхом ефективнішої організації діяльності установ, які можуть брати участь у управлінні ризиками.

Це розуміння призводить до питання про те, як найкраще оцінювати та керувати інституціями, що займаються проблемами біологічної небезпеки та механізмами їх взаємодії.

Навіть у більш вузькій сфері діяльності органів з питань надзвичайних ситуацій та катастроф відбувся частковий перехід від орієнтованої на війну низхідної цивільної оборони до орієнтованої на стихійні лиха висхідній системі цивільного захисту, яка більше покладається на координацію та співпрацю, ніж на чіткі ланцюги командування.

З інтенсивністю біологічної події кількість залучених акторів збільшується, і агентства, які не мають формальних стосунків за звичайних обставин, змушені співпрацювати.

Застосування ширшої концепції управління до біологічних небезпек підпорядковує мережу учасників двом ключовим багато секторним розширенням:

по-перше, на відміну від реагування на небіологічні катастрофи, яке в основному здійснюється бюрократією, пов'язаною зі стихійними лихами (органи цивільного захисту, охорони здоров'я, військові та правоохоронні органи), біологічні катастрофи також включають «віддалені» органи влади – на всіх рівнях, від міжнародного до місцевого – які займаються такими питаннями, як здоров'я тварин, продукти харчування, навколишнє середовище та сільське господарство;

по-друге, на відміну від класичних процесів підпорядкування, управління стосується не лише державних установ, а й залучення всіх відповідних зацікавлених сторін, таких як суспільство, приватний бізнес, неурядові організації та наукові кола.

Звичайно, жоден орган влади не може наказати дотримуватись цього різноманіття учасників. Натомість управління здійснюється за допомогою таких інструментів, як державне регулювання та саморегулювання; ринкові механізми; та інші процеси, такі як переговори, участь і залучення, які сприяють прийняттю колективних рішень і дій.

Багато секторний підхід може призвести до постійного вдосконалення планування шляхом визначення змінних спільних завдань. Це не тільки покращить результати комплексного зниження ризику катастроф, але й дасть тим, хто бере участь, ширший погляд і краще розуміння проблем, одночасно покращуючи міжвідомче розуміння та впорядковуючи зв'язки. Встановлення міжвідомчої точки зору є важливим, оскільки інакше різні інституційні рамки можуть призвести до «конкуруючого розуміння природи проблеми та засобів її вирішення» [4].

Отже, управлінський підхід є центральним керівним принципом Сендайської рамкової програми: «Зменшення ризику катастроф і управління ними залежить від механізмів координації всередині й між секторами та з відповідними зацікавленими сторонами на всіх рівнях, і це вимагає повної участі всіх державних інститутів виконавчого та законодавчого характеру на національному та місцевому рівнях, і чіткого визначення відповідальності між державними і приватними зацікавленими сторонами, включаючи бізнес та академічні кола, для забезпечення взаємного охоплення, партнерства, взаємодоповнюваності ролей, підзвітності й подальших заходів».

Хоча зменшення ризику катастроф завжди є складною сферою, біологічні небезпеки ускладнюють ситуацію, примножуючи різноманітність і складність ризиків. Ця складність також відображається на кількості задіяних акторів. Тому, навіть якщо реалізується багато окремих заходів щодо стримування біологічної небезпеки, зв'язок між ними часто слабкий.

Однією з очевидних пропозицій у тому, як сприяти управлінню ризиками біологічної небезпеки катастроф, — це об'єднати всіх учасників. Європейська комісія, наприклад, рекомендувала Європейську біомережу (EBN яка «була б консультативною структурою, що об'єднала б європейський досвід у галузі біологічної безпеки з різних секторів: дослідницької спільноти, приватного та державного секторів (включаючи безпекову та розвідувальну спільноту, органи цивільного захисту та служби швидкого реагування)) [5].

Хоча форматів такого роду може бути достатньо в багатьох сферах, ми вважаємо коло суб'єктів зменшення ризику біологічної небезпеки надто широким і неоднорідним для універсальних структур такого роду.

Деякі з цих підводних каменів можна подолати шляхом систематичної оцінки та групування елементів і суб'єктів зменшення ризику біологічної небезпеки. Проста ідея полягає в тому, щоб класифікувати кожен елемент і суб'єкта за допомогою набору параметрів управління ризиком лих, що дозволяє сортувати за більш ніж одним критерієм (див. таблицю 1). Частковий збіг елементів та дійових осіб створює для кожного елемента арену управління ризиками лих, що складається з усіх відповідних учасників.

Таблиця 1. Виміри управління ризиками біологічних небезпек

(Гео-) ієрархічний рівень	Сектор	Рівень планування	Учасники
• Міжнародний • Національний/ федеральний • регіональний/ обласний/районний • Місцевий	• Здоров'я • Продукти харчування • Здоров'я тварин • Екологія • Сільське господарство • Пожежно-рятувальна служба • Цивільний захист • Правоохоронні органи • Розвідка • Військові • Інформація	• Стратегічний • Оперативний	• Державна організація • Громадська організація • Приватний сектор • Академічний/ дослідницький заклад

Кластеризацію можна здійснити в три етапи:

1. Ідентифікація та класифікація відповідних елементів зменшення ризику біологічної небезпеки катастроф за їхніми вимірами ризику небезпек.

2. Визначення відповідних дійових осіб та класифікація їх за тими самими вимірами ризику небезпек.

3. Створення арен ризику катастроф для кожного елемента, включаючи всіх акторів, які перетинаються принаймні з однією з тих самих категорій у кожному вимірі.

Після групування учасників, можна вибрати відповідну модель міжвідомчої співпраці для підвищення рівня зниження ризику біологічної небезпеки. Ця процедура забезпечує вичерпну відповідь на ці види ризиків, водночас зважаючи на конкретні національні структури.

Для ясності та інтеграції в існуючі методи зниження ризику стихійного лиха елементи систематизовані з використанням Системи управління ризиками стихійного лиха хоча ми визнаємо, що чіткий розподіл елементів не завжди можливий. Ось чому деякі елементи пов'язані з періодом реагування, який зазвичай не є частиною зменшення ризику лиха.

Оцінка ризику – це діагностичний процес для визначення ризиків, з якими стикається суспільство.

Аналіз ризику біологічної небезпеки є складною проблемою у багатьох відношеннях. Тим не менш, щоб підготуватися до катастрофи та визначити пріоритети ресурсів, необхідна попередня оцінка ризику. Для аналізу можливого виникнення загрози, її наслідків та адекватних контрзаходів слід залучати різноманітних суб'єктів. Сценарні методи можуть бути використані для визначення відповідних учасників для оцінки конкретних передбачуваних ризиків. Проходження процесу управління ризиками з цими ризиками, швидше за все, також зміцнить стійкість до інших, непередбачуваних або невивчених ризиків. Існує кілька підходів до оцінки ризику, пов'язаних із багатьма небезпеками, а також спеціалізовані інструменти, наприклад, у сфері безпечності харчових продуктів.

У зв'язку з широким підходом, необхідним у галузі біологічних небезпек, було б корисно сконцентруватися на кількох типових ризиках, що охоплюють різноманітний спектр ризиків, та детально проаналізувати їх. Цей метод можна розуміти як своєрідний стрес-тест для всієї системи управління ризиками катастроф.

Незважаючи на те, що несподівані біологічні загрози та події, що змінюють гру, завжди відбуватимуться, наукові кола та призначені урядові установи повинні провести «сканування горизонту», щоб оцінити вплив нових патогенів та нових (біо)технологій. З огляду на те, що існує тенденція «планувати останню подію, а не наступну», цей метод є особливо важливим.

Частиною управління ризиками є прийняття рішення про те, наскільки ризики вважаються прийнятними. Оскільки в ситуації надзвичайної ситуації страждає широка громадськість, місцеві спільноти мають бути інтегровані у процес таким чином, щоб вони могли співпрацювати у прийнятті відповідних рішень.

Профілактика – заходи, спрямовані на уникнення несприятливого впливу небезпек.

Щоб зменшити ймовірність випадкового вивільнення патогенів, їх неправильного використання та спонукати до обережного поводження з дослідженнями подвійного використання, ключовою концепцією стає підвищення рівня обізнаності серед різних прошарків населення [6].

Щоб запобігти навмисному вивільненню патогенів кримінальними, терористичними і навіть державними суб'єктами, потрібен міжвідомчий підхід для обмеження доступу до цих агентів і товарів подвійного використання, для моніторингу об'єктів, здатних виробляти такі агенти, а також для відстеження та ліквідація груп, які планують вороже використання патогенів. Спільна оцінка ризику біологічних агентів органами охорони здоров'я та правоохоронними органами може допомогти визначити пріоритети використання обмежених ресурсів.

У той час як поліція зазвичай відповідає за реагування на терористичні атаки та злочини загалом, інші служби реагування на надзвичайні ситуації з використанням ХБРЯ також можуть бути залучені до інциденту. У таких випадках всім сторонам корисно знати тактику та навички один одного.

Готовність – заходи та дії, вжиті заздалегідь для забезпечення ефективного реагування.

Для катастроф характерно те, що відповідь завжди буде містити певну імпровізацію, але її можна зменшити за рахунок готовності.

Багатовідомчі плани реагування на катастрофи є потужним інструментом для підвищення готовності до біологічних небезпек. Вони визначають ролі та відповідальність учасників у певній обстановці, яку потім можна перевірити в гіпотетичних умовах. Хоча існує спільна потреба в загальному стратегічному плануванні, в деяких випадках для оперативної співпраці потрібні докладні керівні принципи та стандартні операційні процедури.

Окрім остаточного плану, є ще один, можливо, більш важливий результат спільних процесів планування: взаємодія між відомствами, яка випливає з процесу планування, генерує знання про рутинні функції та заздалегідь заплановані дії інших учасників, а також створює довіру та неформальні контакти.

Те саме стосується спільних тренувань і навчань, які можуть виявити помилки, неефективність, сфери, де відсутність планування створює потребу в імпровізації та інші недоліки поточного планування реагування на катастрофи [9].

Структурний аудит також може допомогти з'ясувати сильні та слабкі сторони антикризових планів. Коли в одному аудиті беруть участь кілька учасників, результати можна порівнювати та спільно обмірковувати, щоб підвищити готовність відомств.

Стандартизація є ключовим заходом загальної готовності, який може покращити комунікацію між відомствами та реагування на біологічні катастрофи. Її слід застосовувати до термінології, систем спостереження, процедур, ресурсів і критеріїв ефективності. На технічному рівні комунікаційні системи мають забезпечувати автоматичний обмін інформацією.

Важливим аспектом управління катастрофами є управління ресурсами. Спеціалізовані бази даних для біологічних інцидентів, які, можливо, обслуговуються призначеними координаційними центрами, можуть допомогти ефективно використати ресурси. Для деяких ресурсів, таких як вакцини та антибіотики, стратегічні запаси значно підвищать результативність реагування на стихійні лиха. Їх можна використовувати не тільки для лікування, але і як превентивний захід у поточних спалахах хвороб.

Враховуючи важливість швидкої ідентифікації патогенів та лікування пацієнтів, існує потреба у мережах лабораторного реагування, включаючи приватні та комерційні лабораторії, щоб прискорити початкове та контрольне дослідження.

Лікарні повинні підготувати плани реагування на катастрофи для масового напливу постраждалих. У разі інфекційних захворювань, необхідні спеціальні ізолятори, навчений персонал та лабораторна інфраструктура. Обслуговування цих ресурсів є дорогим, що особливо обтяжливо для систем охорони здоров'я з оплатою послуг пацієнтом. Одним із рішень може стати створення центрів спеціальної компетентності та лікування інфекційних захворювань. Для підвищення стійкості до біологічних загроз у більш загальному плані центри могли б стати ядром «коаліцій охорони здоров'я» для координації заходів готовності в регіоні, працюючи разом із невеликими лікарнями, іншими медичними установами, службами екстреної допомоги та аптеками.

Поряд із інтеграцією приватних постачальників послуг до управління зниженням ризику біологічної небезпеки, готовність приватного сектора сама по собі відіграє значну роль у створенні стійкості до економічних і соціальних зривів. Існує широкий спектр добровільних стандартів, які можна використовувати для підготовки підприємств до катастроф усіх типів. Забезпечення критичної та життєво важливої інфраструктури також може вимагати законодавчих зусиль.

Потреба в законодавчій та нормативній базі може стосуватися різних сфер – від безпечності харчових продуктів до біобезпеки, а також включає рекомендації щодо безпеки в наукових установах та біокомпаніях [10]. Під час планування зниження ризику катастроф корисно визначити юридично обов’язкові структури, юрисдикції, повноваження та процедури для фази реагування на катастрофу, включаючи дозвіл на екстрене використання вакцин та інших ліків. Встановлення та дотримання як юридично обов’язкових, так і добровільних угод також сприятиме принципам прозорості, надійності та підзвітності управління. Це особливо необхідно для законів про надзвичайний стан, які зачіпають права людини.

Раннє попередження – надання своєчасної та ефективної інформації, щоб уникнути або зменшити ризик.

Біологічні катастрофи, як правило, мають повільний і «тихий» початок, що робить системи спостереження вирішальними для раннього попередження. Вони складаються із засобів для збору добровільних або передбачених законом звітів про окремі інфекції та їх об’єднання, щоб створити загальну картину, що дозволить швидко відреагувати, і, можливо, стримати захворювання на ранній стадії. Хоча такі системи є загальновизнаним стандартом у сфері охорони здоров’я, вони, здається, недостатньо розвинені, коли йдеться про хвороби (диких) тварин і сільськогосподарських культур.

Іншим важливим фактором є підвищення обізнаності та формування знань про техногенні та природні спалахи інфекційних захворювань серед осіб, які реагують на біологічні інциденти. Це можуть бути, залежно від контексту, парамедики, пожежники, поліцейські, фермери, мисливці, лісники, лікарі та інші спеціалісти охорони здоров’я.

У порівнянні з іншими небезпеками, існують лише обмежені технічні можливості виявлення для перевірки біологічних небезпек. Це має бути вирішено шляхом спільних досліджень практиків та наукових установ.

Під час катастроф кризові комунікації органів державної влади із зацікавленими сторонами, такими як громадяни, засоби масової інформації та інші організації реагування, є незамінними [12]. Оскільки суперечливі твердження призведуть до втрати довіри, ціль має полягати в тому, щоб усі задіяні актори говорили єдиним голосом. Зокрема, штучні біологічні події можуть викликати чутки та безпідставні звинувачення, а також інші форми поведінки, викликані страхом. Міждисциплінарні та багатосекторальні національні стратегії інформування про ризики забезпечать більш всеосяжний збір, оцінку та обмін інформацією.

Негайна допомога – надання допомоги під час або відразу після катастрофи.

Для спільного реагування на стихійні лиха потрібна система міжвідомчої координації, яка об'єднує елементи персоналу, процедури, протоколи, бізнес-практики та комунікації. Структура системи залежить від рівня стратегічних і тактичних завдань. На стратегічному рівні могли б бути достатніми засідання спільних кризових комітетів чи рад, які об'єднують різні міністерства. На польовому рівні, здається, необхідні спільні системи управління інцидентами та центри надзвичайних операцій під єдиним командуванням. Одним із заходів співпраці є обмін офіцерами зв'язку між відомствами. Ці структури можуть бути створені неформально або залежно від ситуації, але краще підготувати їх за взаємною згодою заздалегідь.

Для дослідження та боротьби з інфекційними захворюваннями на місці можна заздалегідь створити міжвідомчі регіональні групи реагування на спалахи для підтримки місцевих структур реагування.

Оцінка збитків і втрат – інформація про вплив на активи та збитки для виробництва.

Оцінку стихійного лиха не слід проводити фрагментарно. Загальний аналіз ситуації є ключовим елементом комплексного реагування. Деякі біологічні інциденти можна ідентифікувати, лише зібравши інформацію від різних суб'єктів.

Для тактичного та стратегічного планування операцій чіткий перелік ресурсів реагування, наявних у кожній установі, настільки ж важливий, як і оцінка збитків та втрат.

Відновлення – дії, вжиті після катастрофи з метою відновлення інфраструктури та послуг.

Дезактивація, яка в більшості випадків, пов'язаних із біологічною небезпекою, була б дезінфекцією, є частиною щоденної рутини в секторі охорони здоров'я. Однак, коли справа доходить до великомасштабних інцидентів, таких як значний викид сибірської виразки в міському середовищі, це буде серйозною проблемою. Координація дезактивації може бути підготовлена і здійснена стратегічними та оперативними міжвідомчими групами.

Економічне й соціальне відновлення – заходи, що вживаються для нормалізації економічного та соціального життя.

Біологічні інциденти, зокрема й випадки біотероризму, можуть призвести до психологічних наслідків, які включають стигматизацію та маргіналізацію, страх і травми. Такі ефекти можуть мати тривалий характер. Ось чому важливо забезпечити скоординовані підходи до підтримання психічного здоров'я серед персоналу відповідних установ та піклуватися про психологічне відновлення.

Найважливішими суб'єктами у сфері зменшення ризику катастроф все ще залишаються державні установи, оскільки вони мають владу, повноваження та фінансові ресурси [13]. Тим не менш, учасники громадянського суспільства, такі як волонтери, благодійні організації та громадські організації, які можуть надати ресурси, конкретні знання та прагматичні вказівки, повинні доповнювати провідну роль урядів. Окрім цих прямих переваг, інтеграція суб'єктів громадянського суспільства гарантує вищий ступінь участі та легітимації.

Приватний сектор також стає все більш важливим для цілісного зниження ризику катастроф. З одного боку, він забезпечує життєво важливу інфраструктуру, послуги та ресурси, необхідні для управління катастрофами, а з іншого боку, він може бути як джерелом, так і жертвою біологічної небезпеки.

Для законодавства, що стосується управління ризиками катастроф, законодавці, звичайно, також є відповідними суб'єктами. Зважаючи на те, що закони зазвичай створюються або адаптуються на основі внеску відповідних органів влади, адвокатських груп тощо, ми не вважаємо самих законодавців відповідними дійовими особами в цьому контексті.

Після виділення елементів та функцій у різних галузях стосовно біологічних небезпек, існує кілька різних шляхів встановлення інституційної співпраці. Відповідна модель залежить від завдання та контексту.

Для розробки спільних підходів до зменшення ризику катастроф можна було б створити три рівні управління. На стратегічному рівні це можуть бути керівні групи або ради, де директори та старші спеціалісти визначають керівні принципи міжвідомчої співпраці та забезпечують політичну підзвітність.

Основна координаційна робота буде виконуватися на тактичному рівні групами прийняття рішень, оперативними групами та робочими групами. Вони виконують рішення ради та рекомендують нові пропозиції для розгляду або перегляду.

Для технічних та інших складних завдань створення груп спеціалістів, робочих груп і технічних консультативних груп забезпечує професійні консультаційні механізми для вищих рівнів міжвідомчих структур управління.

Форма співпраці в цих структурах може варіюватися від міжвідомчих груп, які збираються на регулярній основі для обговорення відповідних питань, до міжвідомчих команд, члени яких відряджені, або навіть інтегровані до служб/агенцій з постійним персоналом і завданнями.

Висновки. Біологічні катастрофи можуть бути викликані надзвичайно широким спектром факторів і джерел. Поки що вони переважно були природними подіями, але випадково або навмисно спровоковані катастрофи можуть бути попереду. Існує лише кілька сценаріїв, за якими ми можемо передбачити, як буде виглядати біологічна катастрофа. Але в цілому ми не знаємо, який агент поширіться і в якому масштабі: чи вплине це на людей чи сільське господарство; чи статус катастрофи випливає з показників смертоносності або через потенціал лиха спричинити економічні чи соціальні руйнування. У той час, як імовірнісний аналіз ризику вже є складним завданням для більшості інших видів катастроф, у галузі біології, учасники процесу зниження ризику можуть використовувати його лише для небагатьох сценаріїв, про які ми маємо сукупні знання з минулого. Отже, складність і незнання змушують учасників зниження ризиків (включаючи запобігання, підготовку та реагування) розробляти особливо гнучкі механізми та мережеві структури.

Проаналізований підхід до управління зниженням ризику біологічної небезпеки за допомогою міжвідомчої координації може створити потужні та стійкі структури, які також можуть покращити принципи управління, такі як прозорість, підзвітність та участь. Представлений тут підхід може бути використаний для пошуку потрібних акторів у правильній кооперативній обстановці для виконання певних завдань, враховуючи національні особливості. Завдяки особливій орієнтації та широкому розумінню ризику біологічних небезпек, цей підхід дозволяє систематично і всебічно визначати учасників, що виходять далеко за рамки «старих фаворитів» управління катастрофами. При цьому він спирається на добре описані концепції та створені інститути, але забезпечує основу для більш цілісного управління ризиками катастроф.

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ГРАВИТАЦИОННАЯ МОДЕЛЬ ВНЕШНЕЙ ТОРГОВЛИ МОНГОЛИИ

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ABSTRACT

The article presents an analysis of Mongolia's foreign trade using econometric gravity modeling tools as a popular tool for analyzing international trade flows. To create a model for the development of the Mongolian economy in the context of modern globalization processes, the authors studied exogenous and endogenous models of economic growth. To develop the gravity model of the Mongolian Economy, the current state of Mongolia's foreign trade was studied in the context of the economic situation of the 10 countries of Mongolia's trading partners that most strongly influence the gross trade of Mongolia. The statistics of the Customs Administration and the National Statistical Committee of Mongolia are used, as well as macroeconomic indicators of the countries of the world. When building the model, the main assumptions of the gravitational theory were used, that trade flows positively depend on the size of the GDP of the countries of foreign trade partners, therefore, for the regression analysis, the GDP sizes of 10 active partners of Mongolia are taken. Alternative methods of resistance to foreign trade are also considered, in particular the distance indicator.

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Экономическая система страны – комплекс взаимосвязанных структур, которые образуют упорядоченную целостность и выражает национальную экономику. Единство и целостность экономической системы – общепризнанные теории, экономические институты, закономерности и отношения, которые должны координироваться в рамках единой продуктивной экономической политики. Современная Монголия – страна с рыночной моделью экономики, то есть полная свобода всех субъектов экономических отношений. В экономической теорий имеются различные теорий, объясняющие взаимосвязь экономического роста и внешней торговли. Так А. Смит в 1776 г. в его работе «The Wealth of Nations» [5] утверждал, что страна, имеющая определенное преимущество в производстве какого-либо товара, получит наибольшую выгоду от активного участия в между-народном разделений труда. Д. Рикардо же объяснял международную торговлю межстрановыми различиями в относительных издержках производства [1]. А шведские экономисты Е. Хекшер и Б. Олин объясняли межстрановые различия относительными издержками производства [3].

Со стороны монгольских учёных профессор Нямзагд С. в своей работе «Система национальной экономики и модель ее управления» исследовал национальную экономику Монголии относительно самостоятельной комплексной системы. Нямзагд С. определил национальную экономику Монголии, как одну из составляющих частей открытой мировой экономики и определил наряду с внутренними факторами и внешние факторы, также он подчеркнул, что при этом нахождение правильного соотношения между внутренними и

внешними факторами будет иметь немаловажную роль [14]. Далее Даваажаргал Л. в своей работе «Внешняя политика и колебания валютного курса» использовал гравитационную модель. При этом он рассчитал влияния колебаний валютного курса на внешнюю политику Монголии и сделал вывод о положительной корреляции между неопределенностью валютного курса и внешней торговлей, также он выявил статистическую незначительность данных показателей [9]. Аюурсайхан Т. в работе «Влияние внешней политики на экономический рост в Монголии» сделал эмпирический анализ влияния внешней торговли на экономический рост Монголии, с помощью которого обосновал модель внешней политики Монголии [8]. Академик, Вице-президент академии наук Монголии Дорж Т. в работе «Некоторые вопросы экономической стратегий развития Монголии» делает вывод о необходимости проведения политики, нацеленной на рост экспорта, тем самым по мере роста получения валюты от экспорта увеличится импорт капитала, необходимые для увеличения экономического роста. При этом, для анализа макроэкономических показателей Монголии он использовал динамическую модель межотраслевого баланса [10].

Гравитационная модель основывается на законе физики Ньютона, по которому тела притягиваются с силой, пропорциональной их массе и обратно пропорциональной квадрату расстояния между ними. Впервые в международной торговле гравитационную модель был применен в 1962 г. Тимбергом Дж. в его работе «Формирование мировой экономики» [6]. Тимберген Дж. предложил уравнение, связывающее объем экспорта из одной страны в другую со следующими переменными: ВВП экспортирующей страны; ВВП импортирующей страны; географическое расстояние между странами. Anderson (1979), Bergstrand (1985) сделал теоретическое обоснование модели, далее модель была развита Bergstrand (1989), Cagnon (1993), Oqueldo, MacPhee (1994) и Deardorff (1995).[4] Так например, в модели гравитации Андерсон Дж. и Уинкоп В. (Anderson J., Wincoop E. Гравитация с серьезностью: Решение пограничной загадки) использовалы барьеры международной торговли [2].

По результатам анализа динамики экономического роста в условиях глобализации авторы считают, что действительно для развития современной экономики Монголии самым значимым условием является либерализация торговли. Именно, в условиях открытой либерализации внешней торговли, обеспечивались высокие темпы экономического роста, непосредственными факторами которых стали геополитика, геоэкономика и высокая информационная технология. Поэтому для Монголии авторы предпочитают гравитационную модель международной торговли, которая необходима для обеспечения стабильных, высоких темпов экономического роста. С помощью гравитационной модели экономики авторы рассчитывают устранить недостатки географического расположения Монголии: глобальные расстояния между странами и отсутствие выхода в море.

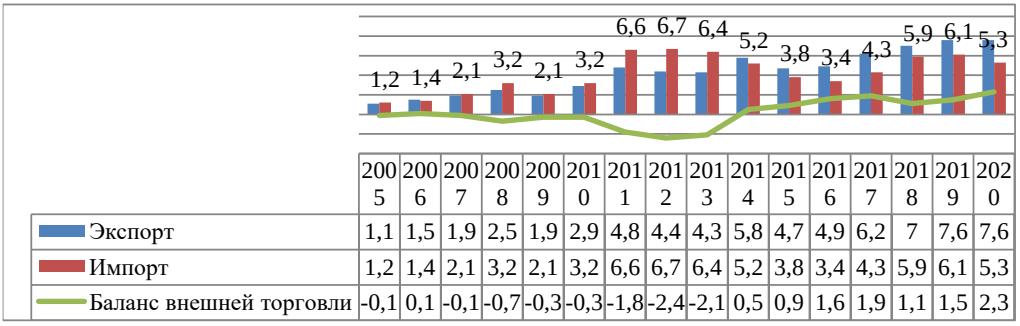
Для разработки модели, в первую очередь, исследовано современное положение внешней торговли Монголии в контексте с экономическим положением 10 стран торговых партнернов Монголии, наиболее сильно влияющих на валовый торговый оборот Монголии. Монголия находится в Азиатско-Тихоокеанском регионе (АТР), расположенном в Азии и по периметру Тихого океана и объединяющем 58 стран и территорий. Развитие и регулирование международных отношений этих стран связаны прежде всего с Ассоциацией государств Юго-Восточной Азии (АСЕАН), роль которой состоит в создании прав и норм для либерализации экономического сотрудничества, экономической интеграции, внедрения демократических форм и обеспечения безопасности.[7] В разработанную автором гравитационную модель входят 6 стран Азиатско-Тихоокеанского региона: КНР, Россия, Сингапур, Япония, США и Южная Корея.

Также в модель включена Российская Федерация − не только, как страна сосед Монголии (Российско-монгольская граница занимает третье место по своей протяженности 3485 км), но и как страна стратегического характера, так как Россия является важным торгово-транспортным и коммуникационным узлом Монголии. Взаимовыгодное экономическое сотрудничество Россий и Монголии обеспечивает безопасность стран и эффективное использование экономического потенциала стран.

Также в модель включена КНР, как самый влиятельный, внешний фактор экономического роста Монголии (в 2020 г. 72.5% экспорта приходится только на КНР). Торговые отношения между Монголии, России и КНР, независимо от размеров их территории и численности населения, имеют многовековые отношения, основанные на суверенитете и интересах данных стран. В последние годы трехсторонним торгово-экономическим отношениям данных стран придается глобальное значение. Торгово-экономическое сотрудничество Монголии, России и Китая развивается быстрыми темпами, для которого в современных условиях глобализации важное значение приобретает именно механизм Россия –

Монголия – Китай, начатый в ходе трехсторонней встречи В.В. Путина, Ц. Элбэгдорж и Си Цзинпина 11 сентября 2014 г. в Душанбе.

Рассмотрим внешнеторговые показатели Монголии за 2005-2020 гг.



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Экспорт	1,1	1,5	1,9	2,5	1,9	2,9	4,8	4,4	4,3	5,8	4,7	4,9	6,2	7	7,6	7,6
Импорт	1,2	1,4	2,1	3,2	2,1	3,2	6,6	6,7	6,4	5,2	3,8	3,4	4,3	5,9	6,1	5,3
Баланс внешней торговли	-0,1	0,1	-0,1	-0,7	-0,3	-0,3	-1,8	-2,4	-2,1	0,5	0,9	1,6	1,9	1,1	1,5	2,3

Рис. 1. Динамика внешней торговли Монголии, млрд. долларов США [13].

По данным статистики Таможенного Управления Монголии в 2020 г. Монголия торговала с 146 странами, валовый торговый оборот составил 12.9 млрд долларов США, в том числе объемы экспорта составили 7.6 млрд долларов США, а объемы импорта составили 5.3 млрд долларов США. За рассматриваемые 16 лет (2005-2020 гг.) размеры экспорта Монголии увеличились 7,1 раза, размеры импорта увеличились в 4,5 раз, а баланс внешней торговли с 2005 по 2013 гг. всегда был отрицательный, однако за последние 7 лет баланс внешней торговли Монголии имеет положительный знак, который в частности в 2020 г. составил 2,2 млрд долларов США.

Авторами построена гравитационная модель на основных предположениях гравитационной теории, что торговые потоки положительно зависят от размеров ВВП стран партнеров по внешней торговле. Таким образом, для регрессионного анализа взяты размеры ВВП 10 активных партнеров Монголии: КНР, Англия, Швейцария, Россия, Германия, Италия, Сингапур, Япония, США и Южная Корея. При этом авторы исходят из предположения, что экономический рост стран партнеров ведет к увеличению покупательной способности данных стран, как импортеров Монголии и увеличению производственной мощности данных стран как экспортеров Монголии.

Для построения гравитационной модели внешней торговли Монголии авторами рассмотрены основные подходы модели: прежде всего проведено логарифмирование оценки параметров и проведен многофакторный регрессионный анализ влияния переменной расстояния между Улан-Батором и столицами стран торговых партнеров Монголии и переменной объемов ВВП стран торговых партнеров Монголии. Таким образом, как переменные использованы следующие panel данные: объемы экспорта и импорта Монголии (2005-2020 гг.), размеры номинального ВВП стран торговых партнеров Монголии (2005-2020 гг.), расстояния от Улан-Батора до столиц 10 стран торговых партнеров Монголии.

Таблица 1. Размеры ВВП стран партнеров Монголии по внешней торговле, млрд. долларов США

Год	КНР	Англия	Швейцария	РФ	Германия	Италия	Сингапур	Япония	США	Корея
2005	2256.9	2282.9	372.5	763.7	2771.1	1780.8	125.4	4552.2	12623	844.9
2006	2712.9	2447.7	391.2	989.9	2905.4	1865.1	145.3	4362.6	13377	951.8
2007	3494.2	2812	434.1	1299.7	3328.6	2119.2	177.3	4378	14029	1049.2
2008	4520	2679	503.2	1660.8	3640.7	2307.3	189.4	4879.8	14292	931.4
2009	4990.5	2182.4	492.3	1222	3307.2	2116.6	183.3	5033	13939	834.1
2010	5878.3	2250.2	527.9	1479.8	3286.5	2055.1	222.7	5458.8	14527	1014.5
2011	6989	2481	665.9	1885	3629	2246	266.5	5855	15060	1164
2012	8250	2434	622.9	1954	3367	1980	267.9	5984	15650	1151
2013	8939	2490	646.2	2113	3593	2068	287.4	5007	16720	1198
2014	10360	2848	679	2057	3820	2129	307.1	4770	17420	1449
2015	11380	2865	677	1236	3371	1819	294	4127	17970	1393
2016	11390	2650	662.5	1268	3495	1852	296.6	4730	18560	1404
2017	12238	2622	679	1578	3677	1935	324	4872	19391	1531
2018	13842	2864	706	1665	3966	2087	373	4952	20612	1725
2019	14208	2869	731	1687	3861	2005	350	5065	21433	1878
2020	14723	2708	748	1483	3806	1886	355	4975	20937	1445

Источник: Макроэкономические показатели стран мира [12].

КНР занимает первое место в торговом обороте (так, например, экспорт в КНР в 2020 г. составил 5,5 млрд. долларов США и занимает 72,5% в валовом объеме экспорта Монголии, а импорт из КНР составил 7,4 млрд. долларов США и занимает 57,8% в валовом объеме импорта Монголии) Монголии. Далее по занимаемой доле в объеме экспорта Монголии в 2020 г. идут Швейцария, Сингапур, Великобритания, Россия, Южная Корея, Италия, Германия, США и Япония, а по занимаемой доле в объеме импорта после КНР идут Россия, Япония, США, Южная Корея, Германия, Швейцария, Великобритания и Сингапур.

Далее авторами в модели использовано расстояние между столицей Монголии, Улан-Батор, и столицами стран торговых партнеров: Пекин, Лондон, Берн, Москва, Берлин, Рим, Сингапур, Токио, Вашингтон и Сеул.

Таблица 2. Расстояние между Улан-Батором и столицами торговых партнеров Монголии [11]

	Улан-Батор, км
Улан-Батор	0
Пекин	1169.83
Лондон	6973.42
Берн	6912.4
Москва	4635.35
Берлин	6190.24
Рим	6982.64
Сингапур	5185.26
Токио	3010.45
Вашингтон	6982.64
Сеул	1993.81

Как мы видим (Таблица 2), по близости к Улан-Батору расположены: Пекин столица КНР – 1169.83 км^2, Сеул столица Южной Кореи – 1993.81 км^2, Токио столица Японии – 3010.45 км^2, Москва столица РФ – 4635.35 км^2, Сингапур столица Сингапур – 5185.26 км^2, Берлин столица Германии 6190.24 км^2, Берн столица Швейцарии – 6912.4 км^2, Лондон столица Великобритании – 6973.42 км^2, Рим столица Италии – 6982.64 км^2 и Вашингтон столица США – 6982.64 км^2.

Прежде всего, проведем оценку влияния размеров ВВП стран торговых партнеров и дистанции между Монголией и столицами стран торговых партнеров Монголии на объемы импорта Монголии. Для построения линейного регрессионного уравнения используем эконометрическую модель.

Объемы импорта Монголии (2005 – 2020 гг.) оценены линейной регрессионной моделью в зависимости от расстояний между Монголией и странами торговыми партнерами Монголии, и в зависимости от ВВП данных стран. Поскольку мера измерения 3 индикаторов дается в натуральном выражении при оценке проведено логарифмирование индикаторов.

Таблица 3. Параметры регрессионного уравнения

Годы	**b1**	**b2**	**b3**
2005	17.00	-1.93	0.35
2006	16.58	-1.88	0.38
2007	16.71	-1.96	0.49
2008	18.39	-2.04	0.40
2009	14.82	-1.65	0.42
2010	14.79	-1.66	0.48
2011	12.45	-1.47	0.67
2012	12.14	-1.40	0.64
2013	12.27	-1.45	0.67
2014	14.47	-1.65	0.56
2015	15.50	-1.71	0.46
2016	12.56	-1.47	0.56
2017	11.30	-1.57	0.44
2018	19.86	-2.11	0.40
2019	11.84	-1.37	0.61
2020	11.72	-1.35	0.59

Таким образом, линейные регрессионные уравнения по каждому рассматриваемому году имеют следующий вид:

$$lnImport_{2005} = ln17.0029 - ln1.9265 \cdot Distance + ln0.3455 \cdot GDP$$
$$lnImport_{2006} = ln16.5810 - ln1.8795 \cdot Distance + ln0.3786 \cdot GDP$$
$$lnImport_{2007} = ln16.7102 - ln1.9586 \cdot Distance + ln0.4852 \cdot GDP$$
$$lnImport_{2008} = ln18.3879 - ln2.0421 \cdot Distance + ln0.4026 \cdot GDP$$
$$lnImport_{2009} = ln14.8214 - ln1.6517 \cdot Distance + ln0.4179 \cdot GDP$$
$$lnImport_{2010} = ln14.7898 - ln1.6628 \cdot Distance + ln0.4832 \cdot GDP$$
$$lnImport_{2011} = ln12.4543 - ln1.4685 \cdot Distance + ln0.6694 \cdot GDP$$
$$lnImport_{2012} = ln12.1378 - ln1.3988 \cdot Distance + ln0.6440 \cdot GDP$$
$$lnImport_{2013} = ln12.2708 - ln1.4458 \cdot Distance + ln0.6667 \cdot GDP$$
$$lnImport_{2014} = ln14.4665 - ln1.6468 \cdot Distance + ln0.5569 \cdot GDP$$
$$lnImport_{2015} = ln15.025 - ln1.7125 \cdot Distance + ln0.4550 \cdot GDP$$
$$lnImport_{2016} = ln12.5640 - ln1.4681 \cdot Distance + ln0.5627 \cdot GDP$$
$$lnImport_{2017} = \ln 11.21824 - ln1.363186 \cdot Distance + ln0.643748 \cdot GDP$$
$$lnImport_{2018} = ln19.86036 - ln2.115134 \cdot Distance + ln0.403529 \cdot GDP$$
$$lnImport_{2019} = ln11.8474 - ln1.370142 \cdot Distance + ln0.609563 \cdot GDP$$
$$lnImport_{2020} = ln11.72285 - ln1.351613 \cdot Distance + ln0.591554 \cdot GDP$$

В эконометрическом гравитационном уравнении первое слагаемое это свободный член, второе слагаемое − это влияние расстоянии от Улан-Батора до столиц торговых партнеров, а третье − это влияние размеров ВВП стран торговых партнеров Монголии. Так например: $Import_{2005}$ = 17.00-1.93*log distance+0.35*log GDP, говорит о том, что в 2005 г. 1% изменение расстояния снижает объемы импорта на 1.93%, а 1% изменение (рост) ВВП стран торговых партнеров увеличивает размеры импорта на 0.35%.

Согласно гравитационной теории, расстояние между странами является отрицательной переменной, показывающей издержки транспортировки. В данной модели предполагается, что чем большие расстояния между Улан-Батором и столицами стран, тем выше транспортные издержки, которые являются барьерами развития внешней торговли Монголии. Однако надо учесть, что естественно здесь имеется ввиду не объективное увеличение размеров расстояний столиц, а имеется в виду, что импортные потоки ведутся из разных городов, мест стран торговых партнеров.

Объемы импорта Монголии имеют тенденцию стабильного роста. В 2011 году и в 2013 году самые высокие результаты, отсюда высокие темпы экономического роста Монголии этих периодов. В 2005 году самые низкие результаты. Размер экономики стран импортеров Монголии, в данном случае является характеристикой внутреннего рынка стран импортеров, то есть отражает размер спроса на импортируемую продукцию. Иначе говоря, ожидается, что размер импортного потока Монголии при прочих равных условиях будет больше, чем крупнее окажется ВВП импортирующей страны.

Далее авторами размеры экспорта Монголии (2005 – 2020 гг.) оценены линейной регрессионной моделью опять же в зависимости от расстояний между Улан-Батором и столицами торговых партнеров Монголии, а также в зависимости от ВВП данных стран. Поскольку мера измерения 3 индикаторов дается в натуральном выражении при оценке проведено логарифмирование индикаторов. Параметры регрессионного уравнения имеют следующий вид:

Таблица 4. Параметры регрессионного уравнения

	b1	**b2**	**b3**
2005	12.81	-0.93	-0.16
2006	8.12	-1.23	0.74
2007	8.38	-1.72	1.23
2008	5.61	-1.48	1.34
2009	8.61	-1.37	0.78
2010	15.31	-1.82	0.40
2011	19.68	-2.18	0.26
2012	18.20	-2.05	0.27
2013	14.42	-1.69	0.40
2014	11.99	-0.68	-0.21
2015	16.17	-1.52	0.10
2016	9.37	-0.81	0.19
2017	12.79	-0.03	-0.58
2018	17.83	-2.10	0.43
2019	17.23	-1.49	-0.04
2020	13.22	-0.90	-0.21

Таким образом, линейные регрессионные уравнения экспорта имеют следующий вид:

$lnExport_{2005} = ln12.81 - ln0.93 \cdot \text{Distance} - ln0.16 \cdot \text{GDP}$
$ln\ Export_{2006} = ln8.12 - ln1.23 \cdot \text{Distance} + ln0.74 \cdot \text{GDP}$
$lnExport_{2007} = ln8.38 - ln1.72 \cdot \text{Distance} + ln1.23 \cdot \text{GDP}$
$lnExport_{2008} = ln5.61 - ln1.48 \cdot \text{Distance} + ln1.34 \cdot \text{GDP}$
$lnExport_{2009} = ln8.61 - ln1.37 \cdot \text{Distance} + ln0.78 \cdot \text{GDP}$
$lnExport_{2010} = ln15.31 - ln1.82 \cdot \text{Distance} + ln0.40 \cdot \text{GDP}$
$lnExport_{2011} = ln19.68 - ln2.18 \cdot \text{Distance} + ln0.26 \cdot \text{GDP}$
$lnExport_{2012} = ln18.20 - ln2.05 \cdot \text{Distance} + ln0.27 \cdot \text{GDP}$
$lnExport_{2013} = ln14.42 - ln1.69 \cdot \text{Distance} + ln0.40 \cdot \text{GDP}$
$lnExport_{2014} = ln11.99 - ln0.68 \cdot \text{Distance} - ln0.21 \cdot \text{GDP}$
$lnExport_{2015} = ln16.17 - ln1.2 \cdot \text{Distance} + ln0.10 \cdot \text{GDP}$
$lnExport_{2016} = ln9.37 - ln0.81 \cdot \text{Distance} + ln0.19 \cdot \text{GDP}$
$lnExport_{2017} = ln13.98 - ln1.09 \cdot \text{Distance} - ln0.08 \cdot \text{GDP}$
$lnExport_{2018} = ln17.83 - ln2.10 \cdot \text{Distance} + ln0.43 \cdot \text{GDP}$
$lnExport_{2019} = ln17.23 - ln1.49 \cdot \text{Distance} - ln0.04 \cdot \text{GDP}$
$lnExport_{2020} = ln13.22 - ln0.09 \cdot \text{Distance} - ln0.21 \cdot \text{GDP}$

Так например: $lnExport_{2005} = ln12.81 - ln0.93 \cdot \text{Distance} - ln0.16 \cdot \text{GDP}$ говорит о том, что при 1% изменений расстояний снижается объемы экспорта на 0.93%, а 1% изменение ВВП стран торговых партнеров уменьшает размеры экспорта на 0.16%.

Объемы экспорта, зависимые от переменной расстояние, являются самыми высокими в 2011 году, то есть при увеличении переменной расстояние на 1% снижается размеры экспорта Монголии на 2.18%, а самые низкие результаты имеются в 2014 году, когда изменение переменной расстояние на 1 %, снижает размеры экспорта на на 0.68%. Также из динамики наблюдается нестабильная тенденция, что предполагает размеры экспорта зависит не только от переменной расстояния, но и зависит от множества других переменных.

Объемы экспорта, зависимые от ВВП торговых партнеров Монголии в 2009-2008 гг. имеют тенденцию стабильного роста, а в 2009-2020 гг. имеют тенденцию снижения. Самый высокий результат в 2008 году, а самый низкий результат в 2005, 2014, 2017, 2019, 2020 гг.

Результат расчёта модели. Эмпирическая оценка влияния размеров ВВП 10 стран торговых партнеров на объемы импорта Монголии за 2005-2020 гг. были значимыми и имеют непосредственное влияние, а с увеличением расстояния между Монголией и странами торговыми партнерами объемы импорта Монголии снижаются, то есть имеет обратно пропорциональную связь, что соответствует теоретическим предположениям модели. Таким образом, увеличение размеров ВВП стран партнеров имеет положительное влияние, а увеличение дистанций между Монголией и странами торговыми партнерами отрицательно влияют на объемы импорта Монголии.

Эмпирическая оценка влияния размеров ВВП 10 стран торговых партнеров на объемы экспорта Монголии за 2005-2020 гг. следующие:

- С увеличением расстояния между Монголией и странами торговыми партнерами объемы экспорта Монголии снижаются, то есть имеет обратно пропорциональную связь, что соответствует теоретическим предположениям модели.
- Рост объемов ВВП стран партнеров имеет положительное влияние за исключением 2005, 2014, 2017, 2019, 2020 гг.

Заключение. В современных условиях глобализации, как и в мире, в Монголии опережающими темпами, чем темпы ВВП растут объемы внешней торговли. Основными особенностями географического фактора экономического роста Монголии являются с одной стороны это не имение выхода в море и с другой стороны это внешнеторговая связь с партнерами, которая осуществляется только через 2 страны: через Россию и через Китай. Надо учесть, что сегодня экономика Монголии находится в сильной зависимости от социально-экономического положения данных стран. И в данной ситуации для проведения интенсивной экономической политики необходим анализ факторов внешней торговли. Поэтому авторами в данной работе построена гравитационная модель внешней торговли, учитывающая особенности экономики и географического расположения страны и которая более наглядно показывает влияния детерминантов взаимодействия на объемы внешних торговых потоков Монголии. Гравитационная

модель широко используется в современной экономике и авторами эмпирической проверкой модели оправданы основные предположения модели, что размер торговых потоков Монголии положительно коррелирует с размерами ВВП стран торговых партнеров и отрицательно коррелирует с размерами дистанции между Улан-Батором и столицами стран торговых партнеров.

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TRENDS IN UKRAINE'S INVESTMENT ATTRACTIVENESS IN THE CONTEXT OF THE COVID-19 PANDEMIC

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ABSTRACT

The country's investment attractiveness is one of the determining factors in attracting investment into the economy. The study emphasizes the relevance of research in this area. The article considers the dynamics of foreign direct investment in Ukraine's economy as one of the determining indicators of investment attractiveness. The place of Ukraine in the "pandemic" period in the rankings of various world institutions whose activities are related to research in the field of investment is analyzed. Low ratings of Ukraine are established, the factors which have caused such results are defined. Despite the generally negative impact of the Covid-19 pandemic on the socio-economic system of the country, it was concluded that in such conditions, certain industries, including agriculture, construction, IT industry, transport, and logistics, have received prospects for their development. The article identifies positive trends in the institutional sphere, in particular, the adoption of a number of important bills that will facilitate business in Ukraine, resume cooperation with the International Monetary Fund, adoption of economic development programs, including the National Economic Strategy until 2030. This will stimulate investment in Ukraine's economy.

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Introduction. Integration and globalization taking place in the world economic system determine the exceptional importance of investment for the development of domestic enterprises, being one of the most important factors in their sustainable economic growth and competitiveness. Effective investment is the foundation for the development of both the economy of Ukraine and its individual regions, accelerates its integration into the European socio-economic area. On the other hand, attracting investment is directly related to the investment attractiveness of the country, which reflects the possible effects and benefits for potential investors, as well as the risks of loss of funds or loss of return on investment. Therefore, the study of factors that determine the investment attractiveness of the country is an urgent task.

Literature Review. Issues aimed at studying various characteristics of Ukraine's investment activity are the subject of research by a wide range of researchers.

Amerkhanova (2019) considered factors that ensure the investment attractiveness of Kazakhstan. The article highlights the problems in attracting investment and provides a set of measures to address them. Problems of low investment attractiveness in the Republic of Mali are covered in the article Kazakova, Badlaeva, Diallo & Keith (2021). The authors give the reasons for this situation and also formed a set of recommendations that will help improve the situation. The

issues of investment activity and increasing investment attractiveness in Poland are considered by Godlewska & Pilewicz (2020), Roszko-Wójtowicz & Grzelak (2021).

This area of research is also relevant for Ukrainian scientists. The article by Shushkova, Matviykiv & Kolisnyk (2019) considers issues related to the formation of Ukraine's image and the macroeconomic factors that determine it. The factors that shape the investment climate, in particular, macroeconomic balance; level of infrastructure development; inflationary stability; openness of the economy; favorable legal framework and others. The authors conclude that at the time of the study in Ukraine there is an unfavorable investment climate, which is the result of deteriorating macroeconomic indicators, as well as suggestions for measures to improve it.

Bokhonko, Zhygalo & Slobodiuk (2020) considered the issue of determining the investment attractiveness of Ukraine in the context of the ability to attract foreign investment into the country's economy and determine its ratings in various international agencies. The authors calculated integrated assessments of the investment climate of Ukraine in the context of the SWOT-analysis and made proposals to improve the investment attractiveness level.

Zolotaryova (2020) considers the scheme of the process of investment attractiveness of the state, determines a set of determining factors influencing it, and a set of indicators to predict investment attractiveness.

Khaietska (2020) examines the principles on which Ukraine's public policy should be based in the context of attracting foreign investment. The author presents the components of investment attractiveness, considers the dynamics of attracting foreign direct investment into the economy of Ukraine. According to the results of the research, a conclusion was made to increase Ukraine's investment attractiveness level.

Statistic data and issues of foreign direct investment in the context of the study of investment attractiveness are also considered in the articles Shtepenko & Zaburaeva (2019), Turpak, Hoshovska, Korolyova (2019), Bolgarova, Panevnyk (2019), Zalizniuk, Shchelkunov (2021)

The analysis allows us to conclude that there is some inconsistency in the conclusions of scholars on Ukraine's investment climate and investment attractiveness. This is due to the high dynamics of modern economic conditions, so in some periods of time, the indicators studied by scientists have different levels and different dynamics. Thus, the problem of analyzing investment attractiveness requires further study in accordance with current trends in economic development.

Research Methodology. During research we used the generalization method – to analyze previous research and identify the main trends in investment attractiveness; formalization method – to describe investment attractiveness using individual quantifiable indicators; system analysis method – for a comprehensive study of the problem of investment attractiveness, its relationship with the socio-economic development of the country, and the indicators that determine it.

Results and Discussions. Analysis of the previous studies allows us to conclude that the volume of foreign direct investment is one of the main indicators of the country's investment attractiveness. According to the MFU (2021) shown in Table 1, the volume of foreign direct investment into Ukraine has declined sharply over the past two years.

Table 1. The volume of the direct foreign investment into Ukraine

Year	2016	2017	2018	2019	2020	2021 (2 quarters)
Index Values, $ mil.	3810	3692	4455	5860	-868	2836

Source: developed using MFU, 2021

In 2020, for the first time, there was a negative balance of foreign direct investment, which is the result of exceeding their outflow over revenues. The main reason for this situation, according to analysts, is the consequences of the Covid-19 pandemic. According to UNCTAD (2021), in 2020 the world economy was reduced by $ 0.6 trillion in investment. According to a survey conducted by the Kearney Global Business Policy Council (2021), only 57% of investors are optimistic about the three-year global economic outlook. However, on the other hand, in their opinion, the downward trend in foreign direct investment will not continue in the near future.

Ukraine's international ratings also had a negative impact on the outflow of investments from Ukraine. According to the information provided by the Ministry of Economy of Ukraine (2021) in the

analytical review "Ukraine's place in the World Bank's Doing Business ranking", in 2020 Ukraine ranked 64th among 190 countries, deteriorating performance in ensuring compliance with the contract's terms (down 6 positions) and tax environment (decrease by 11 positions). According to the Corruption Perceptions Index (CPI) (2021) in 2020, Ukraine ranked 117th among 180 countries. Although this value is better than in previous years, Ukraine still remains one of the worst post-Soviet European countries in this respect. According to the Index of Economic Freedom compiled by the Heritage Foundation (2021), Ukraine ranked 127th out of 178 countries and was classified as "mostly unfree". At the same time, according to the component of investment freedom, Ukraine scored only 35 points out of 100 possible. This indicates the weakness of the domestic judicial system and the lack of confidence in the legislation of Ukraine by foreign and domestic investors, which also restrained the inflow of capital. According to the Global Foreign Direct Investment Country Attractiveness Index, Ukraine ranked 58th in 2020, having the worst rating of post-Soviet countries, and was included in the category of countries with low attractiveness (Global Foreign Direct Investment Country Attractiveness Index, 2021).

According to the EBA (2021), in 2020 the index of investment attractiveness of Ukraine was 2.4 points out of 5 possible, which is the lowest value since 2014 (Fig.1). At the same time, since 2017 there has been a negative tendency to reduce this indicator. This assessment (below 3 points) indicates the unfavorable Ukraine's investment climate.

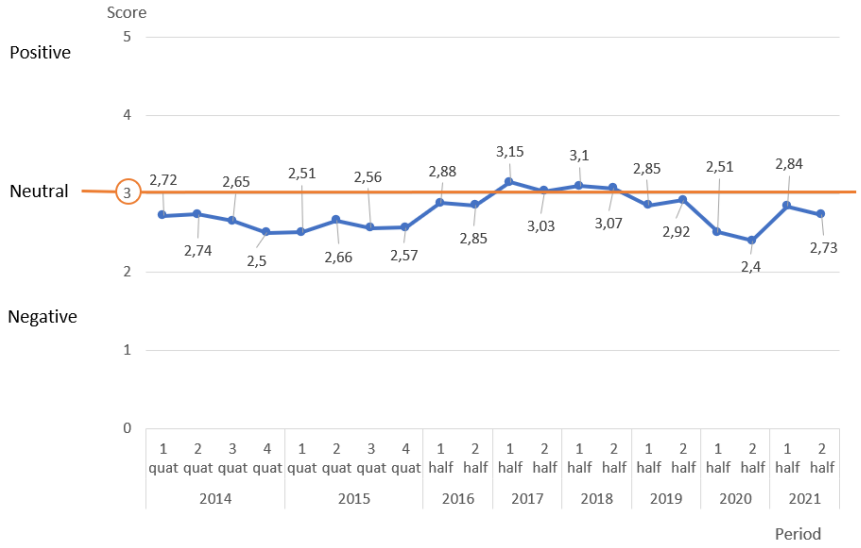

Fig.1. The investment attractiveness index dynamics
Source: developed by the authors using EBA, 2021 data

In 2021, the economic situation improved, and the volume of investment in the first two quarters of this year reached almost fifty percent of this index value for 2019. The main investment inflows were provided by EU countries, but much of the investment is reinvestment. To some extent, this was facilitated by the stabilization of the Covid-19 incidence situation and the adoption of the law "On state support of investment projects with significant investments in Ukraine" (2021). It formalized the activities of investment managers ("investment nannies"), who will ensure the interaction of investors and government institutions on issues related to the preparation and implementation of investment projects. The introduction of a capital amnesty instrument was another positive aspect, which allows to withdraw domestic financial resources from the shadows and attract them as investments. This is reflected in the value of the index of investment attractiveness: in the first half of 2021, the value of the index increased to 2.84 points, which corresponds to the level of the first half of 2019 (i.e., before the pandemic). However, in the second half of the year the figure dropped to 2.73 points. One of the reasons may be the deteriorating political situation in the country and the low vaccination tempo.

According to the "Guidelines for calculating the level of economic security of Ukraine" (2013), satisfactory for investment security is the level of investment, at which the ratio between net annual growth of foreign direct investment in gross domestic product is 6 percent, with an optimal value of 7 percent. However, since 2007, the net inflow of foreign direct investment into the country's economy has not exceeded 6 percent.

Sustainable growth of the national economy is possible provided that the added value increases, which leads to the creation or renewal of fixed assets. This, in turn, necessitates significant capital investment.

The National Economic Strategy for the period up to 2030 (2021) identifies the task of attracting foreign direct investment as one of the main ones. In particular, it is noted that the "first stage is the formation of competitive conditions for business and investment, as well as restoring confidence in public institutions. This will allow us to win the competition for capital on the world market and, as a result, attract investment to modernize sectors of the economy" (p. 3). At the same time, the strategic benchmarks include an increase in the net inflow of foreign direct investment to at least $15B per year starting in 2025.

Also important for ensuring the openness and transparency of foreign investors' business is the establishment of the Kyiv International Financial Center (KIFC), the main function of which is to guarantee investment protection for investors through legal protection under British law.

Ukraine continues the course of implementing the reform program, which, in particular, manifested itself in the adoption of the law on banking, the implementation of land reform, and the opening of the land market. Such actions by the government were crucial to unblocking cooperation with the International Monetary Fund, which is crucial for stabilizing the economy. The domestic currency remains relatively stable. These factors have a positive effect on improving the investment climate and, consequently, the attractiveness for foreign investors.

Among the negative trends that continue to negatively affect the formation of the investment climate in Ukraine, it is worth noting the prolongation of the Covid-19 pandemic. Despite the mass vaccination of the population, which began in 2021, it had a slow pace of this process. Quarantine restrictions and social distancing also had a negative impact on the investment cycle. This has forced many businesses to reduce or even cease economic activity, especially in the field of services, tourism, trade. In the autumn of this year, almost all Ukraine’s regions were in the "red" zone, which significantly limited the activities of enterprises in these areas of the economy. The aggravation of the political situation in the country is also a deterrent.

At the same time, we agree with the opinion of P. Telyuk (2020) that the consequences of Covid-19 can have a long-term positive effect on the domestic investment market. Two of the most important sectors of the domestic economy: agriculture and IT remain quite attractive to investors. The first is crucial for food security, not only in Ukraine but also worldwide. Ukraine's geographical and climatic conditions, as well as its closeness to the EU's borders, are also favorable factors for investing in this sector of the economy. The main areas for investment can be primarily infrastructure facilities of agriculture: ports, elevators, equipment. Enterprises growing and processing agricultural products also may be interesting to foreign investors.

The IT industry has also received a strong impetus for the development of an effective online business. According to the NBU (2021) data, in 2019, $544M were invested in IT business, and in 2020 - $571M, which is the highest value in recent years. At the same time, 62 percent of the total amount was attracted by four companies with Ukrainian roots - GitLab, Creatio, Restream and airSlate. The average profit of Ukrainian IT businesses working with foreign clients increased by 29 percent over the year (Forbes, 2021), the Ukrainian IT sector has favorable conditions for government regulation, more favorable geographical location compared to Asian countries, young age of employees involved, which also makes this business attractive to investors. Growing investment in the IT industry is a global trend. According to experts Gartner (2021), in 2022 the industry will spend $ 4.5T, which is 5.5 percent more than in 2021. At the same time, the growth rate of costs will decrease (from 9.5 percent to 5.5 percent). In 2023, IT companies are expected to receive about $ 30B in revenue from the sale of products and services that did not exist before the pandemic.

Another promising area for investment will be logistics companies, especially in the supply of retail goods. As a result of the pandemic, the population was limited in its ability to make retail purchases. The development of business trade will also be a positive factor for the development of this area of economic activity.

The government's decisions to reform the domestic health care system will boost investor interest in the pharmaceutical industry, especially as the U.S. attempts to develop pharmaceutical supply chains that have been heavily dependent on China in recent years.

The construction business and companies providing related services, in particular, the supply of auto parts, will be promising for investment. This is especially relevant for the regions of Western Ukraine.

The energy sector is important for the development of the national economy, in particular enterprises operating in the field of renewable energy, but the inflow of funds here is largely hampered by regulatory constraints. The global decline in prices for traditional energy sources, such as oil and gas, also has a negative impact on investment in this area.

Investments in the defense and aerospace sectors are expected to grow, given the loss of dependence on Russian enterprises.

The banking system is important for the functioning of the domestic economy. Although there are currently no major banking concentrations in Ukraine, smaller Internet banks may be of interest to foreign investors. In 2019, $ 1.1B was invested in the financial system opposite $ 211M in 2020. Changes in regulatory policy regarding legislative acts aimed at facilitating investment attraction and introduction of new financial instruments, in particular, the Law of Ukraine "On Capital Markets and Organized Commodity Markets", will also help raise funds.

Ukraine has also adopted the "Strategy of the Financial Sector of Ukraine until 2025" (2021), which prioritizes are "the creation of conditions for sustainable growth of the financial sector of Ukraine, its competitiveness in terms of integration into the global financial space, which will meet consumer needs for quality and available financial services; reducing the cost and extending the maturity of financial resources for the state and enterprises; increasing the competitiveness of Ukraine's economy as a whole" (p. 15).

Among the weaknesses in the direction of investment is the tourism industry, including the hotel business, which reflects the global trend of declining investment due to the pandemic. Also, the lack of interest from investors will be observed for commercial retailers.

Conclusions. The following conclusions can be drawn from the results of the analysis. The issue of research related to determining investment attractiveness is relevant to the current state of economic development. The current level of investment attractiveness of Ukraine for foreign investors is quite low, due to the high level of corruption in the country, low efficiency of public administration, a weak judiciary, and, consequently, low level of trust in it. These factors led to low ratings of Ukraine in international indices that reflect investment attractiveness and investment climate. These are important for investors in the context of investment risk assessment. The Covid-19 pandemic had an additional negative impact, as a result of which many domestic enterprises, especially those engaged in trade, tourism, services, ceased or significantly reduced their activities. At the same time, in the conditions of the pandemic, the agricultural sector, the market of the IT industry, and the construction industry are potentially attractive for investors, and they have received additional opportunities to expand their business. The development of these industries can lead to the increased investment attractiveness of Ukraine and increase the volume of foreign direct investment in the domestic economy. Trends in 2021 confirm this conclusion. Prospects for further research are the development of tools for assessing the level of investment attractiveness.

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GENERALIZATION OF THE INFLUENCE OF FOREIGN EXPERIENCE OF THE DIGITALIZATION PROCESS ON THE ECONOMIC SECURITY OF ENTERPRISES

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ABSTRACT

The article examines the foreign experience of countries, which allows us to conclude that for the world's leading economy, digital transformation is important.
It is determined that the digitalization of the foreign economy is facilitated by special programs and concepts aimed at stimulating the development of enterprises.
It is established that economic security can act as the ability of the institutional and organizational system to protect the interests of economic entities on the basis of international and national law.

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Introduction. Security of economic processes is characterized by many political, legal and economic mechanisms and instruments that can protect economic interests.

In a broad sense, we can consider economic security as the ability of the institutional and organizational system to protect the interests of economic entities on the basis of international and national law while respecting and adhering to national traditions and values of management [2].

Effective risk management in the realities of digital transformation plays an important role in shaping the socio-economic benefits of the digital economy. The interaction of authorities, business structures and national organizations in addressing digital security is the basis for strengthening the foundations of joint activities.

Research purpose. The main purpose of the research there is generalization of the impact of foreign experience of the digitalization process on the economic security of enterprises.

Research materials and methods. In this article uses general scientific methods of analysis and synthesis of action induction and deduction, the transition from abstract to concrete, as well as special methods of analysis: grouping, comparison, systematic and others.

Results. Solving the problem of ensuring economic security in the current realities of digitalization of socio-economic processes is an important and urgent task for the national economy. Unsteady external and internal conditions, the digital transformation of almost the entire sphere of life is constantly creating new threats and challenges, which requires rapid response and improvement of ways to minimize the risks [1].

The experience gained allows us to state that economic and functional security is a key characteristic for the stable search and achievement of the necessary indicators of development of both individual economic entities and society as a whole.

When considering problems through the prism of macro-level indicators, the economic security of the country consists, inter alia, of the stable development of the business environment [3]. In other words, public economic security is inextricably linked to the current conditions of management and coordination of business activities [4]. In addition, the economic security of society is formed under the influence of public financial control [5] and shadow processes in the economy [6]. The organizational structure of public institutions, in turn, creates conditions for economic growth and reduction of threats to economic entities [7].

One of the key tasks of ensuring economic security, which has become relevant in the non-stationary processes of the modern world, is the task of forecasting threats and challenges. The key global challenge is the digital transformation in virtually all walks of life [13]. The digitalization of the techno sphere plays an important role in the scientific, social and economic world order, as evidenced by the United States, China, Japan the world's leading digital powers, as a significant share of income of their national economies is largely provided by digital technologies.

Competent information management, as a basic resource for digital transformation of economic processes, is an inappropriate attribute in almost all economic activities, and a monopoly on certain data, as a rule, is a significant competitive advantage [15]. Doing business in the global digital space on the one hand gives certain opportunities and levers in management, diversifies the activities of the organization, and on the other unusually leads to new challenges and threats to further development. Deep transformations caused by general digitalization, the discovery of new potential problems in ensuring the economic security of subjects of different hierarchies.

Despite the close attention to the problem of digitalization from a large number of stakeholders, the issue of the impact of digital technologies on economic security is insufficiently studied. Enterprises have a good response to changes in the external environment, so in the uncertainty caused by the digital transformation of society, they can act as a basic tool in its sustainable development. In this regard, it is important to study the experience of reactions to the current situation of more technologically advanced countries [14].

This will help to avoid similar mistakes when creating programs for the transformation of technical enterprises [8].

Traditionally, the leader in the field of digitalization is the United States, where various programs of development and support of digital transformations in the economy are constantly introduced at all levels of government with the scientific community and private businesses. Among such programs are: the federal initiative in 2009 in the field of cloud technologies; Obama's 2011 proposal to create a centralized network of Advanced Manufacturing Partnerships, a union of line ministries and major US digital corporations.

Another example is the Industrial Internet Consortium (IIC), established in 2014. Its key task is to «the development of industrial implementation and widespread use of machines, devices, as well as intelligent analytics interconnected, ie the industrial Internet».

In addition, the United States has specialized programs aimed at supporting digital technologies and analyzing their impact on the national economy. The first such program was developed in 2015, the Digital Economy Agenda, which aimed to help businesses and consumers realize the potential of the digital industry to accelerate economic growth and expand the range of opportunities. The program focuses on promoting a free and open Internet around the world, trust in the global network, providing access for businesses and citizens to digital technologies, and supporting breakthrough technologies and innovations [9].

There are more than 30 specialized national, regional and national strategies and programs in the EU aimed at increasing the digital transformation of industry and the economy. In order to create a single vector of digitization, in 2017 the Commission of the European Union introduced a unified information exchange platform for all countries, the EU Digital Single Market. This platform promotes national projects in the field of digitalization, provides financial support and coordinates the joint implementation of investment projects in the digital economy, serves as a platform for training competent staff and sharing experiences.

The platform encapsulates resources for the creation of breakthrough digital technologies and business organizations, acts as a kind of integrator of the digital technology market in the EU. In addition, the platform develops standards for the implementation of large-scale projects that can be implemented using computing infrastructure provided.

Thus, the key principles of EU policy in the field of digital transformation are the development of unified standards and rules in the field of information and communication technologies, comprehensive support research and development in the field of digitalization, focus on the interests of the consumer market.

Consider the three largest types of economies in Asia, which dictate current trends in the digital transformation of world society and business. Today, China's economy is one of the leaders in the field of digitalization and one of the three leaders in this field. Productive development in the digital industry can be explained by high competition and a large domestic market for digital technologies. In addition, China's digital sector receives comprehensive government support [10]. Following current global trends, China is actively adopting a variety of programs and concepts to support digital processes in the country's economy. For example, in 2018, the country approved the program «Made in China 2025», aimed at bringing the state to the leaders in the digital technology market by 2025 [11].

Another leader in the field of digitalization is South Korea. The state development strategy until 2022 defines the task of forming a new type of economy based on global digital platforms and digital technologies. South Korea invests in research and development of digital technologies and supports private business mainly through government subsidies. The funding vector is aimed at the work of artificial intelligence technologies and «Smart» technologies, 5G networks, etc.

To achieve these goals, the South Korean government supports the implementation of a program in the field of artificial intelligence and blockchain technologies, which encourages business to implement digital platforms.

In Japan, the key document regulating the long-term development of the state in the field of digital technology is the Strategy «Super Smart Society 5.0», approved by the Government of Japan in 2016. The strategy was supported by the Federation of Big Business «Keidanren», based on the concept «Industry 4.0» and is based on the use of digital technologies of artificial intelligence, robotics, Internet, etc. [12].

The economic effect of the transition to digital format should provide an increase in value added. To this end, it is purposeful to form the relevant modern demands of society, the conditions that implement artificial intelligence systems and Internet technology.

Therefore, it is a targeted development of organizational and economic aspects and mechanisms for ensuring the economic security of entrepreneurship in the context of digital transformation. In the period of rapid growth of digitalization of socio-economic systems there are significant changes in the organization of economic security of enterprises. To date, such changes do not fully require the study and serious theoretical and methodological understanding [16].

Conclusions. Analysis of foreign experience allows us to conclude that digital transformation is of great importance for the advanced economy of the world. There are basically two different models of state participation in the digital transformation of business: market (self-regulation) and administrative. In the first model, the role of the state is to create the right conditions for digitalization and economic processes (for example, the United States and EU countries). The second model is based on the gradual development of the infrastructure of the digital economy under the leadership of state institutions of power with the subsequent introduction of relevant economic actors in the digital sector (for example, China).

In many respects, the digitalization of foreign economies is facilitated by special programs and concepts aimed at stimulating the development of enterprises. The strategies of most countries in the development of the digital economy are a symbiosis of these two models of regulation.

Along with the positive aspects of digitalization, the possible negative consequences should also be noted. First, the information openness of organizations is increasing, which dangerously increases its vulnerability to harmful influences and cyberattacks and is an additional source of threats to economic security. Second, in many sectors of the domestic economy, digitalization dictates significant changes in the business models of organizations, which requires significant costs and entails certain financial and business risks.

Thus, digitalization is a qualitatively new paradigm for the development of socio-economic processes and contributes to the formation of innovative criteria for analyzing the economic security of enterprises. The digital economy forms a new contribution, determines the transition of traditional business processes in a new, digital industry.

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THE EFFECTIVENESS OF ENVIRONMENTAL MANAGEMENT AND ITS IMPACT ON THE ECONOMIC SECURITY OF ENTERPRISES IN THE FOREST INDUSTRY

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ABSTRACT

This article determines that forests are an important strategic natural resource of Ukraine.
It is generalized that forestry in almost all forest lands of Ukraine is conducted by specialized state and municipal forest enterprises subordinated to the state.
In general, it is positive to understand that the environmental management system at the enterprise of the timber industry through the development and implementation of procedures and approaches to minimize the negative impact on the environment, will improve the overall performance of the enterprise.
It is determined that the economic activity of forestry in Ukraine consists of the activities of individual forestry enterprises and is aimed at forestry in accordance with existing legal requirements, in the process of which enterprises receive and sell forest products.

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Introduction. Given the exceptional importance of the role of forests and their resources in meeting human needs, scientists and practitioners pay considerable attention to research on the use, protection and reproduction of forest resources, the state of the forest industry and forestry enterprises and overall issues of sustainable forest management in Ukraine.

Over the past 50 years, the country's forest cover has increased almost 1.5 times, and wood stocks - 2.5 times. The stock of wood in forests is estimated at 2.1 billion cubic meters. m. The total average change in stock reaches 35 million cubic meters. m. The average annual change in stock per 1 ha in the forests of the State Forest Agency is 3.9 cubic meters. m and ranges from 5.0 cubic meters. m in the Carpathians up to 2.5 cubic meters. m in the steppe zone. There is a gradual increase in reserves, which confirms the significant economic and environmental potential of Ukraine's forests.

Research purpose. The main goal is to analyze the effectiveness of environmental management and its impact on the economic security of enterprises in the forest industry.

Research materials and methods. In this article uses general scientific methods of analysis and synthesis of action induction and deduction, the transition from abstract to concrete, as well as special methods of analysis: grouping, comparison, systematic and others.

Results. The total area of forest areas in Ukraine is 10.4 million hectares. Forests by purpose and location perform mainly ecological (water protection, protection, sanitation, health and other) functions, have limited operational value. Ukraine's forest cover is 15.9%. The forests are very uneven. They are concentrated mainly in Polissya and in the Ukrainian Carpathians. Forest cover in different natural zones has significant differences and does not reach the optimal level at which land resources are used most efficiently, an ecologically stable environment is formed and the whole complex of useful properties of the forest is most fully revealed [8].

Medieval stands have the largest share - 45%, ripe and overripe are almost 17%. The average age of stands is about 60 years, there is a gradual aging of forests, which affects their sanitary condition. Ukraine's forests are formed by more than 30 species of wood species, among which pine (Pinus silvestris), oak (Quercus robur), beech (Fagus silvatica), spruce (Picea abies), birch (Betula pendula), alder (Alnus glutinosa), ash (Alnus glutinosa) dominate. Fraxinus excelsior), hornbeam (Carpinus betulus), fir (Abies alba). Coniferous plantations make up 43% of the total area, in particular pine - 35%. Hardwood plantations - 43%, oak and beech - 37%.

Priorities in the work of the forest industry of Ukraine are:

- increase the level of environmental security of the country by increasing the forest cover of its territory through afforestation of degraded, unproductive and man-made contaminated lands;
- forest management on the basis of inexhaustible forest use and ecosystem approach;
- ensuring the protection of forests from fires, reducing the number of fires and minimizing their consequences. Ensuring the protection of forests from illegal logging and other violations of forest legislation (in particular, through the introduction of a single state system of electronic timber accounting);
- forest accounting, ensuring the transparency of the timber market;
- protection of forests from pests and diseases;
- protection and reproduction of hunting animals;
- development of forest infrastructure, construction of forest roads;
- raising the level of ecological culture of forest behavior;

Ukraine is forming a set of institutional, organizational and managerial principles for the balanced development of forestry, which are simultaneously aimed at using natural resources, improving the quality of human life and preserving the environment [6]. Forest resources are the basis of the economic system of forestry, and the volume of their use is set such that ensures the continuity of forest ecological and economic functions (environmental, protective, sanitary, health, resource). Due to the use of forest resources, forestry receives funds for reforestation, forestry, forest protection and other activities (in recent years the state has stopped funding the costs of forestry). Wood is harvested in the order of felling of the main use, the implementation of measures for the formation and rehabilitation of forests and other fellings [7].

The limit of timber harvesting in the order of felling of the main use is the estimated felling, which is approved taking into account the principles of continuity and inexhaustibility of forest resources [10].

The current size of the estimated felling is 9.6 million cubic meters. m, and its actual use up to 90%. That is, the actual volumes of forest use are less than the estimated felling, which provides environmentally balanced forest use [9].

Ukraine is affected by erosion of about 15 million hectares of land, and the annual growth of eroded land exceeds 80 thousand hectares. In order to reduce the impact of erosion processes on agricultural land and increase soil fertility, expanded forest regeneration is carried out by attracting new land. To achieve optimal forest cover in Ukraine (20%) it is necessary to create more than 2 million hectares of new forests [5].

This is potentially possible due to the lands withdrawn from agricultural circulation, which according to the UAAS in Ukraine there are about 8 million hectares. The issue of increasing the state's forest cover is included in the priority areas of forestry development. In Ukraine, every second hectare of forest is created artificially. Over half a century, more than 1.4 million hectares of anti-erosion plantations have been created on lands unsuitable for agricultural use, of which 150,000 hectares are along the banks of small rivers and reservoirs. arable land.

Afforestation of logs and increase of forest area is carried out by reforestation and afforestation. For the last five years, the average annual forest reproduction has been up to 50,000 hectares. An appropriate production base has been created to implement the tasks of reforestation. At the forestry

enterprises subordinated to the State Forestry Agency, there are 3.4 thousand hectares of forest nurseries, 11 hectares of greenhouses, in which 246 million standard planting material and 3.6 million seedlings for landscaping were grown in 2020. To obtain high-quality forest seeds, a permanent forest seed base with an area of 40.9 thousand hectares was created, including: 2.1 thousand hectares of plus plantations; 1.2 thousand hectares of permanent forest seed plantations; 15.6 thousand hectares of permanent forest seed plots; 22.0 thousand hectares of genetic reserves; 4.6 thousand pieces plus tree [4].

Given the exceptional importance of the role of forests and their resources in meeting human needs, scientists and practitioners pay considerable attention to research on the use, protection and reproduction of forest resources, the state of the forest industry and forestry enterprises and overall issues of sustainable forest management in Ukraine.

The economic activity of forestry in Ukraine consists of the activities of individual forestry enterprises and is aimed at forestry in accordance with existing legal requirements, in the process of which enterprises receive and sell forest products [2].

Forest products and raw materials produced by forestry enterprises are used in the production activities of woodworking, pulp and paper and forest chemical complexes. In addition, they are suppliers of resources for agri-food and energy complexes. In turn, the effectiveness of their activities is greatly influenced by the characteristics and condition of forests in Ukraine. Compared to European countries, forests and forestry have the following features:

- relatively low average level of forest cover in the country (15.7%), which is much less than the European average (35.4%);
- growth of forests in different natural areas (Polissya, Forest-Steppe, Steppe, Ukrainian Carpathians and mountainous Crimea), which have significant differences in forest vegetation conditions, forest management methods, use of forest resources and useful properties of forests;
- mainly ecological value of forests and their high share (up to 50%) with limited use;
- high percentage of protected forests (13.7%), which has a steady upward trend;
- historically formed situation with the assignment of forests to numerous permanent forest users (for forestry forests are provided for permanent use to enterprises, institutions and organizations of more than fifty ministries and departments);
- a significant area of forests is growing in the area of radioactive contamination;
- half of Ukraine's forests are artificially created and need intensive care [3].

In addition, in recent decades the stock of wood at the age of main use has decreased compared to the stock of target reference plantations, there is a significant number of plantations with unacceptably low share of main species in mixed plantations and unsatisfactory commodity structure of plantations [2]. The loss of forest stands, the area of which has increased compared to 2019, also causes significant forest damage. The main causes of death of forest stands are:

- forest fires (30.8%, or 8.6 thousand hectares). In 2020, 3,813 forest fires were recorded, which is almost twice as much as in 2019. The area of forest covered by fires increased by 7% compared to the previous year. As a result of forest fires, 980.1 thousand m of harvested forest products and 5354.9 thousand m of forest on stumps with a total value of UAH 6.3 million were burned and damaged. (31.4% of the total amount of losses due to forest fires). In addition, 16 fires damaged 6.6 thousand hectares of non-forest lands included in the country's forest fund;
- the impact of adverse weather conditions (30.1%, or 8.4 thousand hectares);
- forest diseases (26.1%, or 7.3 thousand hectares).
- illegal felling of trees and shrubs. During 2020, 7955 cases of illegal felling of trees and shrubs were recorded (9.2% more than in 2019), as a result of which 32.3 thousand m2 of stands were destroyed and damaged (90.7% more), damage was caused forestry amounted to UAH 114.2 million, which is 2.4 times more than in 2019. In 2020, forests were reproduced on an area of 60.4 thousand hectares (4.1% more than in 2019), including afforestation carried out on an area of 2.5 thousand hectares [1].

Conclusions. These features of Ukraine's forestry and other destabilizing factors lead to the fact that Ukraine's forest resources are very limited and provide their own needs by only 20-25%.

This undoubtedly has a negative impact on the activities of forestry enterprises and reduces their level of economic security.

In general, it is positive to understand that the environmental management system and its impact on economic security in the timber industry by developing and implementing procedures and approaches to minimize the negative impact on the environment, will improve the overall performance of enterprises.

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MANAGEMENT OF THE ECONOMIC SECURITY SYSTEM OF THE ENTERPRISES OF THE FOREST INDUSTRY COMPLEX OF UKRAINE

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ABSTRACT

This article determines that the threats to the economic security of forestry are: insufficient level of forest cover in Ukraine; lack of legally established forest policy; low productivity of forests; corruption in the forest industry. Dependence on import of resources is characterized; high level of equipment wear, low level of introduction of innovative, resource - and energy - saving technologies, insufficient investments.
It is generalized that the process of ensuring the economic security of Ukraine's forest industry includes the following stages: formation of principles of ensuring economic security of forestry; assessment of the external and internal environment of FIC; determining the list and priority of threats to the economic security of forestry; assessment of the level of economic security of forestry; modeling of scenarios for ensuring the economic security of forestry; development and implementation of management decisions and recommendations to ensure the economic security of forestry; monitoring and control of the effectiveness of financial and economic security of forestry.

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Introduction. The forest industry complex of Ukraine is a set of enterprises involved in the cultivation and processing (until the final product) of forest raw materials. The timber industry complex includes the following sub complexes: forestry, woodworking, pulp and paper, forest chemical [2].

Research purpose. The purpose of the article is to develop an organizational approach to ensuring the economic security of the forest industry of Ukraine.

Research materials and methods. In this article uses general scientific methods of analysis and synthesis of action induction and deduction, the transition from abstract to concrete, as well as special methods of analysis: grouping, comparison, systematic and others.

Results. In Ukraine, the timber industry complex operates in conditions of forest deficit. The total land area of the forest fund of Ukraine is 10.8 million hectares, of which 9.5 million hectares are covered with forest vegetation, which is 15.7% of the country's territory. Ukraine's forest cover is 15.9%. However, despite the relatively small forest cover of the territory, Ukraine ranks 9th in Europe in terms of forest area and 6th in terms of timber reserves [4] (Table 1.).

Table 1. TOP-10 European countries in the area of forested lands. Source: [4].

№	Country	Total area countries, thousand hectares	Area covered with forest	Forest cover, %
1.	*Sweden*	*45 218*	*30 625*	*67.7*
2.	*Spain*	*50 596*	*27 748*	*54.8*
3.	*Finland*	*33 814*	*23 116*	*68.4*
4.	*Turkey*	*77,945*	*21,702*	*27.8*
5.	*France*	*54,919*	*17,572*	*32.0*
6.	*Norway*	*32,376*	*12,384*	*38.3*
7.	*Germany*	*35,702*	*11,076*	*31.0*
8.	*Italy*	*30 132*	*10 916*	*36.2*
9.	*Ukraine*	*60 355*	*9573.9*	*15.9*
10.	*Poland*	*31 268*	*9319*	*29.8*

According to Art. 1 of the Forest Code of Ukraine, Ukraine's forests are its national wealth and by purpose and location perform mainly water protection, protection, sanitation, health, recreational, aesthetic, educational, other functions and are a source to meet society's needs in forest resources [1].

The total sales of round wood to the domestic market in 2016 amounted to 11,673.1 thousand cubic meters. m for a total of UAH 8.1 billion. 2552.7 thousand cubic meters were sold on the foreign market. m of round wood for a total of 2.7 billion UAH, including firewood 1204.3 thousand cubic meters. m and pine logs 1348.4 thousand cubic meters. meters [4]. In Ukraine, fuel wood and commercial roundwood are the leaders in terms of production, their share in exports of forest products was 42 and 20.2% of production, respectively, which indicates the raw material orientation of the forest industry.

The volume of production is determined primarily by the possibilities of its implementation, but it was constrained by factors such as high prices and low quality products. High prices for products were formed as a result of significant costs for their production (high cost of raw materials and other material resources). In addition, the increase in prices was influenced by the use of outdated technologies and the operation of worn-out equipment [5].

The same reasons contributed to the deterioration of product quality. All this had a very negative impact on the competitiveness of a large number of industry products not only on the world market, but also on the possibilities of its implementation within Ukraine. The increase in material costs has led primarily to rising resource prices, a sharp decline in the use of cheap raw materials - wood waste and waste paper, overuse of raw materials, fuel and energy due to the operation of worn-out equipment and outdated technology [3].

Analyzing the state of the timber industry, it is necessary to pay attention to its production potential. Thus, according to statistics, the state of fixed assets does not meet modern production requirements. The degree of wear is 43.6%, including machinery and equipment - 56.6%. The highest level of depreciation of the active part of fixed assets is reached in the forest chemical industry - 81.1%, the production of pulp and wood pulp, paper and cardboard - 62.7% [3].

Despite insufficient capacity for the production of the main types of forest products, the latter are used unsatisfactorily (in the production of pulp - 46.9%, paper - 25.8%, cardboard - 38.4%). It should be noted that the demand for these products is 2-6 times higher, so demand is met by imports, which costs about $ 400 million annually USA [3].

The subordination of forests also affects the aggregate potential of the forest industry. Thus, the State Forest Agency manages about 74% of the country's forests. The remaining 26% belong to other forest users, who cut down up to 1.5 million cubic meters of forest per year. Of this amount, only 10% goes through electronic accounting, while in the structure of the agency this figure reaches 90%. With a total annual felling of 14-15 million cubic meters, the volume of «black» forest, according to experts, reaches 3 million cubic meters [7].

Insufficient level of forest cover in Ukraine, low forest productivity, corruption in the forest industry cause difficulties in providing the timber industry with its own raw materials and increase its dependence on imports. Ukraine does not have a legally established forest policy that would include economic, environmental and social priorities, tools and mechanisms of state regulation.

Insufficient level of technical support, high level of equipment wear, low level of introduction of innovative, resource- and energy-saving technologies, insufficient amounts of investments - all these are threats to the financial and economic security of the forest industry of Ukraine.

Economic security is a multifaceted, multifaceted, systemic phenomenon. As a system, it consists of a large number of elements, has a hierarchy of levels of the organization, able to generate

new levels in the development process, while the new level inversely affects the previous levels, rebuilds them, resulting in a new integrity [9]. The system of economic security involves the organization of the state and society to make and implement decisions on national security, taking into account the conceptual, organizational and resource aspects of the formation and effective functioning of the system of economic security [6].

Ensuring economic security has horizontal and vertical dimensions, which consist of interconnected and interdependent levels. Thus, the vertical dimension includes: ensuring financial, foreign economic, investment, scientific and technical, energy, industrial, demographic, social, food security. The horizontal dimension of economic security should include the levels of individuals, enterprises, industries, industrial complex, region, state. There is no doubt that the economic component is key in the security system at all levels.

The study of the problem of forming the methodological foundations of economic security showed the lack of methodological support for the organization of economic security of industrial complexes of the country. It can be concluded that ensuring the financial and economic security of the industrial complex requires the introduction of an organizational approach, which is a sequence of stages of planning, detailed analysis and definition of goals, forecasting, programming and development of management decisions to protect economic interests from external and internal threats.

The main tasks of economic security management are:

- detection and forecasting of internal and external threats to the economic security of enterprises;
- forecasting and prevention of crisis phenomena;
- establishing a system of priority interests that need to be protected in the development of economic entities;
- providing an effective mechanism for countering threats to the economic security of enterprises, development of measures to eliminate them and methods for assessing the effectiveness of these measures [8].

Conclusions. The article presents recommendations for improving the organization of the process of ensuring the economic security of the FIC of Ukraine, which includes the following stages:

- formation of the principles of ensuring the economic security of the FIC;
- assessment of the external and internal environment of FIC;
- determining the list and priority of threats to the economic security of forestry;
- assessment of the level of economic security of forestry;
- modeling of scenarios for ensuring the economic security of forestry;
- development and implementation of management decisions and recommendations for financial and economic security of forestry;
- monitoring and control of the effectiveness of ensuring the economic security of forestry.

As a result of careful implementation of these actions in full, it will be possible to achieve the appropriate level of economic security of the forest industry of Ukraine.

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