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INTRODUCTION

The online journal is published within the Ukraine Digital project to create conditions for the development of the intellectual potential of talented young people in Ukraine, support the scientific and creative work of students and teachers during the war, and help them master the educational and scientific materials used in the educational process of Hochschule Mittweida.

Only students of Oles Honchar Dnipro National University and Odesa National Economic University who have been selected as scholarship holders for the project can publish their research papers in the journal. They are supervised by a professor from their respective university who participates in the Ukraine Digital project too.

The topics of the research papers are related to one of the subjects that have been adapted from the teaching materials provided by Hochschule Mittweida to the partner universities: International management; Diversification and internationalization; Finance; Economics and ethics; Macroeconomics; Microeconomics; Cooperative management; Techniques of scientific work; etc.

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A STUDY OF THE EU METALLURGICAL INDUSTRY IN A MACROECONOMIC CONTEXT

Abstract. The article examines the current trends in the development of the EU metallurgical industry. The purpose of the article is to study macroeconomic indicators and establish prospects for the development of the metallurgical industry of the EU countries. To achieve the goal, the methods of analysis and synthesis, comparison, graphic method were used. Sources of demand formation for metal products in EU countries are considered. An assessment of the internal market of metal products in the EU was performed. The analysis of foreign trade transactions in metal products of the EU countries was carried out. Forecasts are substantiated and prospective directions of development of the EU metallurgical industry are determined. The practical significance of the research lies in the possibility of their use for further analysis of the current state of the EU metallurgical industry in order to increase the volume of trade in metal products on the European and world markets.

Key words: metallurgical industry, metal products, steel, decarbonization, demand, employment.

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ДОСЛІДЖЕННЯ МЕТАЛУРГІЙНОЇ ПРОМИСЛОВОСТІ ЄС У МАКРОЕКОНОМІЧНОМУ КОНТЕКСТІ

Анотація. У статті розглянуто сучасні тенденції розвитку металургійної промисловості ЄС. Метою статті є дослідження макроекономічних показників та встановлення перспектив розвитку металургійної промисловості країн ЄС. Для досягнення поставленої мети використано методи аналізу та синтезу, порівняння, графічний метод. Розглянуто джерела формування попиту на металопродукцію у країнах ЄС. Зроблено оцінку внутрішнього ринку металопродукції у ЄС. Проведено аналіз зовнішньоторговельних операцій металопродукцією країн ЄС. Обґрунтовано прогнози та визначено перспективні напрямки розвитку металургійної промисловості ЄС. Практична значимість дослідження полягає у можливості їх використання для подальшого аналізу сучасного стану металургійної промисловості ЄС з метою збільшення обсягів торгівлі металопродукцією на європейському та світовому ринках.

Ключові слова: металургійна промисловість, металопродукція, сталь, декарбонізація, попит, зайнятість.

Problem statement. With the start of the coronavirus pandemic, a decline in the EU metallurgical sector was being observed. And although there was a slight recovery of some Hochschule Mittweida

macroeconomic indicators in 2021, the results of 2022 showed negative trends in the sector again. Given that the metallurgical industry is one of the powerful sectors of the EU and makes a significant contribution to its economy, this topic requires in-depth research.

Relevance of the chosen topic. Steel is closely integrated with the European manufacturing and building industries, which are the basis of economic and social development in the EU. The European metal products market is quite massive. EU countries produce a sufficient amount of metal products to cover domestic demand, and EU countries are among the leading suppliers of crude steel to the world market. However, in recent years, negative trends have been observed in this sector, including in relation to indicators of the EU foreign trade in metal products. Therefore, the study of the current state of the EU metallurgical industry and the establishment of prospects for its development, in particular, in the context of decarbonization, is an urgent issue today.

Analysis of recent research and publications. Many outstanding foreign and domestic scientists, as well as the European Commission, the European Steel Association, etc., were engaged in the study of this topic. However, a number of important issues remain poorly researched, in particular, regarding modern factors of influence on macroeconomic indicators of the functioning of the EU metallurgical industry and prospective directions of its development, including in the context of decarbonization.

Purpose of the article. The purpose of the article is to study macroeconomic indicators and establish prospects for the development of the metallurgical industry of the EU countries.

Achieving the set goal made it necessary to solve the following tasks:

- assessment of the internal market of metal products in the EU;
- analysis of foreign trade transactions in metal products of EU countries;
- substantiation of forecasts and determination of prospective directions of development of the EU metallurgical industry.

Presentation of the main research material and results obtained. European metallurgy is a world leader in innovation and environmental sustainability. About 306,000 highly qualified specialists work in this industry in the EU, and thanks to indirect and induced effects, jobs are supported for millions of Europeans, and the turnover of companies is about 130 billion euros. The sector produces an average of 152 million tons of steel per year at more than 500 steel plants in 22 EU member states. Steel is closely integrated with the European manufacturing and building industries, which are the basis of development, growth and employment in the EU (EUROFER, 2023).

Steel is the most versatile industrial material in the world and is 100% recyclable, making it a fundamental part of the circular economy. Also, as a basic engineering material, steel is an important factor in the development and implementation of innovative technologies that reduce CO₂ emissions, improve resource efficiency and contribute to the sustainable development of the EU (EUROFER, 2023).

Metals have always occupied a fundamental place in human activity. They are used to produce parts and mechanisms for various industries. It should be noted that a certain type and grade of steel has its own area of application; it is irreplaceable and necessary for the normal functioning of various industries and the national economy, and even medicine.

The industries that are the largest consumers of metal products are presented in Figure 1.

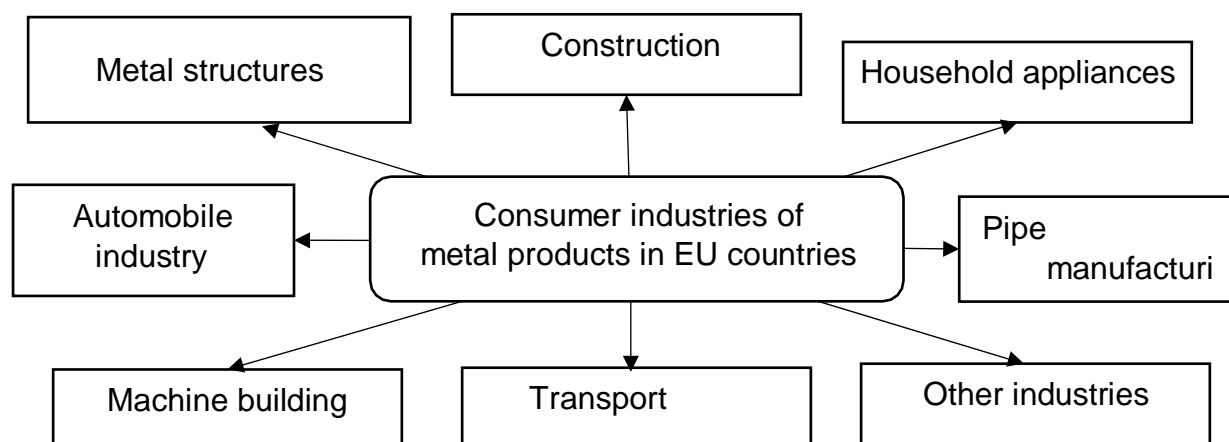


Fig. 1. Sources of demand formation for metal products in EU countries
Source: EUROFER, 2023

According to Figure 1, the largest consumers of metal products in the EU are the following industries: construction (accounting for 37% of the total demand for finished steel), automobile industry (17%), machine building (15%), metal structures (13%), pipe manufacturing (12%), household appliances (2%), transport (2%) and others (2%) (EUROFER, 2023).

The EU metallurgical industry provides more than 2.5 million jobs, while direct employment is 11.9% (306 thousand people), indirect - 60.1% (1,550 thousand people), induced - 28% (722 thousand people). Thus, the EU steel industry contributes to more indirect employment than direct manufacturing employment and provides 1.2% of all jobs in the EU (EUROFER, 2023).

It is worth noting that the number of workers directly employed in metallurgy indicates the development of the industry and its size. However, during 2013-2017, employment in this sector decreased by 6% (Statista, 2023; EUROFER, 2023). The reason for this was global overproduction, which was supplemented by a decrease in demand for steel in 2014 against the background of the worsening economic situation in developing countries (European Commission, 2023). In addition, spare production capacity in non-EU countries has increased dramatically. Only excess capacity in China was about 350 million tons, which was almost twice of the annual production in the EU. Due to the slowdown in the industry and the forced reduction of production capacities, there was a reduction in the number of employees (European Commission, 2023). Despite the positive dynamics of employment indicators in 2018, during 2019-2022, the number of employees in the EU metallurgical industry continued to decrease by 5.4% (EUROFER, 2023).

Direct employment in the metallurgical industry in the EU countries in 2022 is presented in Table 1.

Table 1.

Direct employment in the metallurgical industry and crude steel production in EU countries in 2022.

№	Country	Direct employment		Crude steel production	
		thousand people.	Share in total EU employment, %	million tons	Share in total EU production, %
1	Germany	80,200	26,2	36,849	27,0
2	Italy	30,714	10,1	21,599	15,8
3	France	25,317	8,3	12,234	9,0
4	Poland	23,950	7,8	7,407	5,4
5	Romania	21,474	6,7	2,625	1,9
6	Spain	17,150	5,6	11,464	8,4
7	Czech Republic	17,000	5,6	4,262	3,1
8	Austria	15,300	5,0	7,512	5,5
9	Sweden	14,673	4,8	4,382	3,2
10	Belgium	11,477	3,8	7,030	5,2
11	Slovakia	11,045	3,6	3,872	2,8
12	Netherlands	9,883	3,2	6,143	4,5
13	Finland	6,976	2,3	3,538	2,6
14	Hungary	5,300	1,7	857	0,6
15	Slovenia	4,100	1,3	623	0,5
16	Bulgaria	4,000	1,3	482	0,4
17	Luxembourg	3,830	1,3	1,875	1,4
18	Greece	1,595	0,5	1,543	1,1
19	Others	1,615	0,6	2,024	1,5
	Total	305,599	100	136,321	100

Source: EUROFER, 2023

According to Table 1, the largest share of total employment in the EU metallurgical industry in 2022 was observed in Germany (80.2 thousand people), Italy (30.7 thousand people), France (25.3 thousand people.), Poland (23.9 thousand people) and Romania (21.5 thousand people); the smallest - in Portugal, Denmark, Croatia and Estonia (EUROFER, 2023).

In addition, approximately €143 billion of gross value added (GVA) was generated by the steel industry in 2022. Of this, only €34.5 billion is directly attributable to manufacturing. At the same time, the largest volume of GVA (about 81.5 billion euros) comes from industries serving the metallurgy (EUROFER, 2023). This indicates a high priority for the industry, its protection and development, therefore the EU applies a policy of protectionism and attentively examines all possible threats, including unfair trade practices.

According to Figure 2, in 2022, in terms of GVA, the EU metallurgical industry was in third place (143 billion euros), after the manufacture of beverages (202 billion euros) and the pulp and paper industry (173 billion euros). The metallurgical industry is one of the most economically important in the EU. It is also worth noting that it supports the existence of other important industries, such as the production of electric vehicles, which is actively developing

in the EU, computer equipment, the production of high-precision tools, etc.

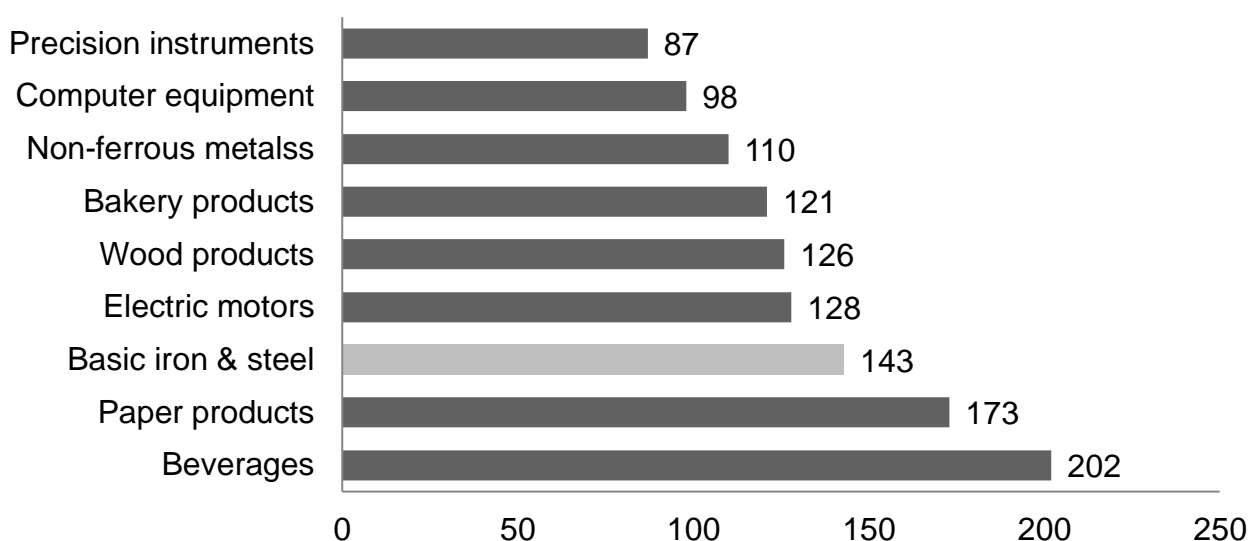


Fig. 2. Gross value added by EU industries in 2022, billion euros

Source: EUROFER, 2023

The largest amount of crude steel is produced in Asia - the share of the region in 2022 was 73.9% or 1,392.1 million tons of crude steel, 1,017 million tons of which were produced by China, i.e. 54% of world production. 125.1 million tons (6.6%) were produced in India and 89.2 million tons (4.7%) in Japan. The second place in terms of crude steel production in the world is occupied by Europe - the share of the region in 2022 was 14.1% or 266.7 million tons of crude steel, the EU accounted for 7.2% or 136.3 million tons. The next region in terms of crude steel production is North America, whose share in 2022 was 6% (112.4 million tons), 4% of which was produced in the USA. In South America, 43.8 million tons (2.3%) of crude steel were produced in 2022, in the Middle East - 44.5 million tons (2.4%), in Africa - 18.9 million tons (1%) and in Australia and New Zealand – 6.7 million tons (0.4%) (EUROFER, 2023).

According to Figure 3, during the period 2012-2018 there were fluctuations in the volume of crude steel production in the EU, but this indicator remained relatively stable. In 2019, there was a decline of 6.2% compared to the previous year, and already in 2020, the production of crude steel decreased immediately by 12%, due to the shutdown of production in industries that use steel because of the coronavirus pandemic. In 2021, this indicator increased by 15.6% to 152.8 million tons, but in 2022, the negative trend continued, which was a consequence of the reduction in steel consumption in the EU (EUROFER, 2023).

According to Table 1, the largest volumes of crude steel among EU countries are produced in Germany, which accounted for more than a quarter of all steel produced in the EU (27%) in 2022. Countries such as Italy (15.8%) and France (9%) also demonstrated large volumes of crude steel production in 2022. The least amount of steel in 2022 was produced in Hungary, Slovenia and Bulgaria (EUROFER, 2023).

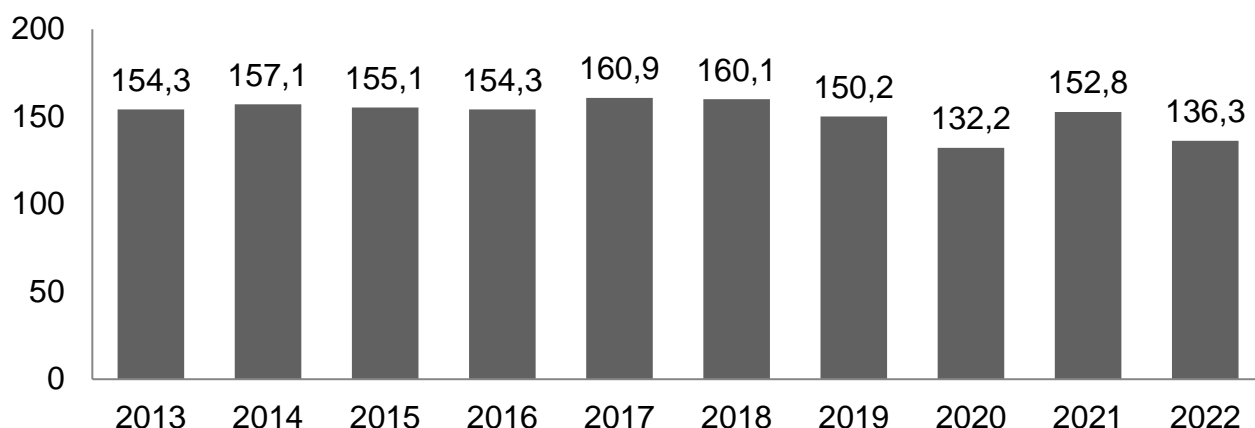


Fig. 3. Dynamics of crude steel production in the EU during 2013-2022, million tons
Source: EUROFER, 2023

It is worth noting that during 2013-2022 there were fluctuations in the volume of crude steel production by the leading countries according to this indicator. In particular, crude steel production volumes in Germany in 2022 amounted to 36.849 million tons, being decreased by 13.6% compared to 2013, Italy – 21.599 million tons (a decrease by 10.4%), France – 12.234 million tons (a decrease by 22.1) (EUROFER, 2023).

According to Figure 4, during 2013-2018, the volumes of real and visible consumption of steel in the EU countries had positive dynamics, however, in 2019-2020 there was a dramatic decline compared to 2018 - by 13.2% of real consumption to 134.6 million tons and by 15.3% of apparent consumption, which was associated with a slowdown in the activity of the metallurgical sector due to the crisis caused by the pandemic and its consequences (EUROFER, 2023). However, in 2021, a recovery of this indicator was observed. According to the results of 2022, the apparent consumption of steel decreased by 7.2% to 139.5 million tons, and the real consumption remained approximately at the same level (EUROFER, 2023). Apparent steel consumption decreased by 19.3% in the fourth quarter of 2022, it was the second-worst performance since the pandemic. Such trends were associated with the energy crisis and the consequences of the war in Ukraine (GMK Center, 2023).

It should be noted that apparent consumption (demand for steel) is supplied by EU producers, excluding imports of materials that are subject to further processing and exports.

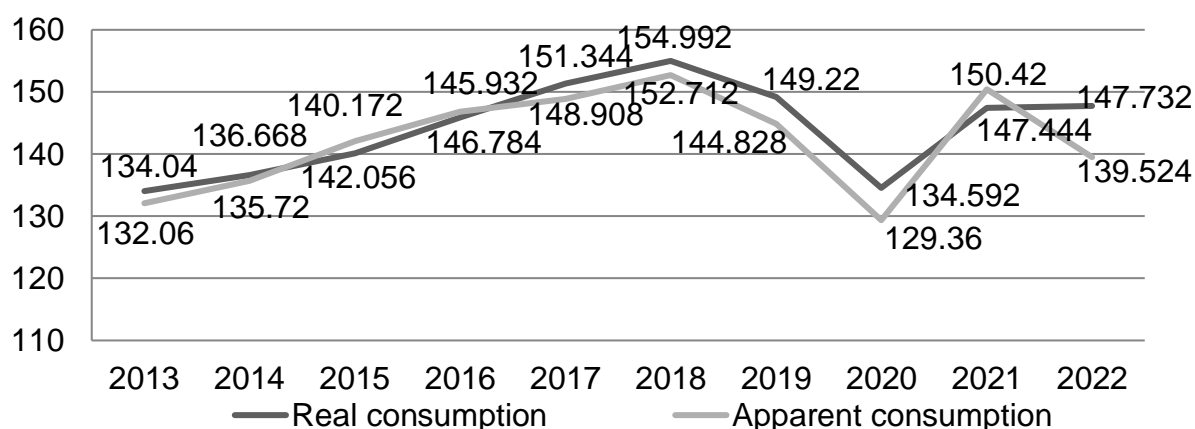


Fig. 4. Dynamics of real and apparent steel consumption in EU countries during 2013-2022, million tons

Source: EUROFER, 2023

According to Figure 5, fluctuations were observed in the dynamics of import volumes during 2013-2022. In 2022, this indicator amounted to 28.9 million tons, having increased by 64% during the period under study, however, compared to 2021, there was a decrease of 4.7%, mainly due to a drop in the supply of flat products by 9%. It is worth noting that 75.8% of imports of metal products account for flat rolled products, 24.2% account for long rolled products. The main countries that import metal products to the EU are Turkey, South Korea, India, China, Taiwan, Vietnam, Japan, Ukraine, and Egypt. At the same time, the volume of imports of metal products to the EU in 2022 decreased from Turkey, Vietnam, Ukraine, and Egypt (EUROFER, 2023).

The main exporters of flat rolled products to the EU in 2022 were such countries as Turkey (13.2%), South Korea (12.8%), India (10.8%), Taiwan (9.7%), China (8.9%), long rental - Turkey (20.4%), China (8.1%), Switzerland (6.6%), Algeria (5.4%), Norway (4.8%) (EUROFER, 2023).

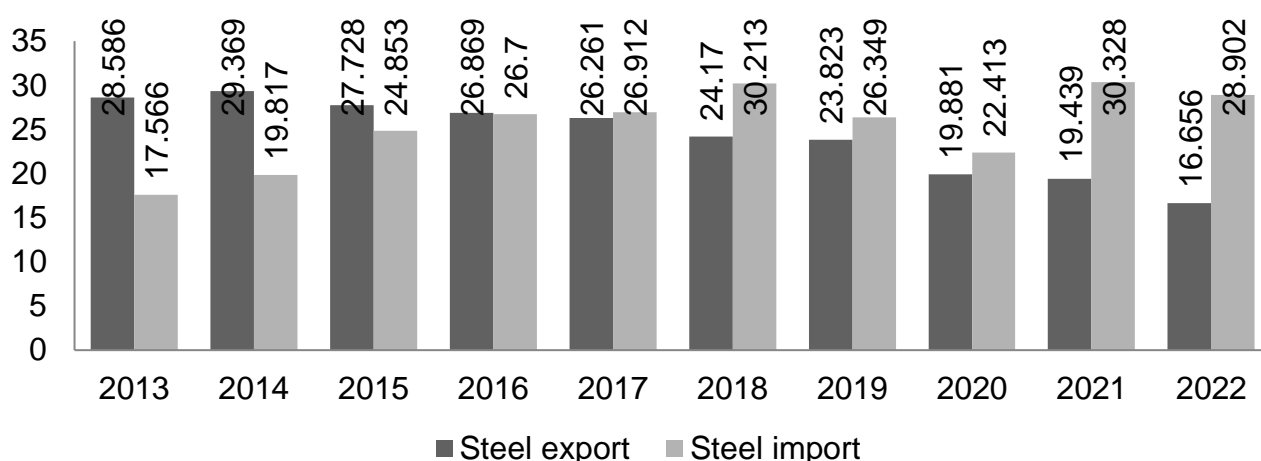


Fig. 5. Dynamics of export and import volumes of EU steel 2013-2022, million tons
Source: EUROFER, 2023

As it is being observed in Figure 5, the dynamics of export volumes during 2013-2022 is negative. In 2022, this indicator amounted to 16.7 million tons, decreasing by 42% during the studied period. It is worth noting that 69% of exports of metal products account for flat rolled products, 31% for long rolled products. In 2022, the volume of exports of flat rolled products from the EU decreased by 10.5% to 11.55 million tons, compared to the previous year, of long rolled products - by 22% to 5.106 million tons. The main countries to which the EU exports metal products are Turkey, the USA, Switzerland, Mexico, China, Canada, Egypt, Brazil, Norway, and India. At the same time, the volume of exports of metal products from the EU in 2022 decreased to all main recipients, except for the USA and Brazil (EUROFER, 2023).

The main importers of flat rolled products in 2022 were countries such as Turkey (17.2%), USA (15.4%), Mexico (7.1%), Switzerland (6.1%), China (3.9%). %, long rolled products - Switzerland (14.9%), Turkey (11.6%), USA (9.9%), Canada (5.2%), Mexico (4.3%) (EUROFER, 2023).

As for forecasts, according to the results of 2023, the demand for steel in the EU should increase by only 0.3% due to a decrease in activity in the construction sector, a reduction in industrial production, a moderate recovery in the automobile industry and

macroeconomic factors (inflation and energy prices). At the same time, it is predicted that in 2024 the demand for steel in the EU will recover and growth is forecasted by 1.3% (GMK Center, 2023).

It is worth noting that the construction industry, which accounts for 37% of the total demand for steel in the EU, is demonstrating a slow recovery trend during 2023. Steel use in construction is expected to decline by the end of the year due to lower investment in civil and infrastructure projects due to tight monetary policy and high interest rates (GMK Center, 2023). In the automotive sector, steel consumption is expected to decrease by 1.2% in 2023 due to changes in steel supply and demand in the market. According to forecasts, the demand for steel in 2024 will decrease from the automobile sector by 1.8% (GMK Center, 2023).

Industrial emissions, including steel production, contribute significantly to global warming worldwide and in Europe in particular. Steel, which is crucial to everything from cars and refrigerators to bridges and railways, accounts for around 7% of global and 5% of European CO₂ emissions. In comparison, aviation accounts for about 2.5% of global CO₂ emissions (European Commission, 2023). Therefore, the urgent issue is the search for advanced technologies for decarbonization of the metallurgical sector, that is, opportunities for the use of metallurgical raw materials that allow saving natural and energy resources, reducing emissions into the atmosphere. In practice, this means a reduction in the need for the construction of new blast furnaces and coke batteries, as well as a significant reduction of the "carbon footprint" in the manufacture of steel and rolled metal (Metinvest, 2021).

It's worth noting that steelmakers have been in the sights of European climate lawmakers since 2005, when the EU began limiting greenhouse gas emissions from factories and power plants through the world's largest emissions trading scheme. Since then, the bloc's member states have faced ever-increasing annual restrictions as the EU is striving for climate neutrality by 2050. Stricter regulation, in turn, has prompted steel producers in Europe to intensify their search for environmentally friendly production methods (European Commission, 2023).

According to the European Commission, until now the EU metallurgical industry has focused its decarbonization strategy mainly on the possibilities of using hydrogen. Other options include not only electrolysis, but also so-called carbon capture. Upgrading steel mills using carbon capture technology can reduce CO₂ emissions as a temporary measure while introducing fundamentally cleaner forms of steel production (European Commission, 2023).

Also, one of the ways to reduce the burden on the environment, that is, to reduce CO₂ emissions, is to expand the use of ferrous metal scrap and DRI/HBI production technology (Metinvest, 2021). It is worth noting that the EU is actively working in this direction, as being evidenced by foreign trade indicators. In particular, during 2013-2022, fluctuations in the dynamics of steel scrap imports were observed, and in 2022 this indicator amounted to 3.95 million tons, decreasing by 27.2% compared to 2013. On the other hand, the dynamics of the export of steel scrap during the studied period had a positive trend and in 2022 reached an indicator of 17.722 million tons, which is 42% more than in 2013 (EUROFER, 2023).

European climate ambitions, as well as the economic and political weight of the steel industry, prompted the EU to approve a trade policy plan known as the Carbon Border Adjustment Mechanism in 2023. It envisages the introduction of a duty on the import of goods into the EU, including steel, from countries whose producers are exempt from climate protection costs (European Commission, 2023).

Today, EU countries are on the "transition path" to a green economy, and the metallurgical industry is an integral part of it, as it provides other sectors with the necessary metals for the introduction of environmentally friendly production technologies. Therefore, the demand for metals is growing rapidly and they are classified as crucial resources for green and electronic technologies. Steel, aluminum, copper, nickel, zinc, and lithium are essential components of this transition because of their use in electric vehicles, wind, solar, and hydrogen technologies, among others. The EU is facing with the challenge of ensuring a secure and stable supply of the metal in order to meet its clean energy targets by 2030 (EcoPolitic, 2021).

However, such changes require significant investments, which will lead to a significant increase in the cost of production. The total annual costs of steel production until 2050 are estimated at 80-120 billion euros in the EU. The amount of energy resources that the European steel industry is likely to need will also increase dramatically. The sector will require around 400 TWh of CO₂-free electricity annually by 2050. This is more than seven times higher as for the current electricity purchases by the steel industry (EUROFER, 2023).

Therefore, in order to achieve climate and energy goals by 2030 and implement the strategy of a climate-neutral Europe by 2050 with the introduction of clean steel production, a well-founded road map with the definition of medium- and long-term ways of decarbonization of the metallurgical industry, namely ways of financing, involvement of stakeholders and assessment of the consequences of EU policy (economic, social, industrial and environmental), etc is extremely needed. As a result, the implementation of the steel industry decarbonisation policy will help to position the EU as a supplier of low-carbon products, services and advanced technologies in steel production, as well as will contribute to the "green transition" and the fight against climate change on a global scale.

Conclusions. The conducted research indicates the important role of the metallurgical industry for the economies of the EU countries. In particular, this sector provides more than 2.5 million jobs, both direct and indirect employment; according to the indicator of gross added value, the metallurgical industry is in the third position; and in terms of crude steel supply to the world market, the region ranks second. In addition, in recent years there has been a steady trend towards the reduction of the "carbon footprint" and the transition to the technologies of the so-called "green metallurgy". Therefore, European steel producers are introducing ecological production methods. Metal products are a highly effective means of mitigating environmental impacts in many areas of application, and steel, in turn, is a key material in the development of the circular economy of the EU. Thus, taking into account the need for a "green transition" of the industry and ensuring its effective functioning, the EU is introducing WTO-compliant measures that will allow the metallurgical industry to reimburse the costs of its decarbonization fully. Such a policy should also encourage global competitors to follow the path of decarbonization of the metallurgical sector.

References

1. Belousova, K. EU steelmakers initiated the creation of their own green transition path. (2023). Ecopolitic. Doi: <https://ecopolitic.com.ua/en/news/metalurgi-ies-inicijuvani-stvorenniya-vlasnogo-shlyahu-zelenogo-perehodu-2/>
2. Employment in Europe - Statistics & Facts. (2023). Statista. Retrieved from <https://www.statista.com/topics/4095/employment-in-europe/>
3. European Steel in Figures. (2023). The European Steel Association. European steel industry seeks green credentials to match its economic, political weight. (2023). European Commission.
4. Kolisnichenko, V. (2023). Demand for steel in the European Union will grow by 0.3% in 2023. GMK Center. Retrieved from <https://gmkc.center/en/news/demand-for-steel-in-the-european-union-will-grow-by-0-3-in->

- 2023-eurofer/
5. Low-carbon roadmap. (2023). Pathways to a CO₂-neutral European steel industry. The European Steel Association. Retrieved from <https://www.eurofer.eu/assets/Uploads/EUROFER-Low-CarbonRoadmap-Pathways-to-a-CO2-neutral-European-Steel-Industry.pdf>
 6. Repository of older EUROFER documents. (2023). The European Steel Association. Retrieved from <https://www.eurofer.eu/publications/archive/repository-of-older-eurofer-documents>
 7. Steel: Preserving sustainable jobs and growth in Europe (2016). European Commission. Retrieved from https://ec.europa.eu/commission/presscorner/detail/de/MEMO_16_805
 8. Брухт та ГБЗ: на шляху до "зеленої металургії". (2021). METINVEST. Retrieved from <https://metinvestholding.com/ua/media/news/lom-i-gbzh-na-puti-k-zelenoj-metallurgii>
 9. Колісниченко, В. (2023). Євросоюз за підсумками 2022 року скоротив імпорт сталі на 5% р./р. GMK Center. Retrieved from <https://gmk.center/ua/news/ievrosojuz-za-pidsumkami-2022-roku-skorotiv-import-stali-na-5-r-r/>
 10. Матеріали Презентацій Університету Прикладних наук Мітвайда (Німеччина) з дисципліни «Макроекономіка», 2022.

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ANALYSIS OF THE EFFECT OF MONETARY POLICY INSTRUMENTS IN THE CONTEXT OF GLOBAL STAGFLATION

Abstract. The article is devoted to the study of the problems of effective application of monetary policy in the context of stagflation. The author reveals the causes of stagflation and analyzes a number of monetary policy tools that can be used to overcome the consequences of crisis processes. Special attention is paid to the analysis of the effects of exchange rate targeting in small open economies and the role of the transmission mechanism in economic crises. The article also highlights potential institutional and economic risks that may affect the effectiveness of monetary policy in the twenty-first century. A study of the impact of monetary measures on the stock market and government debt market is presented.

Key words: monetary policy, stagflation, exchange rate targeting, interest rates, economic threats, equity markets, bond markets, central bank independence.

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АНАЛІЗ ДІЇ ІНСТРУМЕНТІВ МОНЕТАРНОЇ ПОЛІТИКИ В УМОВАХ СВІТОВОЇ СТАГФЛЯЦІЇ

Анотація. У статті розглянуто сутність та особливості методики покращення бізнес-процесів на підприємствах Lean Six Sigma. Метою статті є дослідження ключових аспектів і особливостей Lean Six Sigma для покращення якості та ефективності виробничих процесів на підприємствах. Для досягнення поставленої мети використано методи аналізу, аналогії та порівняння. Розглянуто покладені в основу Lean Six Sigma Hochschule Mittweida

підходи до управління якістю: Lean management та Six Sigma. Проаналізовано недоліки окремих концепцій та переваги їх синтезу. Визначено роль Lean Six Sigma у сучасному бізнесі. Практична значимість дослідження полягає у наданні рекомендацій для організацій щодо впровадження даної концепції з метою покращення якості своїх процесів, досягнення успіху та конкурентних переваг.

Ключові слова: Lean Six Sigma, ощадливе управління, шість сигм, процеси, управління, якість, вдосконалення, підприємство.

Problem statement. The devastating consequences of the global financial crises lead to the formation of an unfavourable external environment for the functioning of the real and financial sectors in the most open economies. However, globalisation processes and the interpenetration of economic systems of the world's countries have a significant impact on internal processes and the potential for resistance to external adverse factors, which provokes the expansion of negative trends for most economies, determines the decline in the level and quality of life within the country.

Relevance of the chosen topic. The situation with regard to the development of the economic systems of open economies is complicated by the instability of the economic systems of countries around the world, including the EU, due to the impact of socioeconomic and geopolitical factors that negatively affect positive development dynamics and lead to inflation processes, in particular, restrictions on business activity as a result of the COVID-19 pandemic, as well as the intensification of military conflicts in the European part of the world. The deterioration of the macroeconomic situation in terms of restrictions on economic activity under the threat of inflation leads to the spread of stagflation. The emergence of these problematic aspects of economic development makes it important for regulators to study the effectiveness and improve the efficiency of monetary policy instruments to counteract the effects of stagflation.

Analysis of recent research and publications. The phenomenon of stagflation, which was noted in developed economies during the 1970-80s, is actively discussed in the economic literature. Zherdetska L. and Kambur M. (L. Zherdetska, M.Kambur, 2023) argues that it is the current recession that has renewed academic interest in high inflation when economic growth slows down. The study of issues related to stagflation processes takes an important place in the works of researchers and economists, in particular, certain aspects were considered by Taylor J., Bernanke B., Lucas R., Blanchard O., Phillips A., Friedman M., Cagan Ph.. Also, such ukrainian scientists as Lukyanenko I., Dadashova P., Farina O., Galchynskiy A., Mishchenko V., Zveryakov M., Zherdetska L., Kovalenko V. devoted their works to the study of the essence of the transmission mechanism in the conditions of stagflation.

Purpose of the article. To investigate the problematic aspects of the development of the countries economies and directions for increasing the effectiveness of macro-regulators' actions in the context of the use of monetary policy tools for leveling the negative consequences of stagflation processes under the influence of negative external factors.

Presentation of the main research material and results obtained. European The economic recession caused by the Covid-19 coronavirus pandemic has forced most governments around the world to turn to Keynesian measures to support effective demand by increasing public spending in the form of a programme to provide cash assistance to

businesses and households that have lost the ability to generate their own profits due to reduced production. The significant growth of the money supply, which was not ensured by an increase in GDP, but rather due to its decline, was one of the reasons for the rise in global inflation. Most countries around the world are experiencing episodes of stagflation, a phenomenon characterised by slower economic growth and high inflation, which is more common in emerging economies in the current environment.

According to the data shown in figure 1, the annual increase in global inflation in 2021 was 1.54%. For most countries in the world, inflation rose quite dramatically. For example, the EU's inflation rate reached double digits for the first time in its history. The corresponding increase in the inflation rate was accompanied by a decline in supply, which was the main reason why the global community faced the problem of stagflation at a new level.

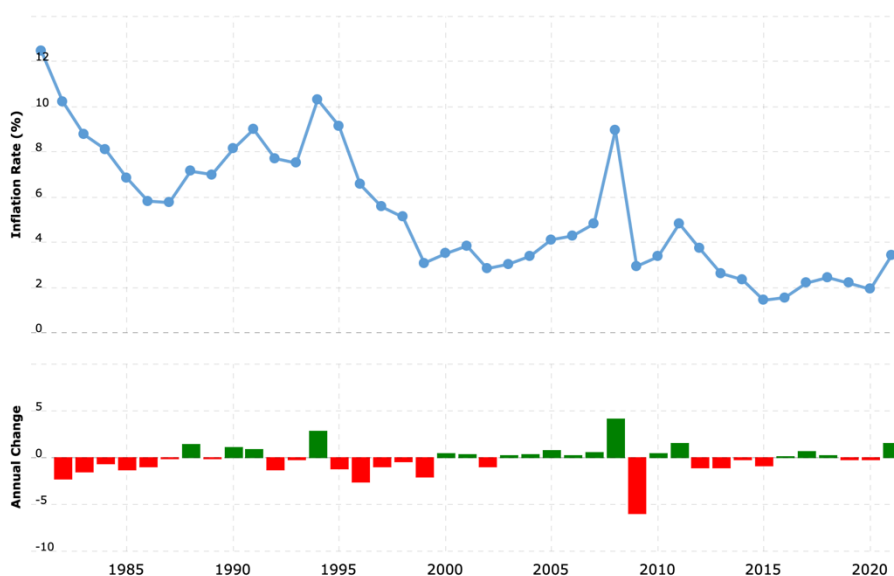


Fig. 1. Global inflation rate for the period from 1995 to 2022
Source: World Bank Open Data, 2023

The current global crisis caused by the Covid-19 pandemic requires active government and regulatory action to restore economic activity and stabilise the currencies of countries around the world.

The stagflationary crisis that Ukraine is currently experiencing is caused not by the effects of government programmes implemented during the pandemic, but by the supply shock that occurred as a result of the escalation of the armed conflict in Ukraine. The intensification of military actions has significantly escalated the problems that occurred after the development crisis caused by the 2020 pandemic, in particular, the decline in business activity, trade and investment due to reduced demand, supply chain problems and the withdrawal of fiscal and monetary incentives, price volatility for key commodities, local commodity shortages, etc.

Macroeconomic theory traditionally identifies three main monetary policy instruments, namely:

1. Setting the policy interest rate;
2. Regulation of the required reserve ratio;
3. Entry of the central bank into the bond market;

At the same time, Harkusha Y. (Y. Harkusha, 2016) determines that the National Bank of Ukraine is characterised by its entry into the market with deposit certificates, a special type of obligation of the National Bank of Ukraine to second-tier banks. Kovalenko V. and Serhieieva O. (V. Kovalenko, O. Serhieieva 2022) note that in the process of developing the financial market and infrastructure, central banks now have a much wider range of monetary policy instruments at their disposal, namely:

1. Setting and enforcing reserve ratios for banks;
2. Interest rate policy;
3. Refinancing of banks;
4. Managing foreign exchange reserves;
5. Operations with securities (except for securities confirming corporate rights), including treasury bills, on the open market;
6. Regulation of capital imports and exports;
7. Introducing a requirement for the mandatory sale of a portion of foreign currency proceeds for a period of up to six months;
8. Changing the terms of payments for export and import of goods;
9. Emission of own debt obligations and transactions with them;

Comparing traditional and modern instruments, we can conclude that central banks are increasing their powers to regulate the economy, moving away from the libertarian trend and the principle of laissez-faire. This is a necessary step related to the duty of central banks to ensure the stability of the national currency. It is advisable to pay attention to the effectiveness of using these tools in practice. First of all, consider controlling the exchange rate. This tool is quite popular for small open economies, including Ukraine. When using this tool, the central bank maintains a certain interval value of the exchange rate through operations in the interbank foreign exchange market. Among the above-mentioned monetary policy instruments, the instruments of fixing the exchange rate also include: management of foreign exchange reserves; regulation of capital imports and exports; introduction of a requirement to sell a part of foreign currency earnings for up to six months; and changes in the terms of settlement of export and import transactions. It is worth noting that the use of administrative regulation tools, such as changing the terms of settlement and requiring the sale of a portion of foreign currency proceeds, is not used by central bankers on a regular basis, but only in crisis and destabilising situations.

Most countries do not use this tool to overcome the disruptive effects of stagflation. First, the rise of the national currency reduces the competitive advantage of national manufacturers in the national and international markets, which in turn leads to the effect of import substitution, which reduces GDP, further deepening the economic recession. Secondly, fixing the exchange rate, among other things, leads to a decrease in gold and foreign exchange reserves, which is dangerous for small open economies, which should be the main "users" of this instrument. Even if there is a sufficient amount of gold and foreign exchange reserves, modern economic theory shows that the instrument of fixing the exchange rate is ineffective.

Fisher S. (Fischer & Stanley, 2001) believes that a fixed exchange rate is inappropriate from the point of view of microeconomic analysis. In his opinion, one of the advantages of a market exchange rate is a more flexible adjustment to real asymmetric shocks.

But from the point of view of macroeconomic theory, for developing countries where the capital market is considered underdeveloped and where macroeconomic instability is quite high, a fixed exchange rate is a necessary factor for macroeconomic policy and

household expectations. Equally important for small open economies, fixed exchange rates reduce transaction costs for international trade.

However, Edward & Levy-Yeyati (Edward & Levy-Yeyati, 2003) in their empirical study, using a group assessment of 180 countries, showed the positive impact of a flexible exchange rate on economic development.

The National Bank of Ukraine's transition to a market-based exchange rate in 2015 had positive consequences for economic development. However, at present, fixing the exchange rate and imposing a number of currency restrictions in Ukraine is a necessary measure that allows the state to control the outflow of foreign currency assets and the increasing dollarisation of the economy. In the context of Ukraine, the exchange rate channel of the transmission mechanism plays an extraordinary role - a supply shock, lack of necessary production capacities is covered by foreign imports, and that is why the exchange rate is a significant component in forming the level of consumer and producer prices (Sheludko S. A., 2019).

The most effective monetary policy tool of central banks around the world is the key policy rate. Among other things, the NBU discount rate [key rate] is one of the monetary instruments used by the national bank of Ukraine to set a benchmark for the cost of attracted and placed funds for the relevant period for monetary market participants and is the main interest rate. An increase or decrease in the key policy rate under the inflation targeting policy regime depends on the monetary policy chosen by the regulator. When choosing a policy of expensive and cheap money in a stagflationary environment, the central bank needs to qualitatively assess the causes of inflation - whether they are purely monetary or caused by a short-term supply shock. If the central bank chooses a deflationary policy, the inflation rate is reduced by withdrawing a certain part of the money supply from circulation, which, according to the Fisher equation, reduces the amount of money available for transactions. That is why deflationary policy, in addition to the obvious positive results of strengthening the national currency, has a rather negative effect, which is especially noticeable in a global economic recession, - it slows down GDP growth (Dierks & Leef H., 2023).

In 2021-2022, most central banks raised their key policy rates to deal with the effects of inflationary pressure, despite the threat of further slowing economic development,

Central banks, responding to challenges to macroeconomic stability, have chosen a strategy of focusing on the stabilisation of the value of the currency, often at the expense of the need to stimulate the real economy. As shown in Figure 2, the global economy has not returned to the trend of early 2019, meaning that the global economy has lost strength and is relatively weak.

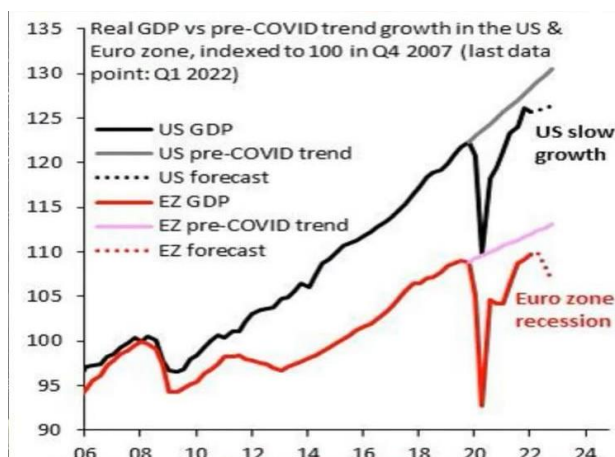


Fig. 2. US real GDP, EU real GDP, US GDP trend 2019, EU GDP trend 2019
Source: *International Monetary Fund, 2022*

Strict monetary policy may have a negative impact on business activity, in particular, by reducing the liquidity in the global financial system. As a result of this process, the assets of US companies may suffer a decline of more than \$1.4 billion. According to the World Bank, stocks of goods in the United States and the European Union exceed the volume of new orders, and the existing imbalance indicates a phenomenon that can be called "economically unjustified market overload".

The rise in interest rates due to monetary policy has led to a decline in demand, which has led to a reduction in production. This, in turn, can lead to an increase in unemployment, which triggers an additional decline in gross domestic product (GDP) and higher inflation expectations in the face of high unemployment. In some situations, producers may be forced to lay off workers, which in turn may lead to a further decline in GDP.

The global economic recession is also increasing the level of policy uncertainty. Figure 3 shows the growth of the policy uncertainty index in Germany. RBC's research shows that Canada is also in a recession. In addition, Canada being a satellite of the United States will stimulate recessionary trends in the United States.

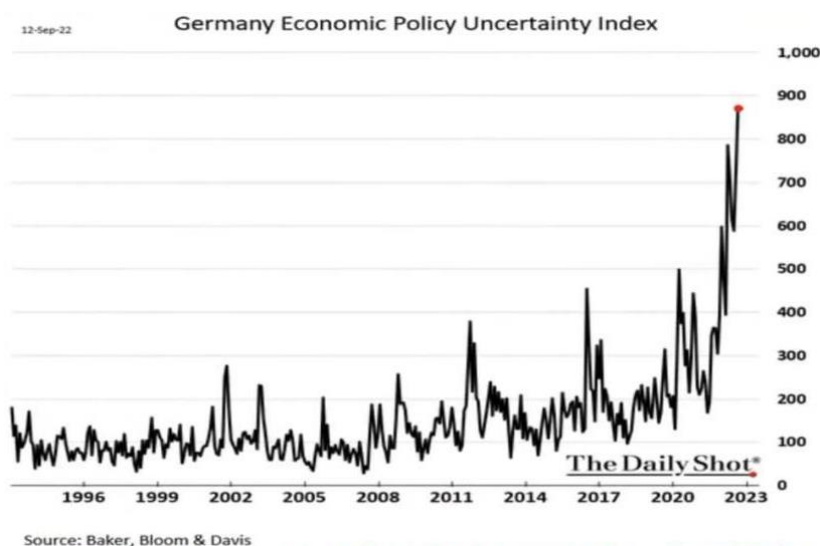


Fig. 3. Germany economic policy uncertainty index
Source: *Economic Policy Uncertainty Index, 2023*

The external economic environment is also having a negative impact on the activities and functioning of the US financial market. Strict monetary policy is most strongly reflected on the financial market. To begin with, equity market capitalisation continues to be under pressure and is expected to reach its lowest level since 2020 (Demary, Markus & Michael Hüther, 2022).

When the key policy rate rises, loan payments increase, which leads to an increase in the loss from financial activities of the enterprise. In turn, the profit from operating activities decreases, as households prefer investment profits to liquidity. Increased losses from operating and financial activities lead to a decrease in the net profit of the company, and thus reduce the amount of dividends received by shareholders.

Dividends are positively related to profits from investment activities, leading to a decline in net (retained) income for an increasing number of companies. There is a downturn in the securities market, which causes a decline in share prices. For example, after the US Federal Reserve raised its key policy rate in 2022 in response to the overheating of the economy, which triggered galloping inflation, the Dow Jones Industrial index (DJI) fell by 73.55 points, or 0.22%, to 33,147.25; the S&P 500 index (SPX) lost 9.78 points, or 0.25%, to 3,839.50; and the Nasdaq composite (IXIC) was down 11.61 points, or 0.11%, to 10,466.48 (World Bank Open Data).

When a central bank decides to raise its key policy rate, newly emitted government securities, such as treasury bills and bonds, are often seen as the safest investments. They tend to experience a corresponding increase in interest rates. In other words, the risk-free rate rises, making investments in government securities more desirable. In turn, this increase leads to a demand for higher overall returns required for equity investments. As losses from operating, investing and financing activities increase, the risk premium decreases, so investors may feel that equities have become too risky and will try to invest their money in alternative financial instruments. In addition, an increase in the key policy rate, as a reaction of the regulator to inflation, leads to an increase in the discount rate, thereby reducing the yield to maturity of a long-term bond (Wagdi, Osama, Ahmad Sayed Abd Elbaseet Mustafa & Sharihan Sharihan, 2023).

Let us support the latter theoretical observation by calculating the Sharpe coefficient (Agarwal, A. & Lorig, M., 2020) for the Vanguard 500 Index Fund ETF (which will reflect the profit from shares) and the Vanguard Long-Term Bond Index Fund ETF (which will reflect the profit from long-term bonds). Having statistically processed the values for the quotes of financial assets for the period from the beginning of 2014 to the beginning of 2023, we will get the following values:

$$SHARPE (VOO) = 2,175\%$$

$$SHARPE (BLV) = -2,272\%$$

which demonstrates that when the discount rate rises, the profitability of an investment portfolio containing long-term bonds decreases significantly. This assumption is confirmed when applying the Markowitz model to a portfolio containing only two financial instruments: equities and long-term bonds - minimising risks with the highest income is observed only when the portfolio does not contain a long-term bond.

However, not all regulators pursue restrictive measures to prevent inflationary pressures. In most cases, this is due to the dependence of the country's central bank on a

populist government that puts short-term interests above the country's economic development. A demonstrative and relevant example of the need for central bank independence and an adequate theoretical model of macroeconomic regulation is the government's policy in modern Turkey.

Turkish President Recep Erdogan intended to introduce an economic policy in which he told the central bank to cut the key policy rate to single digits ahead of the 2022 elections. Erdogan's beliefs were based on a modified Fisher effect equation ($\pi=r-i$), which states that the lower the nominal rate is, while the real rate remains unchanged, the lower the inflation rate is. These steps were based on the assumption that raising interest rates by the central bank would help to control inflation, which contradicts the "traditional" view of monetary policy.

As a result, Erdogan's actions have led to the worst inflation in the country in a quarter of a century. After the latest rate cut of 250 bps, the key policy rate of the Central Bank of Turkey is 10.5%.

The Financial Times reports that consumer price growth in Turkey accelerated for the seventeenth month in a row, with inflation reaching 85.5% in October 2023 under President Recep Tayyip Erdogan's economic policy (Hayatsever H. & Erkoyun E., 2023).

Food and transport prices have doubled over the year, exacerbated by higher global energy prices following the escalation of full-scale military actions in Ukraine. Turkey is only ahead of Zimbabwe, Venezuela, Syria, Lebanon, and Sudan in terms of inflation.

Summarising the conclusions from the analysis of macroeconomic conditions, it is reasonable to state that the separate use of monetary policy instruments in the context of stagflation may be ineffective. This assertion is based on the recognition that monetary policy is traditionally used primarily in times of crises and monetary disturbances in the context of inflation caused by supply shocks. It is important to understand that this type of inflation arising from supply shocks may not be accompanied by economic growth, making monetary policy less effective.

Conclusions. The global financial crisis, caused not only by economic instability but also by the effects of the COVID-19 pandemic, has created serious challenges for economic development. In this unforeseen context, stagflation, defined as a combination of slowing economic growth and high inflation, is often observed. Governments around the world have taken various measures, such as monetary assistance, to try to overcome the effects of these problems, but this has often resulted in a global rise in inflation. Central banks are responding to the challenges of the current economic environment by implementing tight monetary policies. This, in turn, causes a decrease in the level of liquidity in the financial system and has a negative impact on the stock market. The issue of deflation is also important, as attempts to reduce inflation may affect economic growth.

With the global economic recession comes uncertainty in economic policy. The dependence of central banks on governments that may be prone to populist decisions makes it difficult to adopt effective strategies. An example is the government's policy in Turkey, which led to hyperinflation. The current crisis of stagflation generates systemic risk in the banking system, which is not only an intermediary in the financial system but also a key institution for redistributing national product. In this context, it is important for central banks to focus on macroprudential policy and banking system stabilisation.

In solving the problem of stagflation, it is recommended that central banks work closely with governments to develop joint strategies. An important aspect is the creation of memorandums to coordinate actions aimed at overcoming monetary challenges and developing programs to support business infrastructure. Such an approach stimulates production, increases employment and contributes to the formation of effective demand, which, in turn, contributes to the recovery of economic growth

References

1. L. V. Zherdetska & M. V. Kambur (2023). Macroeconomic policy of central banks in modern conditions. Scientific Bulletin of Odessa National University, 1, 65-73. doi:10.32680/2409-9260-2023-1-2-302-303-65-74. [in Ukrainian]
2. Harkusha Y. O. (2016) Activities of the National Bank of Ukraine on the open market: transactions with certificates of deposit. Actual problems of the development of the economy of the region, 12, 12-16. Retrieved from <http://lib.pnu.edu.ua:8080/bitstream/123456789/10652/1/2540-Article%20Text-5087-1-10-20200312.pdf> [in Ukrainian]
3. Kovalenko, V. V., & O. S. Sergeeva (2022) The discount rate as a tool for regulating inflation in conditions of uncertainty and risk. Bulletin of the Kherson National Technical University, 3 (82), 97-102. doi: <https://doi.org/10.35546/kntu2078-4481.2022.3.13>. [in Ukrainian]
4. Kovalenko V.V. & Cherkashina K.F. (2010) Central Bank and Monetary Policy. Retrieved from https://essuir.sumdu.edu.ua/bitstream-download/123456789/50334/5/Kovalenko_Tsentrallyi_bank.pdf [in Ukrainian]
5. Sheludko S. A. (2019) Inflation expectations as a channel of the monetary transmission mechanism. Financial and credit system: problems and innovations: a collection of materials of the 4th International Scientific and Practical Internet Conference, 191-194. Retrieved from <http://dspace.oneu.edu.ua/jspui/handle/123456789/10384> [in Ukrainian]
6. Fischer & Stanley (2001, Spring). Exchange Rate Regimes: Is the Bipolar View Correct? Journal of Economic Perspectives 2, 3–24. Retrieved from <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.15.2.3>
7. Edwards, Sebastian & Levy-Yeyati, Eduardo (2003). Flexible Exchange Rates as Shock Absorbers. NBER Working Paper. Retrieved from https://www.nber.org/system/files/working_papers/w9867/w9867.pdf
8. Dierks & Leef H. (2023). Monetary Policy and Stagflation: A trade-off between price stability and economic growth? Journal of New Finance 3(2), 1-10. doi: 10.46671/2521-2486.1031.
9. Demary, Markus, & Michael Hüther. (2022) How large is the risk of stagflation in the eurozone? Intereconomics 57(1), 34-39. doi: 10.1007/s10272-022-1025-x .
10. Wagdi, Osama, Ahmad Sayed Abd Elbaseet Mustafa & Sharihan Mohamed Aly (2021). Stock market return and stagflation under two control variables: international evidence. Journal of Tianjin University Science and Technology, 54, 120-140. Retrieved from <https://tianjindaxuexuebao.com/dashboard/uploads/10.%20AH84W.pdf>
11. L. V. Zherdetska (2016). Macroprudential policy: world experience and Ukrainian practice. Bulletin of socio-economic researches: coll. of science works; Odesa National Economic University, 60(1), 239-246. doi: [https://doi.org/10.33987/vsed.1\(60\).2016.239-246](https://doi.org/10.33987/vsed.1(60).2016.239-246) [in Ukrainian]
12. Hayatsever H. & Erkoyun E. (2023). Turkey sets out tough economic path in policy turnaround. URL: <https://www.reuters.com/world/middle-east/turkey-downgrade-economic-view-path-policy-orthodoxy-2023-09-06/> (date of access: 12.11.2023).
13. World Bank Open Data (2023). World Bank Open Data. Retrieved from: <https://data.worldbank.org/>
14. International Monetary Fund. (2022). World Economic Outlook: Countering the Cost-of-Living Crisis. Retrieved from: <https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>
15. Economic Policy Uncertainty (2023). Germany Economic Policy Uncertainty Index. Retrieved from: <https://www.policyuncertainty.com/>
16. Agarwal, A., & Lorig, M. (2020). The implied Sharpe ratio. Quantitative Finance, 20(6), 1009-1026. doi: <https://doi.org/10.1080/14697688.2020.1718194>
17. Samson A. (2023). Turkey raises interest rates for fifth time in as many months. Financial Times. Retrieved from: <https://www.ft.com/content/d4a3111e-2f1f-4e1a-90a5-7b430daa7b76>

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THE IMPACT OF THE WAR ON THE REAL ESTATE MARKET

Abstract. The impact of war on the real estate market is a complex and multifaceted phenomenon that can have severe consequences for this sector of the economy. In modern society, the real estate market is one of the critical components of the country's economic development.

Population decline, socio-economic transformations and technological innovations create new challenges and opportunities for the real estate market. In 2023, the development of the Ukrainian real estate market is of particular interest. Changes in the political, economic and socio-cultural environment of Ukraine are creating new conditions for business. There are also new trends in the legislative regulation and taxation of real estate that affect the activities of market participants.

Per the topic's relevance, a detailed analysis and assessment of the Ukrainian real estate market is carried out. The main problems that need to be overcome for further market development are outlined, and effective methods of dealing with the identified problems are proposed concerning the forecasts of the Ukrainian real estate market after the war.

Keywords: real estate market, Ukrainian economy, market analysis, military conflict, Ukrainian real estate.

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ВПЛИВ ВІЙНИ НА РИНОК НЕРУХОМОСТІ

Анотація. Вплив війни на ринок нерухомості є складним та багатограним явищем, яке може мати серйозні наслідки для цього сектору економіки. У сучасному суспільстві ринок нерухомості є однією з ключових складових економічного розвитку країни.

Зменшення населення, соціально-економічні трансформації та технологічні інновації створюють нові виклики та можливості для ринку нерухомості. У 2023 році розвиток ринку нерухомості України викликає особливий інтерес. Зміни в політичному, економічному та соціокультурному середовищі України створюють нові умови для функціонування бізнесу. Також прослідковуються нові тенденції в законодавчому регулюванні та оподаткуванні нерухомості, які впливають на діяльність учасників ринку.

Відповідно до актуальності теми проведено детальний аналіз та оцінку ринку нерухомості України. Окреслено основні проблеми, які необхідно подолати задля подальшого розвитку ринку, запропоновано ефективні методи боротьби з окресленими проблемами стосовно прогнозів ринку нерухомості України після війни.

Ключові слова: ринок нерухомості, економіка України, аналіз ринку, воєнний конфлікт, нерухомість України.

Problem statement. Unfortunately, the real estate market today is in a rather complicated state, and the population is facing a sharp rise in prices for finished buildings. It is difficult to make any predictions, as no one knows when the hostilities are expected to end, what consequences Ukraine will suffer, and what condition the already built facilities in cities and other settlements will be in. Ukraine's martial law has an impact not only on national markets but also on foreign ones.

Relevance of the chosen topic. As a result of active hostilities, 74.1 million square meters of housing were destroyed or damaged as of September 2022, more than 7% of the total available housing stock. Studying the primary and secondary real estate markets allows us to identify trends and dynamics of changes in real estate values in Ukraine and globally. Therefore, constant analysis and monitoring of the real estate market is crucial to determine the further development of the market. In addition, the war makes its adjustments and changes the real estate market in the country.

Analysis of the latest research and publications. The current conditions of the real estate market are extremely difficult for research. One of the main problems is the complexity of long-term forecasts. Today, more than ever, it is crucial to analyze the peculiarities of the national real estate market development, which is the subject of many works, including those by E. Lianze, V. Sharaev, I. Ivanov, O. Drapikovsky, V. Lirutseva and others. However, more attention should be paid to the peculiarities of market functioning in wartime with prospects for further recovery.

The purpose and objectives of the article. To analyze the functioning of the market under martial law with a forecast for the postwar period, taking into account the experience of other countries.

Presentation of the main research material and results obtained. As an integral part of the market space, real estate markets have their regularities: when the discount rate, securities yields, inflation in the national currency and the strengthening of the national currency against other currencies decrease, capital inflows to the real estate market are stimulated, and real estate prices increase (Rubel, Samotoyenkova, 2020, p. 25).

Factors affecting the development of the real estate market are categorized. The most influential at the moment are external factors. Namely, military actions that affect not only the real estate market in Ukraine but also the entire global economy. External factors affecting the real estate market can be divided into three groups (Figure 1).



Figure 1. External factors affecting the real estate market

Source: compiled by the author

If we talk about internal factors, we can distinguish the following (Table 1).

These groups of factors will have a significant impact on the future development of the real estate market. To adjust the value of real estate in a particular region or area, additional factors affecting local real estate values should be added.

Table 1.

External factors influencing the real estate market

Factor	Characteristics
Market	Supply and demand, market risk, market flexibility, and the interaction between the primary and secondary real estate markets.
Political	These include the socio-economic orientation of the ruling party's policy, the frequency of election campaigns, government actions in the economy, and the actions of local governments in relation to various segments of the real estate and land market.
Economic	Level of development, GDP growth, monetary policy, mortgage lending, inflation, business activity, employment, and purchasing power.
Social	The level of socio-economic structure of the population, professional level of the population, consumer demand of the population, income level of different social groups, and generally accepted housing conditions.
Demographic	The level of socio-economic structure of the population, professional level of the population, consumer demand of the population, income

	level of different social groups, and generally accepted housing conditions.
Geographical and natural	Population size, population growth, fertility, mortality, population density, migration processes, and urbanization.
Scientific and technical	Technology and organization of construction, housing cost parameters, safety parameters.

Source: compiled by the author on the basis of data (Rubel, Samotoyenkova, 2020, p. 26).

Factors affecting the value of local real estate include:

- Location;
- Number of storeys;
- Materials of walls and floors;
- Structural features of the building and floor plan;
- The general condition of entrances, common corridors and adjacent areas;
- Availability of autonomous heating and total utility costs;
- Availability of security and video surveillance;
- Availability of underground or outdoor parking;
- Availability of bomb shelters;

The restructuring of the Ukrainian economy will largely depend on investment flows. Ukraine has already identified regions and cities in which foreign investors and even the country as a whole will invest significant material resources. Electronic maps and city development plans have already been prepared using a geographic information system. Unfortunately, a lot depends on the volume and intensity of investment. This directly affects the development of a particular territory—namely, the development and active growth of the real estate market.

We also identified factors that affect the primary real estate market. It is important to summarize the prospects for developing the primary real estate market and the interaction of the primary real estate market with the secondary market. Let us consider the factors affecting the primary real estate market:

- Domestic inflation rate;
- Exchange rate of the franc against foreign currencies;
- Gross national product growth rate;
- The growth rate of the gross national product;
- The level of wages received by the population;
- Interest rates on bank mortgage loans;
- Energy prices;
- Prices for construction materials;
- Prices for construction and installation works;
- Prices for fuels and lubricants;
- Cost of land for construction;
- Additional costs for land allocation and design;
- Costs of connecting the building to networks;

What is happening now with the real estate market in Ukraine, and what consequences can we expect after the war? We propose to make a detailed analysis in stages: global real estate market trends (to find out the reasons for the problems that will arise in the further analysis of the real estate market in Ukraine); Ukraine until February 24, 2022; Ukraine during martial law and expected forecasts for the post-war period.

To begin with, let us look at global real estate trends as they identify possible reasons why Ukraine and the global real estate market could have faced problems despite the war.

The needs and preferences of the public are changing due to technological development and economic turmoil, which affects the implementation of real estate projects (Karapetian, Kvasovskiy, 2017, p. 126).

Today, priority is given to integrated regional development rather than pointed development. The solution is to organize the environment based on "everything you need at hand": diverse buildings, necessary infrastructure, a developed public transport network and recreational areas. European cities often choose this solution to create comfortable living spaces.

Such facilities appear regularly around the world. They combine three or more functions, for example, a business centre with apartments and retail space. Multifunctional projects allow developers to spread potential risks.

In order to improve the cost-effectiveness and quality of project maintenance, as well as reduce maintenance costs, developers are introducing and using new technologies and real estate management techniques. The introduction of such tools increases the market value and competitiveness of real estate, especially office real estate, and helps to attract tenants (Karapetian, Kvasovskiy, 2017, p. 128).

For example, innovative technologies can reduce the consumption of resources (energy, water) in buildings and optimize the amount of waste, especially by monitoring the fullness of garbage cans and adjusting waste collection schedules accordingly. They also have a positive impact on the environment by reducing greenhouse gas emissions. This topic is particularly relevant in connection with the requirements implemented by European countries to achieve sustainable development goals.

The movement in this direction will continue, and soon, innovative technologies will become mandatory for use at all stages of the building life cycle, from design to operation and demolition. (Karapetian, Kvasovskiy, 2017, p. 132).

These trends are expected, including in Ukraine. Today, it is not easy to create competitive facilities without considering them. When the war is over and competition in the domestic market intensifies, the number of projects focusing on quality from concept to implementation will naturally increase.

Before the full-scale invasion, the demand for land for residential development was high; since 2017, the market has gradually moved away from spot developments. Companies are focusing on constructing residential complexes (live-work-play estates), which own 10% (or more) of non-residential land and contain the essential elements necessary for living. Thus, in recent years, the capital market has seen a significant increase in the share of residential complexes with business and social infrastructure (Kobzan, Pomortseva, 2023).

When the conflict escalated, there was a massive movement of people from the Hochschule Mittweida

eastern and southern regions of Ukraine to the west. A fascinating question is whether the population will return. We can accurately predict that people will return to the big cities that were not destroyed. Businesses will rebuild the cities where they operate, and higher education institutions will start operating normally. State-owned and municipal enterprises will also resume their daily activities.

Surveys can be used to identify potential real estate buyers. It is worth noting important information about the image of potential buyers who are actively buying real estate on the market:

1. Lonely young people seeking independence;
2. Young families;
3. Pensioners saving money for real estate;
4. Creative people for use as a home and office;
5. Business people;
6. Interested persons;
7. Investors who want additional income from renting (Kobzan, Pomortseva, 2023);

In terms of commercial real estate, especially the office sector, there has been an active process of project development over the past few years.

It is not surprising that the total area of commissioned housing has decreased significantly during the large-scale military operations. Thus, in 2022, only 7.1 million square meters (18,300 private houses and 74,300 apartments) were commissioned, which is 38% less than in 2021. Investments in residential construction have also declined significantly (Kobzan, Pomortseva, 2023).

As a result, the volume of new construction in almost all regions has significantly decreased. Contractors mostly try to complete work started before the occupation and do not start new projects.

The war has put commercial and residential real estate construction on hold (except in some western regions). However, even during active hostilities, buyers prefer quality projects with developed infrastructure and housing.

For example, the invasion of Ukraine has increased the demand for business centres where landlords can create a comfortable working environment, provide an adequate level of service, and meet tenants' electricity and security needs without power outages. Currently, the office sector is risky for new development projects due to the unstable economic situation. However, once the war is over and business starts to grow, demand for office space is expected to increase.

Another factor that negatively affected the development of construction was a significant increase in the exchange rate, as well as high inflation, which reduced the purchasing power of the population while prices for construction projects increased.

In October-December 2022, construction companies faced new challenges. In order not to disrupt construction work, they were forced to either adhere to power outage programs or buy powerful generators. Some developers found it more profitable to suspend construction, which also contributed to the decline in (Fisunenکو, 2022, p. 111).

However, large-scale rocket and artillery attacks remain the most severe threat to the residential real estate market in many regions. As a result of active hostilities, 74.1 million

square meters of housing were destroyed or damaged as of 2022/9, accounting for more than 7% of the existing housing stock (Minfin, 2023).

The scale of the destruction is enormous. Available data alone indicate that it exceeds all new housing built in the last seven years. Given the intense rocket attacks in the last months of this year and the impossibility of calculating the damage in the occupied territories, the scale of housing destruction is likely to be even greater.

The war has made people cautious about making large purchases, especially housing. In the first months of the war, market participants did not have access to the State Register of Property Rights, which also hindered transactions in the housing sector; since May 2022, the register has gradually opened, and demand has begun to recover (Minfin, 2023).

However, given the uncertainty of the outlook physical and economic risks, many potential buyers and investors have taken a wait-and-see attitude, regardless of the region.

Now, what is happening to the real estate market today, in 2023?

First, it is a reformatting of the entire market. As a result, many experts believe that the primary market no longer determines housing prices but the secondary market, as before the significant invasions. Moreover, the value is determined by rents for existing properties, as real estate is the only instrument where people can invest and get at least some return.

Today, those who agree to invest in real estate are willing to invest with a return on capital (fixed value) of 5% per annum, which means a payback period of 20 years. In other words, after 20 years, the investment will be fully paid off, and the investor will receive an income equal to his or her initial investment and still own the apartment. It determines the present value of the property.

For example, if the rent for an apartment is UAH 10,000 per month, the value is $10000 \times 12 : 5\% = 240000$ UAH or approximately 65 000 USD (at some exchange rate on some date) (Minfin, 2023).

Investors accept such a low rate of return on capital because they still hope that the war will end, the market will pick up, and they will be able to earn more. They may resell their apartments or raise the rent.

Of course, the specific rental price depends on the property's location, whether it has been renovated, and the quality of the furniture, kitchenware, and plumbing. If the apartment is located in a residential complex with a good reputation among property owners and has been renovated, the rental price will be much higher.

The analysis shows that these rental prices are almost the same as in 2020, so the prices of apartments for sale have returned to almost the same level as before the occupation. Many real estate agents note this fact, and at first glance, it may seem strange. The prices of apartments were strongly influenced by the possibility of selling them to foreign investors, which is currently absent in Ukraine.

Unfortunately, the Ministry of Justice has not yet published data on the number of real estate transactions in 2023, only for 2022. However, the general trend is apparent (Table 2).

Table 2.

Number of transactions in the real estate market

Type of transaction/ year	Number of transactions, units.						Growth rate, 2022 to 2021, %.
	2017	2018	2019	2020	2021	2022	
Real estate (except for land plots)	437 082	371 327	481 013	463 286	540 850	182 809	-66,2
Alienation of non-agricultural land plots	211 479	218 441	224 795	275 976	374 312	172 300	-53,9
Alienation of agricultural land plots	0	0	0	0	84 336	74 645	-11,5

Source: compiled on the basis of data (Novakovska, Ishchenko, Skrypnyk, Stetsyuk, 2023, p. 133)

The results could have been better. Due to the war, the total number of transactions in 2022 alone was 66.2% lower than in 2021. In other words, buyer transactions in 2022 accounted for only a third of those in 2021.

This situation can be improved by transactions with land plots, primarily agricultural land. However, it is worth noting that the number of buyers of apartments and houses fell threefold. Indeed, the market has collapsed in quantity but has levelled off in value. Unfortunately, this trend is still ongoing, as is the war.

In August of this year, Ukraine expanded mortgage lending for various social groups to 7% (previously, according to the government program, military personnel, law enforcement officers, doctors, and teachers could get loans at 3%). Although the number of applications confirms the high demand, there is only reason to expect a significant improvement in the market once the war ends. In particular, according to the latest estimates, as of June 2023, just over 1,600 loans had been issued (Novakovska, Ishchenko, Skrypnyk, Stetsyuk, 2023, p. 138).

On the other hand, the situation in the country affects the availability of commercial real estate projects. It is necessary to liberalize financing in this area and create favourable conditions for companies working on commercial real estate projects. Otherwise, it won't be easy to open new facilities and create jobs, especially since legislative initiatives that allow for soft loans with a zero interest rate, unfortunately, do not apply to this type of activity.

Market conditions are the main factor affecting the intensity of real estate development. However, for the effective implementation of modern projects, it is essential to update industry standards, create a transparent legal system, and minimize corruption. We took data from the National Association of Realtors, and here is what we found out.

Experts from the National Association of Realtors (NAR) reviewed the 2021 U.S. International Residential Real Estate Transactions Report, published in early 2022, to identify investment changes in the overall U.S. real estate market due to the Russian Federation's large-scale invasion of Ukraine (Association of real estate specialists (realtors) of Ukraine, 2021).

Based on the recalculation results, the experts found that the decline in international real estate transactions had a minor direct impact on the US real estate market, as foreign buyers accounted for about 2% of existing real estate sales (Novakovska, Ishchenko, Skrypnyk, Stetsyuk, 2023, p. 135).

According to a report by experts, in 2022, the volume of real estate purchases by foreigners fell to its lowest level since 2011: 107,000 homes worth USD 54.4 billion were purchased by foreign buyers between April 2020 and March 2021, amounting to USD 1.96 trillion over the same period. This figure represents only 2.8% of the US\$1,960 billion (Novakovska, Ishchenko, Skrypnyk, Stetsyuk, 2023, p. 136).

According to Polish experts and analysts, the war in Ukraine has had a significant impact on the Polish economy and the functioning of the real estate market and, consequently, on the increase in investment flows. Logistical ties with Eastern markets have already been suspended, and the demand for labour to invest in real estate construction has increased significantly. It naturally increases employment opportunities for Polish citizens and gives a new impetus to socio-economic growth (Delo, 2023).

Thus, the relationship between military conflicts and the real estate market is quite complex. While wars hurt real estate prices, in some cases, they can also lead to increased demand. In addition, military conflicts have a significant impact on economic and social conditions, which can also affect the real estate market.

For example, the war in Syria has destroyed many buildings and infrastructure and claimed the lives of many residents. As a result, real estate prices in the country have fallen significantly (Delo, 2023).

However, in some cases, military conflicts lead to an increase in real estate prices. For example, after the war in Iraq, some areas previously controlled by insurgents became safe to live in, and new housing was built there. As a result, real estate prices in these areas rose.

In October 2022, the Ministry of Economy, in cooperation with the Ministry of Digital Transformation and Ukrfinzhytlo, launched the eOselya affordable housing financing program (Koba, 2022, p. 24).

The program offers mortgages at 3% per annum for military and law enforcement personnel, doctors, teachers and scientists. According to the Ministry of Economy of Ukraine, since the program's launch, 948 households have received preferential loans for the purchase of housing, totalling more than UAH 1.2 billion. However, the government needs help financing the available loans. The eHouse project has not yet justified itself, as only 0.5% of loans have been approved since October 2022 (out of more than 46,000 applications), and only a few dozen transactions have taken place in the primary market. Some improvements to the system (especially in terms of lending decision-making mechanisms and related financing) could significantly increase the number of real estate transactions, with at least 10% of them occurring in the primary market.

The programme also planned to expand the category of citizens eligible for mortgages at 7% per annum, but even those in important professions cannot get a loan due to lack of funds (Koba, 2022, p. 25).

Comparing all the stages analysed above, we can conclude that 2022 started with a strong momentum, and this trend could probably continue. Before the outbreak of war, the pace of orders for new housing remained at the level of 2021. In the first six weeks of the year, the total area of newly constructed housing reached almost a fifth of the future annual volume.

The decline in new supply occurred in almost all regions of Ukraine, with the exception of some areas. Construction declined the most in the east and south of the country, where housing commissioning fell by 70-90% year-on-year.

According to the materials of Hochschule Mittweida University Of Applied Sciences, it can be concluded that the starting point for managing real estate cycles is not the most accurate long-term forecast. This is because real estate cycles are very complex (Hochschule Mittweida, 2023).

It is difficult to predict the state of the property market after the war, but we can assume that the situation will be as follows. Once the State Register and the State Land Cadastre are fully restored, we may see housing prices fall in the east of the country and rise in the west as people leave the country. Due to the war, housing construction in Ukraine has partially stopped. Materials and work have risen sharply in price. There was no demand for primary housing. Ukrainians are not ready to invest in primary real estate at the moment. Prices quoted by buyers do not correspond to the real value. The number of purchase and sale transactions has dropped significantly since the start of the war.

If the war continues until 2024, the situation in the primary housing market will remain very difficult. In addition, the overall economic situation in Ukraine will deteriorate, and possible power cuts will result in a large number of development companies being unable to meet their obligations to creditors and entering bankruptcy proceedings. A large number of investors who have purchased housing by instalments or mortgages will not be able to repay their debts. The outlook for the Ukrainian property market today depends on developments related to the war. Demand on the property market is likely to shift significantly towards suburban properties and economic sectors. This trend will continue beyond 2023 (Koba, 2022, p. 27).

For a successful project, it is necessary to create a real estate portfolio that is as resilient as possible to the following cycles:

- Cyclical valuations;
- Good timing;
- High degree of diversification;
- High investor reliability;

So, if we talk about the real estate market after the war, we can expect a recovery in prices in the first place. This is due to the following factors (Table 3):

Table 3.

Reasons for price recovery	
Reason.	Contents
Psychological	We understand the war will be long, but we want to live for the present. We want to work normally, help the army, rest, raise our children and grandchildren, and not hope for an imaginary "reconstruction".
Buy cheap because of the war	Owners refused to lower prices and waited for prices to rise before renting out their homes. It led to a reduction in supply in the sales market.
Deferred demand	Buyers are postponing their purchases in anticipation of falling prices. However, prices for good properties (close to the metro, renovated and with quality amenities) are falling.
Loss of housing as a result of destruction in the frontline areas	It is not those who have lost their homes who buy them, but those who intend to rent them out to internally displaced persons who have money and can pay the rent.
The inability of ordinary citizens to invest in other instruments because there is simply no alternative for them	As many IDPs came to Kyiv to escape the rockets and find work, the demand for rental housing increased, and people started buying rental housing. Currently, IDPs are renting and are not ready to wait to complete new housing, and interest in new housing has dropped significantly.

Source: compiled by the author based on data from Zaslavska, 2023, p. 10.

As of the end of 2022, there are no clear trends in price dynamics in the housing market. On the one hand, construction costs are rising due to the destruction of some building materials factories, a complicated supply chain for raw materials, the devaluation of the hryvnia, and additional costs of operating during power outages. On the other hand, limited demand means that contractors cannot raise apartment prices significantly (Zaslavska, 2023, p. 10).

The situation on the secondary market is even more uncertain. This is due to the fact that owners prefer a wait-and-see attitude in order not to lose potential sales income in a falling market. However, where there is genuine interest, owners often make concessions to an already small number of buyers.

Conclusions. Based on the research conducted, it can be concluded that military conflicts and geopolitical instability have a significant impact on the property market. In such situations, property prices may fall, investment risks may increase, and the procedures for buying, selling and renting may become more complicated. However, despite the risks, investing in real estate under martial law may in some cases be profitable, as new opportunities may arise, such as the restoration of infrastructure and the reconstruction of destroyed buildings (Zaslavska, 2023, p. 12).

In order to reduce the risks of investing in real estate in such situations, it is advisable to pay attention to additional factors, such as the economic, security and political stability of the country, as well as the psychological state of people, their competence, experience and knowledge in the field of real estate and knowledge of the specifics of the real estate market in each region. Given that military conflicts can significantly change the real estate market,

investors should carefully analyse the situation and thoroughly research the relevant information.

Therefore, in order to successfully invest in real estate under martial law, investors should not only be prepared to take significant risks, but also analyse the local real estate market in detail, identify risks and opportunities, and develop new investment opportunities by diversifying their investment portfolio.

References

1. Rubel, G. A., & Samotoyenkova, O. V. (2020). Analysis of the dynamics, structure and activity of the real estate market in Ukraine, 22-33.
2. Karapetian, E. T., & Kvasovskyi, O. R. (2017). Analysis of the residential real estate market in Ukraine. *Finances, Banks, Investments: Scientific Bulletin*, (2), 125-134.
3. Samotoyenkova, O. V., & Olvinska, Yu. O. (2020). Economic statistics (pp. 152-167). Gulyaeva V. M.
4. Kobzan, S. M., & Pomortseva, O. E. (2023, April 19). Analysis of the real estate situation in Ukraine during martial law. Trends and perspectives. Archive Interconf. <https://archive.interconf.center/index.php/2709-4685/article/view/3110/3141>
5. Fisunenko, P. (2022). Systematization of factors affecting demand in the real estate market. (pp. 110-111).
6. (2023, September 25). The real estate market of Ukraine: what will happen to prices, supply and demand. Ministry of Finance. <https://minfin.com.ua/ua/credits/articles/rynok-nedvizhimosti-ukrainy-cto-budet-s-cenami-predlozheniem-i-sprosom/>
7. (2021, December 28). Report on international transactions with residential real estate in the United States. Association of real estate specialists (realtors) of Ukraine. Retrieved September 25, 2023, from <https://www.asnu.net/news/>
8. Novakovska, I. O., Ishchenko, N. F., Skrypnyk, L. R., & Stetsyuk, M. P. (2023). Investment opportunities in the real estate market in the context of global trends. *Scientific innovations and advanced technologies*, (7), 130-141.
9. (2023, August 18). What will happen to real estate prices: main trends and forecasts. Delo.ua. <https://delo.ua/business/shho-bude-z-cinami-na-neruxomist-golovni-trendi-ta-prognozi-422583/>
10. Koba, O. (2022). The impact of the war on the construction business of Ukraine. *Economy*, (10), 22-29.
11. (2023, September 7). *Macroeconomics*. Additional materials from Hochschule Mittweida for the study of the discipline. <https://app.luminpdf.com/viewer/64fe259ebfaf57397410f557>
12. Zaslavska, O. I. (2023). Problems and prospects of the functioning of the mortgage market of Ukraine in the conditions of martial law. *Scientific Bulletin of Uzhhorod University*, (1), 9-14.

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TOOLS FOR ANTI-CRISIS REGULATION OF THE ECONOMY IN UKRAINE UNDER MARTIAL LAW

Abstract. The study's relevance is due to the current military conflict in Ukraine, which has led to the need to consider effective instruments of countercyclical regulation in an economically unnatural environment. The problem lies in the difficulties of regulating the economy in times of war, where the state has to take into account the impact of the military front on the economic front. By analysing the views of scholars, the article highlights the importance of using fiscal and monetary policies together to achieve maximum efficiency in a military conflict.

The study aims to analyse and evaluate the key instruments of fiscal and monetary policy used in the context of martial law in Ukraine. The methodology used includes an analysis of the views of prominent scholars such as Stefan Kegebain, Christopher Mark Davis, Taras Marshalok, Yulia Leliuk, Marianna Bida, and Iryna Ruda. Who allows us to systematise information and identify optimal management strategies in an economically unnatural environment.

Thus, the paper identifies the importance of using fiscal and monetary policies in the context of military conflict and reveals the prospects for their application to stabilise the economy and ensure the effective functioning of the state in times of crisis.

Keywords: anti-crisis regulation, monetary policy, fiscal policy, crisis, military conflict, martial law.

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ІНСТРУМЕНТИ АНТИКРИЗИВНОГО РЕГУЛЮВАННЯ ЕКОНОМІКИ В УКРАЇНІ В УМОВАХ ВОЄННОГО СТАНУ

Анотація. Актуальність дослідження обумовлена сучасним військовим конфліктом в Україні, який став причиною необхідності розгляду ефективних інструментів антициклічного регулювання в економічно-неприродному середовищі. Проблема полягає у складнощах регулювання економіки під час війни, де державі доводиться враховувати вплив воєнного фронту на економічний. Аналізуючи погляди вчених, висвітлюється важливість спільного використання фіскальної і монетарної політики для досягнення максимальної ефективності в умовах воєнного конфлікту.

Мета дослідження полягає в аналізі та оцінці застосованих ключових інструментів фіскальної та монетарної політики в умовах воєнного стану в Україні. Застосована методика включає аналіз поглядів видатних вчених, таких як Стефан Кегебайн, Крістофер Марк Девіс, Тарас Маршалок, Юлія Лелюк, Маріанна Біда і Ірина Руда. Це дозволяє систематизувати інформацію та визначити оптимальні стратегії управління в економічно-неприродному середовищі.

Отже, робота визначає важливість використання фіскальної та монетарної політики в умовах воєнного конфлікту, а також розкриває перспективи їхнього застосування для стабілізації економіки та забезпечення ефективного функціонування держави під час кризових умов.

Ключові слова: антикризове регулювання, монетарна політика, фіскальна політика, криза, військовий конфлікт, воєнний стан.

Problem statement. Economic fluctuations are the natural essence of the economy, which the state seeks to control. In the context of cyclicity, regulating the economy is a

challenge for the country, as the need to mitigate and revive the flow of these cycles is associated with the fastest possible exit from the depression phase to the recovery phase, which guarantees economic growth and faster inflow of profits into the economic system. This task becomes more complicated when martial law is in effect, and the challenges increase. The military front and the economic front are one whole. Therefore, there is a need to use all possible tools to survive in an economically unnatural environment. Fiscal and monetary policy are among these tools.

Relevance of the chosen topic. Ukraine's current situation is shaped by the military conflict, which entails solving problems with the supply of weapons to the military front and providing the population of Ukraine with a stable currency and sound economic decisions. The joint use of countercyclical regulation tools is what makes it possible to unlock their maximum effectiveness.

Analysis of recent research and publications. Many prominent foreign and domestic scholars have studied this topic. According to the vision of Stefan Kägebein (Kägebein et al., 2022), Ukraine is proposed to revive the private sector and work with investors and donors. According to Christopher Mark Davis (Davis, 2016), the conflict in Ukraine has been influenced by the dynamics of the economic, technological, and military balance, which is affected by the economic war and the sanctions used to change it.

According to Taras Marshalok (Marshalok, 2019), the state implements the most effective regulatory measures. It is also worth noting that monetary policy is less resistant to economic transformations than fiscal policy. According to Yulia Leliuk (Leliuk, 2012), ensuring constant economic growth rates sufficient to generate financial resources needed for innovative investments, as well as to reduce uncertainty and increase the planning horizon of enterprises.

In the view of Marianna Bida and Iryna Ruda (Bida & Ruda, 2022), the impact of war is complex, and the negative consequences are synergistic. The war reduces direct investment, increases inflation, limits the state's financial capacity, contributes to debt growth, cuts jobs, and worsens the business environment.

Purpose of the article. The purpose of the article is to study the key instruments of fiscal and monetary policy used in the context of martial law in Ukraine, evaluate them, and consider the essence and basic principles of their application in a crisis.

Presentation of the main research material and results obtained. Economic cycles are a product of the economy. Any economy in the world lives from the stages of growth, peak to the stages of decline and depression. These processes accompany the economy's very existence (Marshalock, 2019). They are repeated from cycle to cycle. Each time, an expected fall is followed by an inevitable rise. One cycle replaces another, and the country's economy continues to exist and develop. Whatever the nature of these cycles, people are always looking for ways to manage them.

The most unpleasant moment in any cycle is the crisis. After the economy has overheated, the state regresses, and rapidly falling indicators only confirm that the upcoming recovery will be difficult. However, as the German philosopher F. Nietzsche said: "What does not kill us makes us stronger". Therefore, science has found ways to adapt to such developments over time. As a result, no solution was found to overcome the cyclicity. However, it was found how to influence the flow of these cycles. In this way, counter-cyclical economic regulation or simply counter-cyclical policy emerged. Thanks to this policy, such

unpleasant cycle phases as recessions and depressions do not cause devastating consequences. In general, counter-cyclical policies are used to mitigate the transition from one peak to another. Leading countries actively implement these policies, thus protecting households and businesses from hard times.

Evaluating the effectiveness of government actions in a military conflict and improving them further can save lives and protect the state.

It is advisable to use the concept of anti-crisis policy rather than counter-cyclical policy because, in a military conflict, Ukraine will hardly be concerned about the economy overheating (Bida & Ruda, 2022). All the potential is spent on maintaining and returning to the military performance of the economy, as well as smoothing out any unpleasant sharp downturns.

One of the peculiarities of such economic regulations is that it is only possible to copy the state policy of another country partially. Some elements of counteraction may be ineffective for different countries. Each person is unique and inimitable. Every state is special and unique. Every economy is unique. All countries have developed in different geographical regions, climatic zones, and historical events, with unique cultures and population structures, different forms of government, political systems, a specific vector of political development, and many other unique factors. All this has shaped the countries as they are today. Therefore, the actions taken to regulate one country's economy cannot be used without changes to regulate another country's economy, even under the same crisis conditions. As a result, any imitation of global practices must be adapted to domestic realities. As a result, the policy of anti-crisis economic regulation has its own peculiarities in each country, including Ukraine.

Ukraine is a young state in terms of the length of time that countries have been in existence. The introduction of a large number of new acts and regulations and changes to existing ones to ensure a comfortable existence on its territory in compliance with its laws; studying the patterns and effectiveness of certain policies; establishing processes for their implementation and control – all of the above states that Ukraine is at the stage of formation, development, which symbolises the stage of trial and error.

The development of Ukraine's economy is graphically depicted in Figure 1.

According to the World Bank, as shown in Figure 1, we can see that there is some cyclicity in the Ukrainian economy. However, the business cycles are not clearly defined. The reason for this is the coincidence of the GDP decline with external economic and domestic political factors. These include the global financial and economic crisis of 2008-2009, the Revolution of Dignity, the armed intervention of the Russian Federation in Ukraine, followed by the annexation of Crimea and the occupation of Luhansk and Donetsk regions; the global COVID-19 pandemic and Russia's large-scale invasion of Ukraine. These factors are followed by recession, which results in crisis and depression. Mitigating the downward cycle and accelerating the transition to the phase of economic recovery is the main goal of anti-crisis regulation of the economy.

Monetary policy is aimed at short- and medium-term economic changes. In the longer term, it needs to be adjusted. Monetary policy is conducted by the National Bank of Ukraine (NBU), which makes decisions independently without government interference. However, coordination between the NBU and the Verkhovna Rada of Ukraine (VRU) will help to harmonise actions and minimise peaks in economic cycles. Monetary policy instruments include laws, decrees, resolutions, and orders related to the country's monetary and foreign

exchange system. That ensures an optimal level of inflation that supports the employment rate.

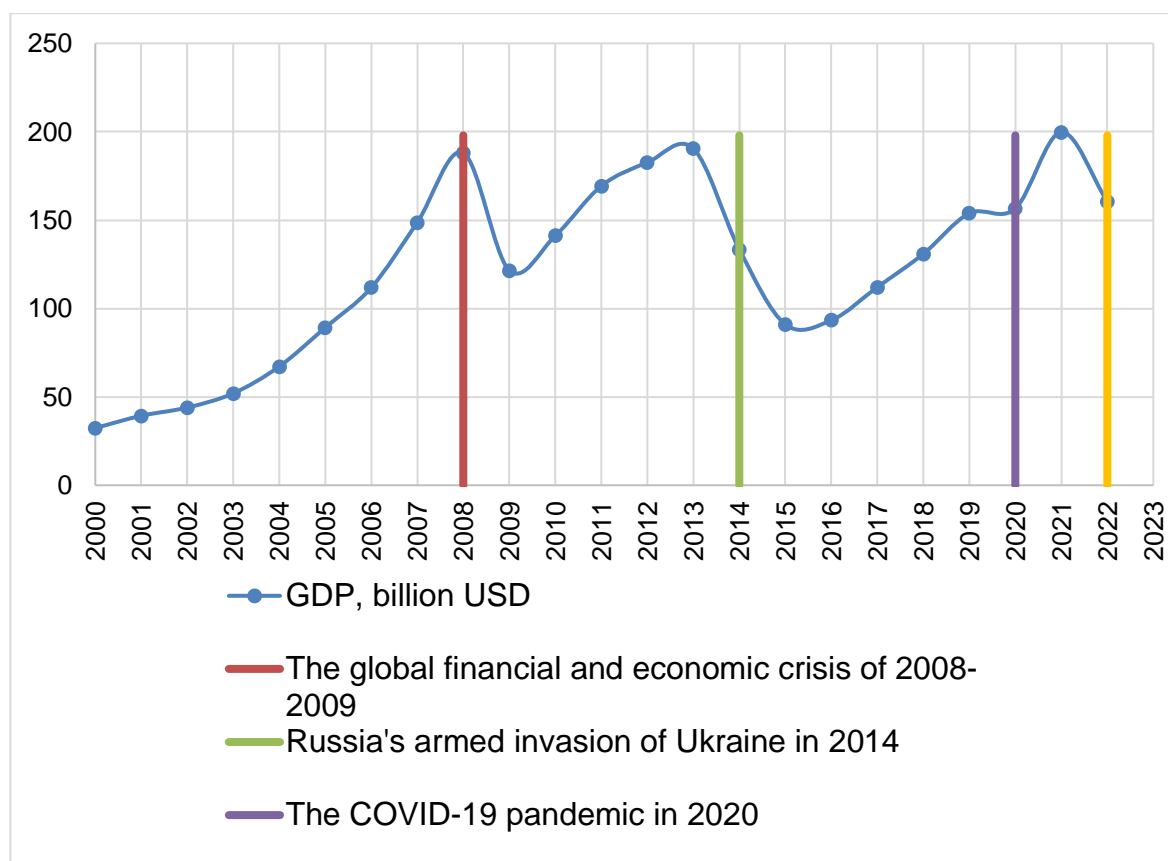


Figure 1. Ukraine's GDP in 2000-2022

Source: compiled by the authors based on (World Bank open data: Ukraine, n.d.).

The government controls fiscal policy, and changes in revenues and expenditures are set out in the annual budget, making fiscal policy effective in the long run and less mobile than monetary policy. Parliament "injects" finance so that output does not decline while stimulating aggregate demand in a certain way to ensure an appropriate level of employment. In this way, fiscal policy is designed to fight imbalances and inflation in the face of budget deficits and to find funding for social programs.

Great Depression of 1928-1933 proved self-regulators' inability to cope with economic shocks (Marshall, 2019, p. 66). At this time, the name John Maynard Keynes became known, and who revolutionised economic thinking. His economic policy was based on stimulating aggregate demand with the help of the state. In crises, government orders would ensure full population employment, and additional financial support would close the gaps in private demand. Governments' activities in the fiscal policy field ensured the stabilisation of the socioeconomic environment during the financial and economic crisis (Marshall, 2019, p. 68).

In economic science, there are two models of fiscal policy management: liberal and socially oriented. Developed countries have had a long time to be considered developed. At different historical stages, politicians preferred one goal and instrument of economic

regulation (Pyrch, 2010, p. 216). Therefore, applying a particular model depends on the time passed by the country. The most prominent representative of the liberal fiscal policy instrument is the United States, while Sweden is the representative of the socially oriented one.

Ukraine is more committed to a socially-oriented fiscal policy model. It is precisely because our country follows this model that it experienced a milder, faster economic downturn in 2022 than if Ukraine had followed a liberal fiscal policy management. After all, open economies with a low level of economic control are usually more susceptible to economic crises than countries with a clearly defined discretionary model of regulating the economic space (Marshalllock, 2019, p. 69). Because of this, the United States is ahead of other countries in economic development, but it pays the price regarding susceptibility to crises.

First of all, during martial law in Ukraine, tax privileges were introduced for entrepreneurs. The progressive form of taxation was simplified to a flat tax. Thus, the simplified taxation system (STS) for individual entrepreneurs of the 1st and 2nd groups was completely exempt from taxes during martial law. On the tax side, the excise tax rate on fuel was reduced to zero, and VAT was cut from 20% to 7%. The payment of land tax and land rent in the territories where military operations are taking place or in the territories temporarily occupied by Russian troops has been canceled. In this regard, an operational list of territories is being maintained where the minimum tax liability and environmental tax will not be charged in 2022-2023. At the beginning of the invasion, VAT, excise, and import duties were canceled (Marchak et al., 2022; Taxes in time of war, n.d.).

Consequently, all the types mentioned above of taxes were reduced or canceled. Thus, the state has abandoned basic subsistence finance to allow all businesses to operate. The government has simplified some of the mandatory control and reporting processes. Reducing the number of stages and processes has made it easier to become a sole proprietor, reducing additional bureaucracy and increasing the number of sole proprietors who pay taxes without hiding in the shadows. The government has used the tactic of increasing the number of contributions versus the contribution amount.

During the six months of the full-scale war, registering new businesses continues to show a positive recovery trend that started in April 2022. The number of registered sole proprietors increased from 15,000 in April to more than 20,000 in August, as shown in Figure 2.

In total, in August 2022, the rate of registration of new businesses in the context of a full-scale war was 114% compared to the same period in August 2020 and 71% compared to the same period in 2021 (Ukrainian Business in the Context of a Full-Scale War: Six-month Status Report, 2022).

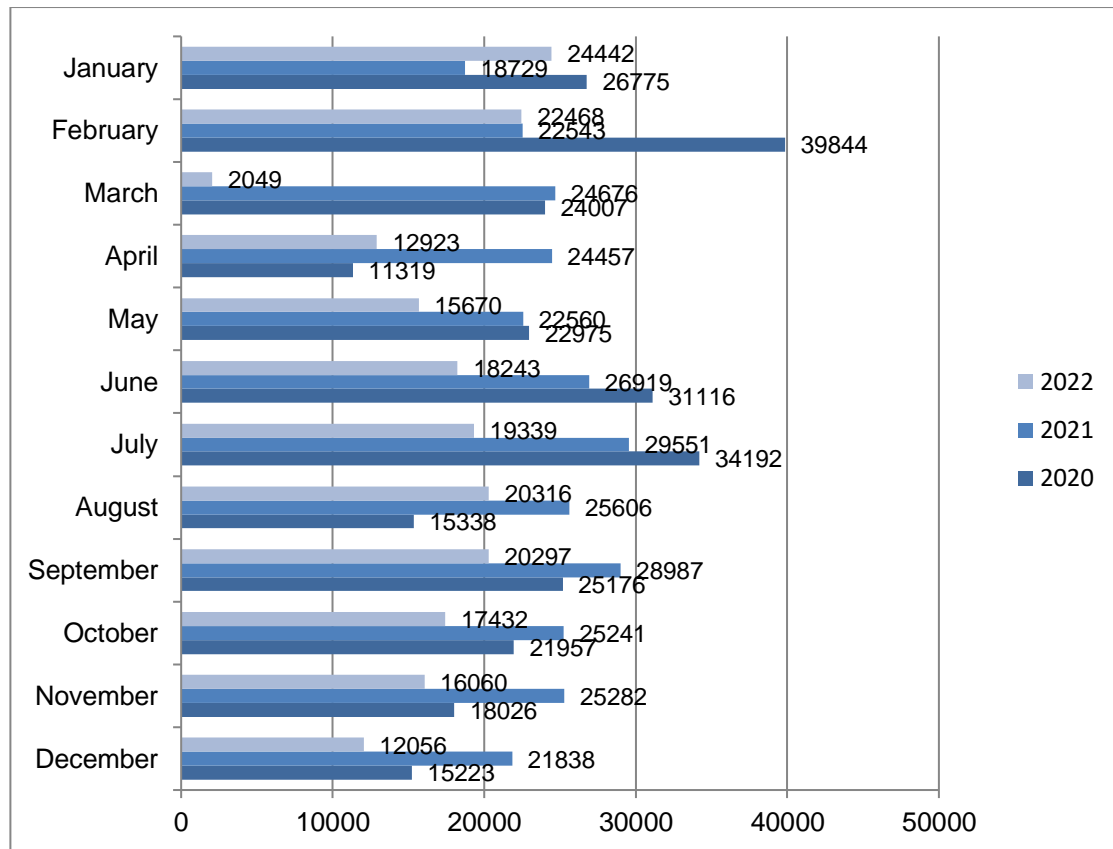


Figure 2. Dynamics of registration of individual entrepreneurs in 2020-2022
 Source: compiled by the author

The war has intensified the closure of businesses in Ukraine: on average, 13,000 business entities (BEs) were closed every month, which until mid-July exceeded the number of newly registered BEs. Also, for the first time in 6 months, in August 2022, the number of new businesses exceeded the number of closed ones by two times, indicating a recovery in business activity and a change in trends in the business environment.

As for the transfer element of the fiscal policy, as mentioned above, the state refrained from cutting the country's budget and further expanded the list of persons eligible for additional financial assistance, including internally displaced persons (IDPs). Adults receive UAH 2,000 per month; the government also helps with housing costs.

The number of people who fled the country at the beginning of the military conflict is estimated at millions. Most of them are of working age, meaning the pension fund does not receive enough funding. At the same time, most pensioners stayed behind, which put a considerable strain on the fund and reduced the possibility of accumulating funds there.

Unlike fiscal policy, monetary policy affects the country's economy not through goods and services (the goods market) but through the money market. The NBU has adopted a discretionary policy of active intervention in the national economy. Ukraine found itself in a difficult situation: production at enterprises began to decline with the start of the large-scale invasion of Ukraine by the aggressor country, as shown in Figure 1, which would normally have led to the application of a "cheap money" policy, but inflation also appeared in the economic space at the same time, as shown in Figure 3. However, this process did not limit the monetary policy space.

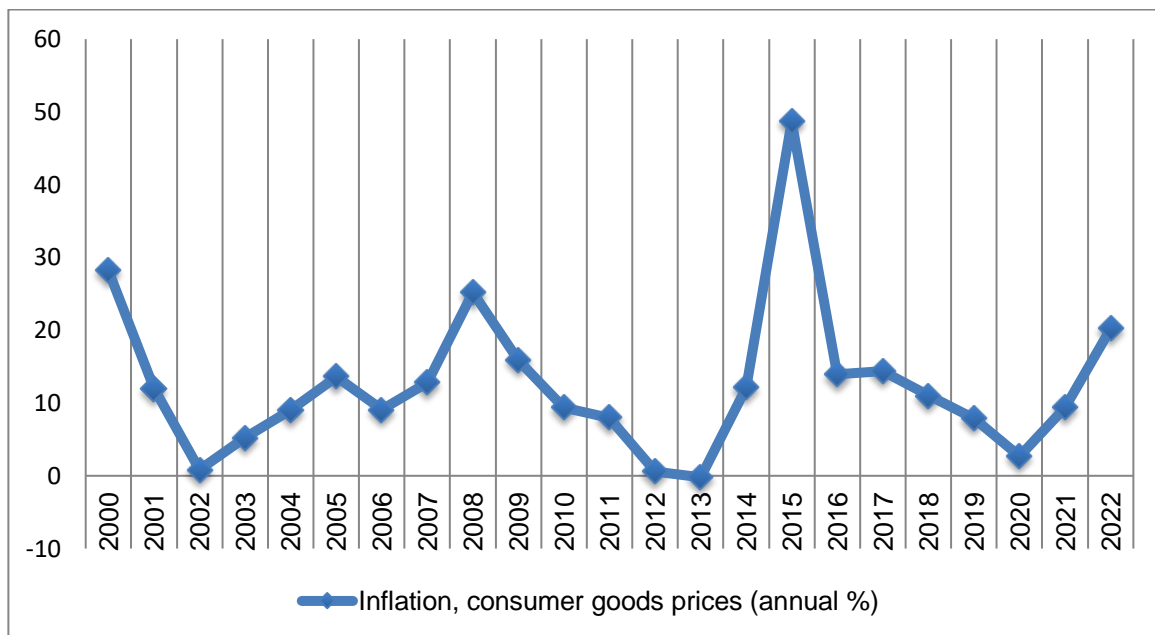


Figure 3. Inflation in Ukraine in 2000-2022

Source: compiled by the authors based on (World Bank open data: Ukraine, n.d.).

The NBU's first decisive action was to remain cool and stable. These actions did not lead to an escalation of panic among citizens rushing to banks to withdraw cash from their bank accounts. Ukrainians were afraid of a repeat of the situation with the collapse of the banking sector, as it happened after the collapse of the USSR. In this case, prudent public inaction ensured stability in the eyes of the citizens. Thus, after the pace of cash withdrawals stopped due to the emotional shock, the central bank raised the key policy rate by 15% on 03 June 2022, as shown in Figure 4. The key policy rate reached 25%, which meant decreased consumer and investment spending and increased savings. The money supply also increased from 12% in 2021 to 20.8% in 2022, as shown in Figure 5. Monetary agents began to invest their money. Thus, banks began investing in certificates of deposit (UAH 212.9 billion in 2021 to a record UAH 457.5 billion in 2022), which increased the level of funds available to the central bank.

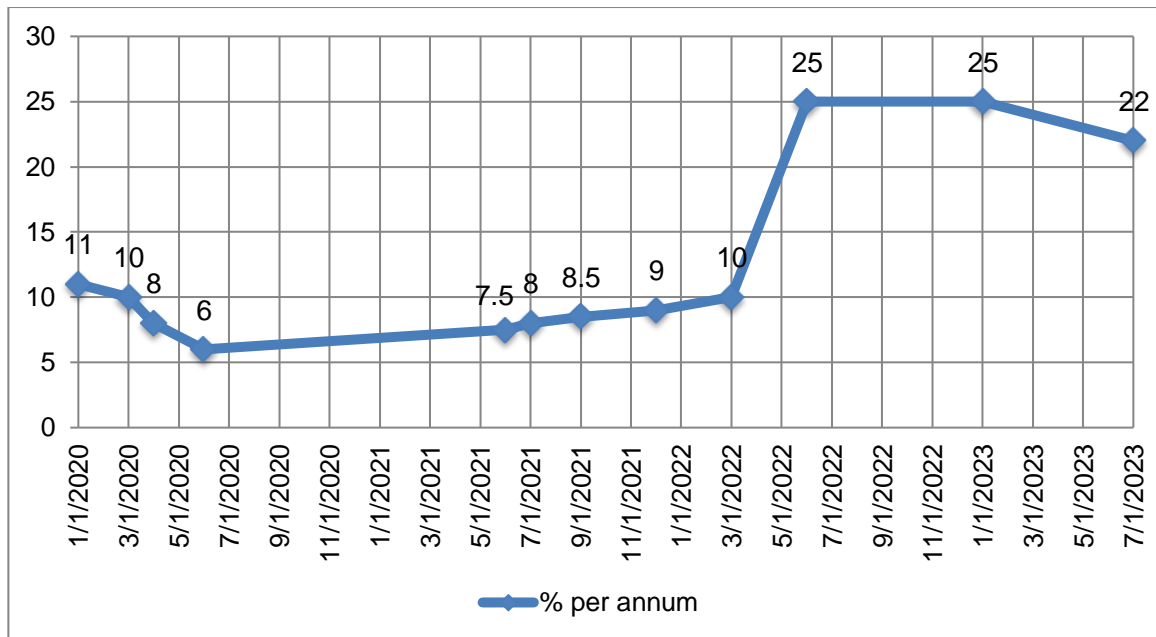


Figure 4. Interest rate in Ukraine in 2020-2023

Source: compiled by the authors

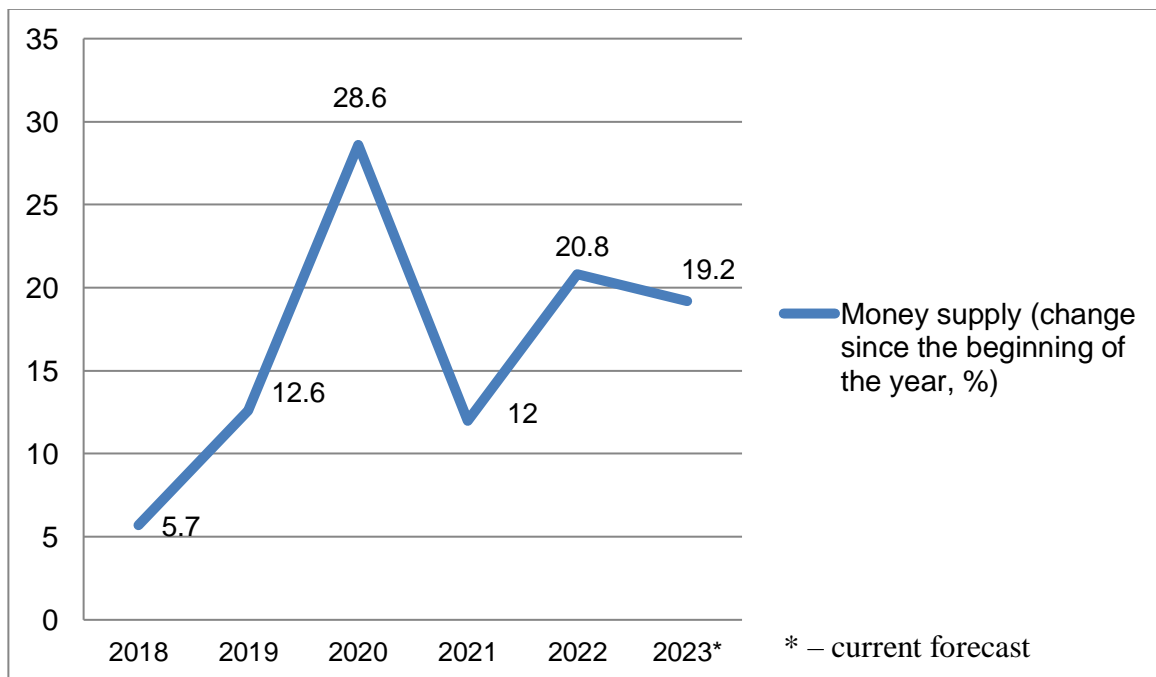


Figure 5. Money supply in Ukraine in 2018-2023.

Source: compiled by the authors

It should be understood that in times of war, the country needs funds to maintain the army's combat capability and provide it with everything it needs. At such times, international institutions are usually asked to provide a loan. However, the NBU was able to provide UAH 8 billion to the budget as early as 1 March 2022 through a domestic loan – the issue of military government bonds. That means that Ukraine had the resources to support its policy on the

sixth day of the military conflict. A year later, the state raised more than UAH 200 billion to the state budget in 2022 through the issue of military domestic government bonds.

These actions of the NBU confirmed its commitment to its mandate to ensure price and financial stability. The steady decline in inflation and support for the economy's adaptation to a full-scale war have given businesses and households confidence in the NBU's ability to balance the situation. Thus, the level of uncertainty was reduced (Citizens' Assessment of the Situation in the Country, 2023). The achievement of the goals of stabilising the economic situation in the country allowed businesses to continue planning their activities. That is, to decide whether to carry out investment activities in the country (Leliuk, 2012, p. 35).

Conclusions. Even the most effective and time-tested anti-crisis tools must be questioned over time, adapting to the realities of the world. Moreover, every country that follows the experience of others should be adaptive. Combining instruments and coordinating the actions of each instrument makes it possible to perform their functions as efficiently as possible, especially when security, independence, unity of the population, and economic space depend on each decision to use a particular instrument.

The article analyses the monetary and fiscal policy instruments used in Ukraine under martial law and discusses the essence and principles of their application. The Government of Ukraine has applied all key anti-crisis policy instruments: changes in the NBU interest rate and the money supply; the Government has redistributed the budget in favor of transfers and subsidies, reduced or canceled certain types of taxes, and simplified the system of their calculation. These policies are used in depressions to boost business activity and increase aggregate demand.

Based on the above facts, monetary and fiscal policies in Ukraine during wartime were coordinated and had the same goals. One of the key factors in their effective operation was the support of Ukraine's Western partners. Thanks to the material and financial support of the Baltic States, Poland, Germany, the United Kingdom, the United States, and other allied countries, Ukraine could withstand the consequences of the military conflict with Russia and put up a worthy fight.

Anti-crisis measures are the norm to overcome crises and bring the national market economy to its next phase. However, using policies to regulate the market economy during an artificially created crisis is unique. Assessing each of them is more rational from the perspective of a longer period. At the moment, the main criterion for their effectiveness is the level of public confidence in the authorities (Citizens' Assessment of the Situation in the Country, 2023) that used these instruments. In general, these assessments increased positively during the large-scale invasion, indicating the courage of the government's actions to meet the challenges of the day and maintain physical and economic security.

References

1. Bida M., Ruda I. (2022) Economic and financial consequences of war in Ukraine: analysis of development scenarios. *Financial Internet Quarterly* 18 (3), pp. 88–101. Retrieved from <https://www.econstor.eu/bitstream/10419/266911/1/1310.pdf>
2. Citizens' Assessment of the Situation in the Country, Trust in Social Institutions, Politicians, Officials and Public Figures, Attitudes to Certain Government Initiatives (July 2023). (2023, 26 July). Razumkov Centre. <https://razumkov.org.ua/napriamky/sotsiologichni-doslidzhennia/otsinka-gromadianamy-sytuatsii-v-kraini-dovira-do-sotsialnykh-institutiv-politykiv-posadovtsiv-ta-gromadskykh-diiachiv-stavlennia-do-okremykh-initsiatyv-organiv-vlady-lypen-2023r> [in Ukrainian]

3. Davis, C. M. (2016). The Ukraine conflict, economic–military power balances and economic sanctions. *Post-Communist Economies*, 28(2), 167–198. Retrieved from <https://doi.org/10.1080/14631377.2016.1139301>
4. Inflation report. July 2023. (2023). National Bank of Ukraine, 45-46. Retrieved from https://bank.gov.ua/admin_uploads/article/IR_2023-Q3.pdf?v=4 [in Ukrainian]
5. Kägebein, S., Akulich, A., Hristova, P., Brodersen, P., Metz, A., Harms, M., & Guhde, S. (2022). Rebuild Ukraine. Retrieved from https://www.ost-ausschuss.de/sites/default/files/page_files/2022-10-12%20PM%20Ukraine_Dossier%20Recovery%20Ukraine.pdf
6. Key policy rate of the National Bank of Ukraine (n.d.). National Bank of Ukraine. Retrieved from <https://bank.gov.ua/ua/monetary/archive-rish> [in Ukrainian]
7. Leliuk, Y. M. (2012). Effective countercyclical policy as a factor of avoiding institutional and technological traps. *Economy and State*, (5), 34-36. Retrieved from http://www.economy.in.ua/pdf/5_2012/11.pdf [in Ukrainian]
8. Marchak, D. M., Markuts, Y. I., & Marshalok, T. Y. (2022). Wartime taxes. What should we expect from the changes in the tax system adopted since the beginning of the war? *Vox Ukraine*. Retrieved from <https://voxukraine.org/podatky-voyennogo-chasu-chogo-slid-ochikuvaty-vid-zmin-u-podatkovij-systemi-uhvalenyh-z-pochatku-vijny> [in Ukrainian]
9. Marshalok, T. Y. (2019). Features of state policy in the field of countercyclical regulation of the economy - theory and methodology. *Regional aspects of the development of productive forces of Ukraine*, (24), 63-74. Retrieved from <http://dspace.wunu.edu.ua/bitstream/316497/38297/1/%D0%9C%D0%B0%D1%80%D1%88%D0%B0%D0%BB%D0%BE%D0%BA.pdf> [in Ukrainian]
10. Pyrch, M. I. (2010). Evolution of countercyclical state policy in developed market economies. *Scientific Bulletin of the National Forestry University of Ukraine*, (23), 210-221. Retrieved from https://nv.nltu.edu.ua/Archive/2010/20_3/216_Pyrcz_20_3.pdf [in Ukrainian]
11. Taxes during the war. (n.d.). Territorial bodies of the State Tax Service in the Ternopil region. Retrieved from <https://tr.tax.gov.ua/media-ark/local-news/print-581820.html> [in Ukrainian]
12. Ukrainian business in a full-scale war: Six-month status analysis (2022, 8 September). *Diia.Business* - Home page. Retrieved from <https://business.diia.gov.ua/cases/novini/ukrainskij-biznes-v-umovah-povnomasstabnoi-vijni-analitika-stanu-za-sist-misaciv> [in Ukrainian]
13. World Bank open data: Ukraine. (n. d.). The World Bank. Retrieved from <https://data.worldbank.org/country/ukraine>

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IMPROVING CORPORATE MANAGEMENT USING THE LEAN CONCEPT: INTEGRATION AND OPTIMIZATION OF BUSINESS PROCESSES

Abstract. The relevance of research on the LEAN concept is determined by the need for organisations to constantly adapt in the modern competitive environment, optimise business processes and use resources efficiently, which is becoming an important condition for maintaining competitiveness and meeting market requirements. The purpose of the article is to analyse the possibilities and formulate proposals for integration and optimisation of business processes at Ukrainian enterprises using the LEAN concept. For this purpose, the task was set to analyse the essence of the concept, study the current state of domestic companies in the context of lean production, and propose a plan for integrating the LEAN

concept into the company's activities. Methods of analysis and synthesis, deduction and induction, analogy, argumentation, graphic methods were used.

The article analyses the LEAN concept, focusing on its principles and methodology and their application to optimise business processes and improve the efficiency of enterprises. Evaluated the importance and benefits of implementing the concept of lean manufacturing at enterprises in the context of modern competition. Based on the analysis developed specific advice on the integration of the LEAN concept into the business processes of Fort Post LLC. The aim of the proposed plan is to facilitate the implementation of LEAN with maximum efficiency and minimise possible difficulties for the company.

Keywords: LEAN concept, lean manufacturing, business processes, corporate management, strategic management.

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ВДОСКОНАЛЕННЯ КОРПОРАТИВНОГО УПРАВЛІННЯ ЗА ДОПОМОГОЮ КОНЦЕПЦІЇ LEAN: ІНТЕГРАЦІЯ ТА ОПТИМІЗАЦІЯ БІЗНЕС-ПРОЦЕСІВ

Анотація. Актуальність дослідження концепції LEAN визначається необхідністю для організацій постійно адаптуватися у сучасному конкурентному середовищі, оптимізувати бізнес-процеси та ефективно використовувати ресурси, що стає важливою умовою для збереження конкурентоспроможності і задоволення вимог ринку. Метою статті є аналіз можливості та формування пропозицій щодо інтеграції та оптимізації бізнес-процесів на українських підприємствах з використанням концепції LEAN. З цією метою поставлено завдання проаналізувати сутність концепції, вивчити поточний стан вітчизняних компаній у контексті ощадливого виробництва та запропонувати план інтеграції концепції LEAN в діяльність підприємства. Використано методи аналізу і синтезу, дедукції та індукції, аналогії, аргументації, графічні методи.

У статті проаналізовано концепцію LEAN, зосереджуючись на її принципах та методології і їх застосуванні для оптимізації бізнес-процесів та покращення ефективності підприємств. Оцінено важливість і переваги впровадження концепції ощадливого виробництва на підприємствах в умовах сучасної конкурентної боротьби. На основі проведеного аналізу розроблено конкретні поради щодо інтеграції концепції LEAN в бізнес-процеси ТОВ «Форт-Пост». Мета запропонованого плану – сприяти впровадженню LEAN з максимальною ефективністю та мінімізацією можливих труднощів для компанії.

Ключові слова: концепція LEAN, бережливе виробництво, бізнес-процеси, корпоративне управління, стратегічне управління.

Problem statement. In today's competitive market environment, businesses must constantly optimise their operations to achieve a high level of efficiency and competitiveness.

One of the key improvement strategies is the implementation of the LEAN concept aimed at efficient management of business processes and optimisation of resource use.

However, the implementation of the LEAN concept encounters some difficulties and challenges. Among them are the unconsciousness of staff about the basic principles of LEAN, lack of readiness of organisational structures for change, inefficient integration of LEAN into the existing corporate culture, and the lack of a proper management approach to implementing the concept.

Therefore, there is a relevant need to research and develop strategies for the successful implementation of the LEAN concept in enterprises of various industries, taking into account the above problems and ways to overcome them.

Relevance of the chosen topic. Integration and optimisation of business processes in today's business environment is extremely important for several reasons. In a world of intense competitive pressure, organisations must constantly change and improve to stay competitive. LEAN makes it possible to achieve this through effective process optimisation. Ensuring maximum efficiency and optimising the use of resources (time, money, employees) are critical tasks for any organisation. LEAN enables efficient organisation and use of these resources.

To summarise, improving corporate governance using the LEAN concept is a topical task, as it allows organisations to optimise their business processes, increase resource efficiency, and adapt more quickly to changes in the competitive environment and customer requirements.

Analysis of recent research and publications. One of the effective and well-known management methodologies is the LEAN management concept aimed at optimising the functioning of production enterprises and eliminating all possible losses. LEAN management takes into account the involvement of each employee in business optimisation and is targeted at meet the needs of consumers. This approach was first described by J. Krafcik back in the 1980s. Subsequently, theoretical aspects and a methodology for implementing the concept of lean manufacturing at enterprises were developed. For example, J.P. Womack and D.T. Jones describe in detail the main approaches to implementing lean manufacturing, including methods, tools and key principles of this management concept. Ukrainian scientists such as O. Denysiuk, O. Skliarenko, N. Vasylenko, O. Ryzhenko and others have also studied the implementation of the lean production concept, its tools and methods.

Purpose of the article. The purpose of this study is to analyse the possibility and formulate proposals for the integration and optimisation of business processes at Ukrainian enterprises using the LEAN concept.

To achieve the research purpose, the following tasks have been set:

- analysis of the LEAN concept;
- study of the current state of domestic organisations;
- planning the integration of the LEAN concept into practical activities;

Presentation of the main research material and results obtained. The LEAN concept is an innovative approach to the organisation of business and management systems aimed at achieving maximum efficiency, ensuring high product quality and meet the needs of

customers.

The enterprise management system is a set of tools that includes planning, implementation, formulation of policies, practices, management of processes and procedures used in the development, implementation and execution of business plans and strategies, as well as all related management activities.

The model of the management system is as follows (Figure 1):

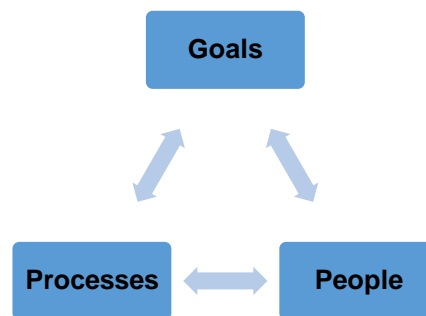


Figure 1. Model of the management system

Source: Materials from Hochschule Mittweida

The Goals section defines the company's long-term development strategy (where are we coming from?). Reflects the current state of the business and the desired result (where do we plan to go?). If the goals of the employees and the company are the same, it encourages them to work effectively together to achieve these goals. If the goals are unknown to employees, their performance decreases. If goals are not clearly defined, this can lead to premature process optimisation.

The Processes section defines the actions that need to be taken to achieve the goals. It addresses the questions: what exactly needs to be done to achieve the goals and how to solve the tasks.

The People section focuses on the main aspect, and more specifically, who is able to move towards the company's common goals. It considers what joint processes and efforts can help employees achieve their goals.

The business system has the key elements shown in Figure 2.

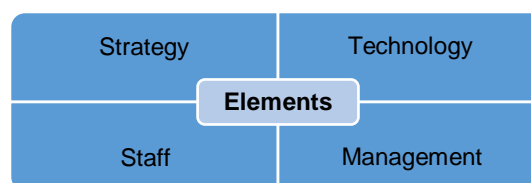


Figure 2. Key elements of a business system

Source: Materials from Hochschule Mittweida

Strategy should be the basis for creating a business system, not the other way round. Attempting to build a business system on the basis of inefficient business processes leads to failure. A strategy is a well-grounded programme for organising a business in the context of four main areas: competitive advantage, organisational transformation, financial optimisation
Hochschule Mittweida

and operational improvement. Technologies include various methods and processes for achieving a certain result in a defined field of the system's activity. It is essential that technologies transform available resources into desired results. When developing technologies, external and internal factors and available resources must be taken into account and adjustments made to achieve maximum efficiency. Staff is a key factor in the implementation of business system technologies. It is important to select the right staff and provide the necessary training. Management must ensure that the technology is functioning properly at the business system level.

Moving on to the discussion of the LEAN concept, it comes down to an important aspect of management, and more specifically, the optimisation of business processes. LEAN provides unique tools and methods aimed at ensuring the highest level of efficiency in all areas of the enterprise.

Going deeper, the LEAN concept is based on the important principles of optimising productivity and quality, reducing costs and using resources efficiently. This is reflected in the detailed analysis and improvement of every step of the production process, as well as the management of material and information flows.

An important aspect of the LEAN concept is underlining the role of each employee in the organisation. All employees play an important role in achieving a common goal, and more specifically, the best possible result for the customer and the company. LEAN provides tools for engaging and motivating staff, creating a dynamic and productive team atmosphere.

The concept of Lean Production originated at Toyota and is based on reducing production cycle times by eliminating losses. Lean Production involves every employee in optimising business processes and maximising market orientation.

The concept of Lean Production began to take shape in the 1950s under the leadership of Taiichi Ono as one of the components of production optimisation within the JIT concept. At that time, Japan was experiencing the consequences of the war but needed new cars. However, the demand for cars was not so great as to fully utilise production capacity, unlike Ford. Therefore, the Japanese had to create different car models in the environment of low demand for each model and learn how to work efficiently. This was an important task, as efficiency was considered in terms of mass production (A Brief History of Lean, n.d.)

The main goals of Lean Production in the field of logistics include:

- reduced labour costs by almost half;
- reduced production and warehouse space;
- reduced development time for new products;
- provide reliable supply of products to customers;
- achievement of the highest quality at the lowest cost;

Key aspects of achieving logistics goals using this concept include (Perlyt, 2019):

- reduced the time required to prepare and complete the process;
- minimum production cycle time;
- quality control at all stages of the production process;
- optimisation of overall performance;
- cooperation with reliable suppliers;

- continuous availability of technical equipment and high quality of its maintenance and repair;
- adequate training of middle and lower-level staff;
- establishing partnerships with reliable suppliers;

It should be noted that the main principle of this concept is the rational and optimal use of potential of employees. The staff and the entire team must adhere to the basic principles of Lean Production in their work. This concept provides effective approaches to ensure that an enterprise can maintain its global competitiveness by creating comfortable working conditions for its staff and continuously improving their skills, as well as ensuring safe and high-quality working conditions.

The basic principle of Lean Production is fast, efficient and high-quality satisfaction of customer needs. Comparing the traditional and lean production models in terms of costs and profit, the philosophy of both systems can be presented as follows (Lean management, 2021):

1. Traditional system: costs + profit = price;
2. LP: price - costs = profit. People are the most valuable resource.

The benefits of applying this concept include:

- decline in inventory levels (no warehouses, minimal stock on the shelves, all stock at workplaces);
- cooperation with reliable suppliers;
- reduction of logistics costs and production cycle time by eliminating unnecessary operations (warehousing, waiting in the production cycle).
- The disadvantages of this system include:
- the need for highly qualified logistics managers;
- significant dependence of the company's business continuity on the reliability of suppliers.

The tools of the Lean manufacturing concept include the following methods (Veres, p.235; Ryzhenko O.):

- 5S system is organising the workspace, maintaining order, keeping it clean, setting standards and continuous improvement;
- Kaizen is a method of continuous improvement and process optimisation;
- Asaichi is a system based on daily meetings to manage all aspects of the enterprise;
- PDCA is a method aimed at identifying the root cause of a problem and developing a strategy to eliminate it;
- Standardised work is a method for identifying and consolidating best practices for operations for stable processes and quality results;
- SMED is a method of quick changeover and re-equipment of equipment in less than 10 minutes;
- Kanban is a system for controlling the supply chain in production, but not an inventory service;

- TPM is the general maintenance of equipment and processes;

Just-in-time method (JIT) is one of the key elements of the LEAN concept and plays a significant role in improving the business processes of organisations. This method is aimed at optimising the production process and inventory management.

The main idea of the JIT method is to have the right resources, components and materials in the right quantity, quality and compliance with standards, ensuring that these needs are met at the right time, and in no case earlier. This means that the company receives the necessary resources without excessive inventory, which avoids cost overruns and unnecessary freezing of capital.

Thus, the concept of lean manufacturing (LP) points to the need to apply innovative production methods and systems, moving away from traditional mass production. This new system promotes better information sharing, teamwork and more efficient use of raw materials, which in turn contributes to the development of logistics, in particular, recycling logistics. However, the main criterion that unites all these aspects is continuous improvement in all stages of the production process. This improvement can be compared to immunity, as mistakes made are no longer repeated, which gives this system its unique character. In other words, this is not just a new approach to production management, but a real fundamental transformation of economic paradigms and production.

There are two approaches to implementing lean manufacturing. The first is to use a set of tools, such as 5S, Kanban, Poka-yoke, Value stream mapping, Total productive maintenance, Gemba, Production flow analysis, JIT, and others. These tools can compete with each other in practical application. The second approach is known as the Toyota Way. This method is based on improving the production flow and smoothness of work, with efficiency achieved through the proper functioning of the entire system, rather than by cutting costs.

Enterprises can choose one of these approaches. The first approach involves trying to achieve improvements by changing certain parts of the process without transforming the entire system. The second approach, which involves fundamental changes to the system, can be costly, as it requires the exchange of scientific and technical knowledge, engineering, the purchase or re-engineering of machinery and equipment, product quality improvements and reorganisation of the enterprise.

It is important to note that using only the first approach will not bring the desired results, as introducing individual methods without transforming the entire system can cause disruption. For example, a manager may decide to use the 5S methodology but not have a plan or performance measure for sorting, tidiness, cleanliness, standardisation and workplace improvement.

Another, more optimal, approach takes into account investing for the long term and using the philosophy of long-term development. In the context of political instability, military conflicts, constant changes in legislation and its non-enforcement, an entrepreneur may consider it inappropriate to use Japanese methods. Table 1 shows the differences between the two accounting systems.

Table 1

Comparison of traditional and lean accounting

Indicator	Cost-effective accounting	Traditional accounting
1	2	3
Production/ Precision inventory control	Kanban is an inventory management system that is based on accurate signals of inventory consumption in production. It helps to avoid overproduction and stock-outs by determining the exact quantities to be produced or ordered.	A work order is a document that contains information about the tasks and scope of work to be performed in production. In the context of inventory accounting, this can indicate the need for specific materials.
	Visual cues are the use of specific markers, labels, or signals that provide information about stock levels, replenishment needs, etc. This helps to respond quickly to changes and avoid overstocking.	Production tracking is monitoring and controlling the production process, including material consumption and production of finished products. Allows you to determine how much material was used and how this affects inventory levels.
	5S is a methodology that includes sorting, systematising, cleaning, standardising and self-discipline in the workplace. It helps to optimise workspace and arrange inventory in a way that makes it easier to account for and manage.	Cyclic inventory is a periodic check and assessment of the actual inventory on hand to identify possible differences between the actual and recorded inventory quantities.
Approximation	Key suppliers are an important component of lean inventory management, as working with key reliable suppliers helps to ensure the consistency of supply and quality of materials.	Approval of a purchase order involves agreeing on the quantity and characteristics of the goods to be purchased. However, this approach may be less efficient than framework orders.
	Framework orders are defined in advance as the volume and characteristics of goods to be purchased within a certain framework. This allows you to ensure that you have the right stock without overstocking.	The three-way matching in accounts payable is a component that involves checking accounts payable in three aspects: internal order approval, actual deliveries and the invoice. This is to ensure that payments are accurate and in line with the invoice.
	Supplier certification is a component that involves assessing and confirming the competence and reliability of suppliers.	
Quality indicator	Standardised work is the use of standards and norms to define efficient ways of performing tasks. Standardised work simplifies processes and allows for effective control over production.	Thorough reviews are the evaluation of processes and products to ensure compliance with established standards and identify possible improvements. Thorough reviews may include analysing production processes, checking quality and efficiency.
	Unit flow production is an approach to manufacturing in which production processes are organised to produce products or services without interruption and with minimal delays. It helps to increase productivity and efficiency.	Residual materials are materials that remain after the production process and are not included in the final product. Accounting for residual materials is important for effective inventory management and cost optimisation.

Source: compiled by the author

Despite these differences and the complexities of applying the principles of lean manufacturing, the world's leading companies: "Toyota Motor Corporation, Ford Motor Company, Herman Miller, Lockheed Martin prefer this approach. This can be seen in the successful implementation of lean manufacturing principles outside Japan, for example, at Lantech.

The state of implementation of the lean manufacturing concept (LEAN) in Ukrainian enterprises shows the gradual development of this approach and the interest in it in recent years. Global experience confirms the effectiveness of LEAN in various industries and its ability to optimise business processes aimed at meeting customer needs and reducing costs.

In Ukraine, the implementation of the LEAN concept is being driven, in particular, by foreign companies that are adopting this approach in their production systems. This applies to the automotive sector, where the number of companies using LEAN to improve productivity and efficiency is growing.

An example of successful implementation of the LEAN concept is Modern-Expo Group, which has achieved impressive results in the first five years of implementation. A significant increase in productivity, reduction of production space and waste, Lead Time and other indicators achieved demonstrate the success and prospects of using the LEAN concept at Ukrainian enterprises.

Compared to upgrading equipment or launching a new production facility to upgrade an enterprise, lean production is a more cost-effective way to do things. It is important that when implementing lean production, a company should find a competent specialist, as the effectiveness of the method depends on it, and it is also imperative to introduce this approach to employees. For domestic businesses, the difficulty lies in the limited number of specialists who can properly implement Japanese methods at Ukrainian enterprises. There is also the possibility of resistance to innovation among the staff, including managers. In this case, it may even be necessary to terminate cooperation with employees who are not ready to adapt and accept changes. In such a situation, the company will incur unwanted financial costs associated with dismissal and severance payments.

Thus, it is obvious that the complexity of implementing a lean production system is not mainly due to the costs of its implementation, but rather depends on the human factor.

However, another situation is possible. For example, it is difficult for INTERPIPE company to apply the just-in-time principle in its production due to a shortage of raw materials - scrap metal, which is the main component for the manufacture of their products: pipes and wheels for railway transport. In this regard, they purchase steel raw materials in advance and in large quantities to hedge against rising prices on the national market. The situation is similar for finished products exported to the markets of Europe, the CIS, North and South America, the Middle East and North Africa. As the terms of delivery may vary (timing, delivery in batches), it is a strategic necessity to have sufficient storage space.

To illustrate the importance of implementing the LEAN concept, consider the Fort-Post Construction Company, which is one of the first private organisations to invest heavily in the construction of a brand new modern residential space in Kharkiv. The company has a positive reputation and is trusted and respected by local investors (Fort-Post Budivelnna kompaniia, n.d.). Today, this company is a leader in Kharkiv in the field of residential and commercial real estate. Construction is carried out according to modern individual projects, using new

technologies that provide a completely new level of quality. This guarantees a stable demand for the property offered.

The introduction of the concept of lean manufacturing would ideally address a number of key issues that most businesses face on a daily basis (Figure 3).

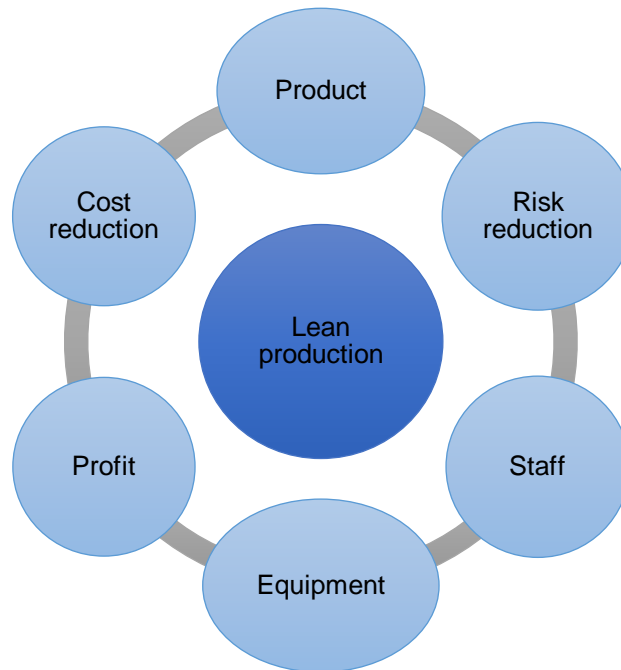


Figure 3. Key issues faced by most businesses on a daily basis

Source: *Materials from Hochschule Mittweida*

It is worth noting that effective corporate governance, including the implementation of the LEAN concept, interacts with strategic management, ensuring complementarity and optimisation of business processes. In the context of modern business, strategic management is an important tool for achieving success and sustainable development, which determines the long-term ability of an enterprise to adapt to changes in society and market conditions. It involves defining long-term goals and ways to achieve them, taking into account resources, the competitive environment, market conditions, etc.

Thus, the integration of the LEAN concept into Fort-Post's corporate governance will not only ensure the optimisation of business processes, but will also be in line with the strategic focus on manufacturing quality products and achieving market leadership.

As part of strategic management and analysis of the macro-environmental factors of an enterprise, PEST analysis is an important tool. PEST analysis includes an assessment of the impact of four main groups of factors on the company's operations: political, economic, sociocultural and technological. Table 2 provides an analysis of the factors of the enterprise's macro environment.

Table 2

PEST-analysis of the enterprise

Policy	Economy
Government strategy on entrepreneurship	Socio-economic level of the population
Competition regulation	Rising consumer prices
Tax policy	Economic costs
Licensing of goods and services	Solvency of the population
	Increase in the cost of goods from suppliers
	Coronavirus pandemic
	Full-scale invasion of the Russian Federation
Society	Technology
Population trends	Emergent construction
Decline in real incomes	Wide use of automated tools
Population movement	Innovative approaches to service delivery
Modification of lifestyle and standard of living	Innovative processing of building materials
The role of the media	

Source: compiled by the author

Thus, the overall impact of the economic environment on the operation of the enterprise is negative. Economic factors have the most negative impact. High inflation and declining household incomes affect the purchasing power of consumers and, consequently, their spending.

In second place in terms of influence are social aspects. Migration of people to economically developed areas leads not only to a decrease in the number of people, but also to a change in their social status. This leads to a decrease in the level of consumers' income and their cultural level. Political factors rank third in terms of influence. All attempts by the government to regulate the market lead to restrictions on the activities of retailers, an increase in production costs and, consequently, a decrease in trade profitability and profits. The pandemic has led to a sharp decline or change in demand for many goods and services. This poses a challenge for production, as LEAN methods are built on a production system that is precisely aligned with market needs. LEAN production processes need to be adapted to changes in demand and production volumes (Skliarenko, 2020). However, the most urgent and important problem for Ukraine today is the full-scale invasion of the Russian Federation. The situation of martial law is characterised by uncertainty, extraordinary circumstances and danger. This complicates the planning and development of standards, which are the basis of the LEAN concept. In wartime, resources are usually limited, including finances, personnel and time. Implementing LEAN requires a significant investment in training and optimisation processes, but this can be difficult to achieve in a military conflict.

In a situation where the macroeconomic environment reveals a negative impact on the company's operations, it is important to take effective measures to optimise and improve the efficiency of business processes. In this context, the implementation of the LEAN concept can be an excellent strategic step to optimise operations and increase the company's competitiveness. Here are some aspects of the need to implement the LEAN concept:

- The LEAN concept is aimed at optimising the use of resources, including human, material and financial. This is especially important in the context of shrinking sales markets and declining incomes;
- LEAN aims to eliminate any redundant operations and processes that do not add value to the customer. This can be particularly effective in reducing the negative impact of a downturn in household incomes;
- LEAN aims to improve the quality of products and services by eliminating defects and redundant steps in production processes. This can improve the perception of products and services by a declining population;
- The LEAN concept allows you to quickly adapt to changes in the competitive environment, including increased competition. Rapid and flexible change can help maintain competitive advantage;
- Implementing the LEAN concept can improve working conditions and processes by enabling new practices and efficient ways of working. This will have an impact on staff morale and productivity.

Given the negative impact of the macroeconomic environment on the enterprise, the LEAN concept can help ensure sustainability and efficiency in optimising business processes, provide a competitive advantage and support in a challenging market environment.

Let's develop a plan for integrating the Lean concept into the activities of Fort-Post LLC (Table 3).

This plan is an important tool for the successful integration of the Lean concept at Fort-Post LLC. Forming a team of dedicated and competent employees who will be involved in Lean integration will create a favourable atmosphere of cooperation and exchange of ideas. Evaluation of preliminary results and presentation of the strategy will help to understand what aspects need to be improved in the context of the Lean concept.

Table 3

Plan for the integration of the Lean concept in Fort-Post LLC

Step 1: Understanding Lean and setting goals	Introduction to the Lean concept. Training and education of employees on the basics of Lean, its principles and benefits.
	Defining the purpose and goals. Establish clear goals that the company wants to achieve through Lean implementation, such as increasing productivity, reducing cycle time, reducing costs, etc.
Step 2: Analyse and assess the current state	Process evaluation and cost identification. Analyse and identify the main processes where Lean can be applied, identify and assess current costs.
	Process flow mapping. Create a flow map to better understand your processes and identify redundancies and wasteful costs.
Step 3: Planning and strategy development	Defining a Lean implementation strategy. Developing a detailed plan, identifying priority areas for Lean implementation and defining steps for each area.
	Formation of teams and leadership. Create teams that will be responsible for implementing and coordinating Lean across the company's various departments, as well as appointing project leaders.
Step 4: Implementation and execution	Staff training and support. Conduct training for all staff to ensure they understand and support Lean.
	Testing and implementation of changes. Launching pilot projects according to the developed plan, gaining previous experience in implementing Lean.

Step 5: Evaluation and continuous improvement	Measurement and analysis of results. Identifying key performance indicators and evaluating the results of Lean implementation.
	Continuous improvement and optimisation. Discussion of the results achieved, identification of opportunities for Lean improvements in the company.
Step 6: Embracing and sustaining a Lean culture	Establishing Lean as a culture. Create conditions for establishing Lean as a key element of the organisational culture and ensuring that all employees adhere to it.
	Overseeing the implementation and spread of Lean. Establishing a monitoring system and providing support to ensure the continued success and spread of Lean across all aspects of the company.

Source: compiled by the author on the basis of (Hryhoriev & Habor, 2022, p.15)

In general, this plan enables step-by-step adaptation of strategy and business processes to the principles and goals of the Lean concept, ensuring effective and efficient integration of this concept into the organisation.

Conclusions. In summary, the article analyses the LEAN concept, focusing on its principles and methodology in the context of optimising business processes and improving the efficiency of enterprises. The importance and benefits of implementing this concept for enterprises in the current competitive environment are assessed. The article also assesses the impact of political, economic, socio-cultural and technological factors on the activities of Fort-Post LLC, deepened understanding of the nature of the activities and features of the construction industry, which is a key aspect for the successful integration of the LEAN concept.

Based on the analysis, were developed tips for integrating the LEAN concept into the business processes of Fort Post LLC, taking into account the peculiarities of the enterprise and the specifics of the industry. The proposed recommendations are aimed at facilitating the implementation of LEAN with maximum efficiency and minimising possible difficulties. In general, the integration of the LEAN concept into the activities of Fort-Post LLC has the potential to significantly improve the company's efficiency, reduce costs and increase competitiveness in the construction services market.

References

1. Vasylichenko, O. (2023, June 20). Systemnyi analiz makroseredovyshcha pidpriemstv sfery posluh [System analysis of the macro-environment of enterprises in the field of services]. *Zbirnyk naukovykh prats TDATU imeni Dmytra Motornoho (ekonomichni nauky)*, (1(47)), 53-67. doi: [10.31388/2519-884x-2023-47-53-68](https://doi.org/10.31388/2519-884x-2023-47-53-68) [in Ukrainian].
2. Hryhoriev O., & Habor. Ya. (2022). LEAN menedzhment v umovakh ekonomichnoho zrostantia ta rozvytku [LEAN management in the context of economic growth and development]. *Menedzhment ta pidpriemnytstvo v Ukraini: etapy stanovlennia ta problemy rozvytku*, (2), 10-16. Retrieved from <https://science.lpnu.ua/> [in Ukrainian].
3. Denysiuk, O., & Sannikova, S. (2022). LEAN-menedzhment yak tekhnolohiia upravlinnia vitchyznianymy pidpriemstvamy v umovakh kryzy [LEAN-management as a technology for managing of domestic enterprises in crisis conditions]. *Ekonomika ta suspilstvo*, (46), 1-6. doi: [10.32782/2524-0072/2022-46-13](https://doi.org/10.32782/2524-0072/2022-46-13) [in Ukrainian].
4. Kolisnyk V. Vystupaiuchy initsiatorom zapusku Basic LEAN – prohramy oshchadlyvoho vyrobnytstva, UTSSB stvoriuie maidanchyk dlia vidkrytoho dialohu mizh uchasnykamy, spilnoho analizu rezultativ vprovadzen, obminu dosvidom ta ideiamy, shcho budut spriaty rozvytku osobystoi kompetentsii, rozvytku pidpriemstv i haluzi v tselomu [Being the initiator of the Basic LEAN programme, the USCC creates a platform for an open dialogue between participants, joint analysis of implementation results, exchange of experience and ideas that will contribute to the development of personal competence, development of enterprises and the industry as a whole]. (n.d.). Ukrainskyi tsentr stalevoho budivnytstva. Retrieved from <https://uscc.ua/> [in Ukrainian].
5. Materials from Hochschule Mittweida [in Ukrainian].

6. Nebrat V. (Ed.). (2023). Reconstruction for development: foreign experience and Ukrainian perspectives. *NAS of Ukraine, SI «Institute for Economics and Forecasting of the NAS of Ukraine»*. 99-101. Retrieved from <http://ief.org.ua/> [in Ukrainian].
7. Perlyt, I. (2019, May 28). Kontseptsii LEAN yak novatorskyi pidkhid do upravlinnia biznesom v Ukraini [The LEAN concept as an innovative approach to business management in Ukraine]. *Economy, organization and administration of enterprises, branches and complexes. Ternopilskyi natsionalnyi ekonomichnyi universytet*. Retrieved from <http://www.spilnota.net.ua/> [in Ukrainian].
8. Ryzhenko, O. (2022). Osoblyvosti vprovadzhennia kontseptsii LEAN-MANAGEMENT na metalurhiinomu pidpriemstvi [Implementation specifics of the LEAN-MANAGEMENT concept at the metallurgical enterprise]. *Review of transport economics and management*, (6(22)), 60-71. doi: [10.15802/rtem2021/260593](https://doi.org/10.15802/rtem2021/260593) [in Ukrainian].
9. Seliverstova, L., & Losovskaya, N. (2019). Pidkhody do formuvannia orhanizatsiino-ekonomichnoho mekhanizmu upravlinnia sotsialnoi vidpovidalnistiu biznesu [Approaches to the formation of organisational and economic mechanism for managing business social responsibility]. *Ekonomika ta derzhava*, (7), 13–16. doi: [10.32702/2306-6806.2019.7.13](https://doi.org/10.32702/2306-6806.2019.7.13) [in Ukrainian].
10. Skliarenko, N. (2020, September 7). Oshchadlyve vyrobnytstvo: yak zabezpechyty stalnyi rozvytok biznesu, navit pid chas kryzy [Lean manufacturing: how to ensure sustainable business development, even in times of crisis]. *RBC-Ukraine*. Retrieved from <https://daily.rbc.ua/> [in Ukrainian].
11. Fort-Post Budivelna kompaniia (n.d.). Ofitsiinyi sait kompanii «FortPost» [Official website of the FortPost company]. Retrieved from <https://fort.kh.ua/> [in Ukrainian].
12. A Brief History of Lean. (n.d.). Lean Enterprise Institute. Retrieved from <https://www.lean.org/>.
13. Lean management – stratehiia, yaka okupaietsia [Lean management is a strategy that pays off]. (2021, August 31). *Trans.eu*. Retrieved from <https://www.trans.eu/> [in Ukrainian].
14. Veres, C. (2020). Conceptual Model for Introducing Lean Management Instruments. *Procedia Manufacturing*, 46, 233-237. doi: [10.1016/j.promfg.2020.03.034](https://doi.org/10.1016/j.promfg.2020.03.034).

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CONSIDERATION OF BEHAVIORAL FACTORS WHEN OPTIMIZING THE INVESTMENT PORTFOLIO

Abstract. The influence of behavioral factors on the optimization of the investment portfolio is considered. The purpose of the study is to deepen the theoretical understanding of the peculiarities of the influence of behavioral factors on the process of optimizing the investment portfolio under conditions of uncertainty. Peculiarities of behavioral aspects of investment behavior are analyzed. It was determined that structured investment products are considered as a tool for forming a sustainable portfolio that takes into account dynamic market information. An assessment of investment portfolio insurance strategies was carried out in the context of the cumulative theory of prospects. It is substantiated that psychological factors have a significant impact on portfolio optimization, and their consideration makes it possible to improve the efficiency of investment strategies.

Keywords: behavioral finance, investment portfolio, optimization, structured products, strategy.

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ВРАХУВАННЯ ПОВЕДІНКОВИХ ЧИННИКІВ ПРИ ОПТИМІЗАЦІЇ ІНВЕСТИЦІЙНОГО ПОРТФЕЛЯ

Анотація. Розглядається вплив поведінкових факторів на оптимізацію інвестиційного портфеля. Метою дослідження є поглиблення теоретичного розуміння особливостей впливу поведінкових факторів на процес оптимізації інвестиційного портфеля в умовах невизначеності. Проаналізовано особливості поведінкових аспектів інвестиційної поведінки. Визначено, що структуровані інвестиційні продукти розглядаються як інструмент для формування стійкого портфеля, який враховує динамічну ринкову інформацію. Здійснено оцінювання стратегій страхування інвестиційного портфеля в контексті сукупної теорії перспектив. Обґрунтовано, що психологічні чинники мають суттєвий вплив на портфельну оптимізацію, а їх врахування дає змогу покращити ефективність інвестиційних стратегій.

Ключові слова: поведінкові фінанси, інвестиційний портфель, оптимізація, структуровані продукти, стратегія.

Problem statement. One of the most important problems for investors is choosing the best alternative in order to maximize the value of their own investment. However, in conditions of uncertainty and risk, deciding on the optimal composition of the portfolio is a complex process. The idea of an "optimal portfolio" comes from the modern portfolio theory introduced by Markowitz (1952). This theory assumes that a risk-averse investor chooses his own portfolio based on the mean and variance of asset returns. It is believed that the investor acts rationally and always makes decisions in order to maximize the return of his own portfolio at a given level of risk. The solution to this problem of portfolio optimization consists in determining the optimal weight associated with each admissible asset in the portfolio, that is, the diversification effect is formalized within the effective portfolio, which provides the investor with a tool for determining the effective portfolio in terms of "risk/expected return".

Relevance of the chosen topic. The traditional selection of an optimal portfolio is based on the principle of investor rationality and risk appetite, which form the basis of classical decision-making theory based on the fundamental theory of expected utility (von Neumann & Morgenstern, 1944). This theory was developed on the basis of Bernoulli's utility theory (Bernoulli, 1738). which reflects the relationship of risk appetite (concave utility function) and has been the subject of numerous studies, especially in the financial field in the context of the allocation of financial assets. The theory of expected utility is based on the "homo-oeconomicus", whose behavior is guided by self-interest and rational decision-making, and assumes that each decision-maker has the necessary information and resources to find his best option. However, despite its initial popularity among theorists, this theory does not always reflect the real behavior of investors in connection with the random fluctuations of stock markets.

Analysis of recent research and publications. Making investment portfolio decisions in conditions of risk and uncertainty was and remains a very important topic that has become the subject of numerous studies, both empirical (actual behavior of people) and

theoretical (axiomatics of decision-making theory), including the works of such scientists as: H.B. Ameur and J.L. Prigent, S. Biagini and M.C. Pinar, L. Deng and T.A. Pirvu, H. Kaya, H., H. Markowitz, R.C. Merton, B. Solnik, M. Statman, M.E., D. Vrecko and N. Branger, N. Yaari and many others. The purpose of these works was to develop rational models of investment decision-making and/or models that take into account the actual attitude of people to risk.

Purpose of the article. The purpose of the article is to deepen the theoretical understanding of the peculiarities of the influence of behavioral factors on the process of optimizing the investment portfolio under conditions of uncertainty.

To achieve the goal, the following tasks must be solved:

- analysis of behavioral aspects of investment behavior in conditions of uncertainty;
- determining the role of structured investment products in portfolio optimization;
- assessment of investment portfolio insurance strategies in the context of cumulative prospect theory.

Presentation of the main research material and results obtained. Risk and uncertainty are sometimes used interchangeably, but their meaning is not always easy to understand. Knight (1921) proposed a fundamental distinction between risk (the probability of an event occurring is known) and uncertainty (the probability of an event occurring is unknown). Over the past few decades, views on how investors actually behave have changed. Behavioral experiments have become an important component of economic research, and their results have shown that the fundamental assumptions of classical economic theory need modification. Indeed, as stock markets have evolved over the years, the importance of risk has become increasingly apparent, especially since the 2008 US subprime crisis, when global stock markets experienced a series of rapid and violent financial shocks. The globalization of stock markets, financial integration, and improvements in trading technology and exchange systems have made such markets much more complex, while also creating new sources of risk. Such negative consequences for the stock markets after a series of crises and financial upheavals changed the behavior of investors and called into question the theory of classical finance, based on the assumption of the rationality of the investor's choice and, in particular, on the so-called "axiom of independence". This shift gave impetus to a new line of research in economics in the early 2000s, known as "behavioral economics," which takes into account the importance of emotions and feelings in individual choices. Behavioral economics, which is considered as a combination of psychology and economics, is based, in particular, on prospect theory (Kahneman & Tversky, 1979). From an application point of view, it leads quite naturally to behavioral finance.

Research in the field of behavioral finance became particularly widespread in the 2000s, when proponents of traditional financial theory failed to explain a number of phenomena, such as the financial bubbles in Japan, Taiwan, and the United States. The new approach arose in response to the difficulties faced by the traditional paradigm of expected utility in stock markets. It is considered as a component of behavioral economics and can explain real facts better than traditional finance. Behavioral finance examines the behavior of individuals (directly or indirectly) by studying their various views, desires, mistakes, and preferences based on experimental methods. Thus, behavioral finance is defined in the context of the study of how psychology influences people's behavior (at the individual and/or collective level) in financial markets (Sewell, 2012) . M. Statman defines behavioral finance as a paradigm that leaves certain components of classical finance and replaces others

(Statman, 2014). Therefore, the connection between theory and practice is ensured on the basis of observing the scientific rigor inherent in classical finance. M. Statman discovered, among other things, that financial choices are influenced by culture, social responsibility and feelings of each economic agent (Statman, 2014).

This relatively new line of research was pioneered by cognitive psychologists who studied people's judgments in decision-making contexts and experimental economists who tested models of economic decision-making. This new science is seen as a critique of the paradigm of classical finance, which is essentially based on the rationality of individual choice and the efficiency of information on the price level. In 2002, the Swedish State Bank's Alfred Nobel Memorial Prize in Economic Sciences was jointly awarded to economist Vernon Smith and cognitive psychologist Daniel Kahneman, considered a pioneer of behavioral economics and behavioral finance, for his research contributions in the field of empirical psychology to economic science, and in particular, in the field of decision-making. He studied the cognitive and emotional biases that lead to anomalies in the stock markets, and developed in 1979 with Amos Tversky prospect theory, which is considered one of the foundations of behavioral finance. In 1992, this theory was improved by them and became the cumulative prospect theory (Kahneman & Tversky, 1992). It has become a standard model based, among other things, on the weighted probability function and allows taking into account a number of experimental observations that are incompatible with the traditional theory of expected utility. In 2017, Richard Thaler was awarded the Swedish State Bank's Alfred Nobel Prize in Economic Sciences for his contribution to behavioral economics. His empirical and theoretical research has played a crucial role in creating a rapidly developing field.

Since the 1960s, experimental studies have shown that cognitive biases and heuristics play a very important role in human decision-making. In this context, the classical model of expected utility has repeatedly been criticized with the development of research in the field of psychology of judgment and decision-making. Indeed, several empirical studies have shown that the classical theory of expected utility does not provide an adequate description of an individual's behavior in conditions of risk and uncertainty. This theory has been repeatedly questioned. It has been found that in the context of Allais paradox, people are willing to pay a risk premium to have a safe alternative and avoid risk (Allais, 1953). Ellsberg's paradox illustrates the fact that people prefer to make bets in a scenario where the probabilities of different possible alternatives are known (Ellsberg, 1961). These two paradoxes violate the axiom of independence, which is one of the foundations of the theory of expected utility. Friedman and Savage (1948) developed a utility function that models the behavior of people in an uncertain environment. They found that most investors are both risk averse and risk takers. In turn, Markowitz (1952b) proposed the "customary wealth theory" to overcome the "inconvenient" results of the Friedman and Savage (1948) study. He modified the version of the utility function proposed by them, shifting one of its inflection points to the usual wealth (current wealth). These researchers questioned the traditional theory of decision-making, and the results of their experimental studies questioned the axioms of the theory of expected utility. They found that expected utility theory ignores or poorly describes several factors that may influence the actual choices of individuals. In addition, several other researchers presented alternative approaches to this theory, related to the modification of probabilities or utility functions (no longer necessarily always concave), in order to improve the decision-making process in the context of investment portfolio management:

- theory of weighted utility (Hong , 1983);
- theory of rank utility (Quiggin, 1982; Yaari, 1987);
- implicit expected utility (Dekel, 1986);

- cumulative prospect theory (Kahneman & Tversky, 1992).

Cumulative prospect theory, developed by Kahneman and Tversky (1992), is considered a pioneering approach to behavioral finance and shows that people's behavior contradicts the principles of expected utility theory, which assumes that people are equally risk averse and that they are able to objectively assess probabilities in conditions of uncertainty. Indeed, Kahneman and Tversky (1992) found that people overestimate or underestimate real probabilities and that losses have a greater psychological impact on investors than gains of the same amount: investors are risk averse when they receive gains and risk averse when they receive losses. This theory is considered the starting point for a number of works in psychology in the context of static investment portfolio management (eg, Benartzi & Thaler, 1995; Simo-Kengne et al, 2018) and structured investment portfolio management (eg, Deng & Pirvu, 2019). However, several other psychological approaches have made their mark in the field through experimental work and thorough research in the context of decision making and management of standard and structured investment portfolios.

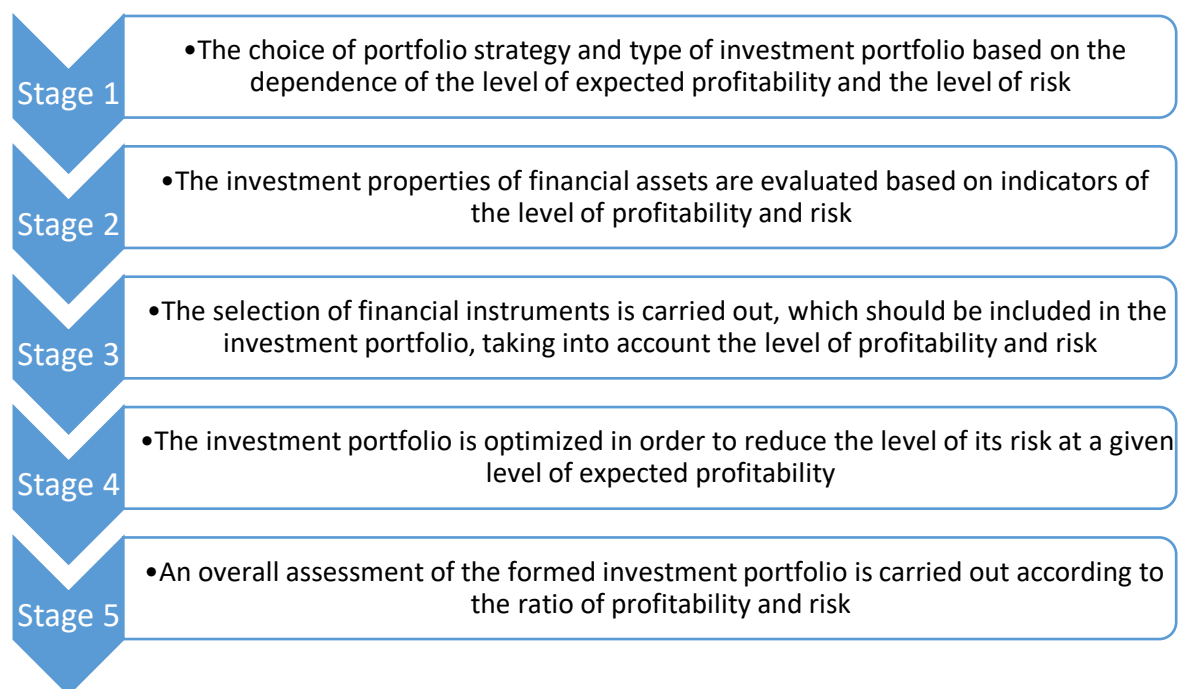


Fig. 1. Sequence of investment portfolio formation

Source: (Materials of Hochschule Mittweida)

Optimizing the investment portfolio involves solving a number of tasks:

- model selection (stochastic);
- data collection;
- parametric, semi-parametric or non-parametric estimation of the model;
- selection of the appropriate optimization criterion;
- determination of the numerical solution of the optimization problem;

The accuracy of the last task depends on the quality of the chain of previous subtasks. After Ellsberg's paradox (Ellsberg, 1961), economic science was replenished with several models of decision-making under conditions of uncertainty. Some models have included uncertainty in the decision-making process and suggested taking into account the individual's

attitude to ambiguity in the utility function. According to Ellsberg (1961), the concept of "ambiguity" often refers to the ambiguity of probabilities in an economic context and, as a rule, to the uncertainty of the values of financial parameters at a practical level. In fact, in the decision-making context, there are several situations where the information available to the investor may be vague, imprecise, or ambiguous. The intellectual way in which a person solves the problem of ambiguity has a significant impact on his decision. In this context, several economic models that take into account parameter-level ambiguity have been applied to standard portfolio management and portfolio hedging. Based on the results of Ellsberg's experimental studies (1961) found that decision makers prefer betting on unambiguous events, that is, they prefer options with well-defined probabilities over options with uncertain probabilities. Such behavior is interpreted as "rejection of ambiguity". Individuals who avoid ambiguity hate uncertainty and adjust their behavior in favor of events with known probabilities, even at the cost of large losses. This type of behavior has been considered in several studies in the context of investment portfolio management. Later, Gilboa and Schmeidler (1989) questioned the subjective measure of probability (ambiguity index) and actually laid the formal foundation of ambiguity theory in the context of decision-making using the "multiple preference approach" (Hassen & Sargent, 2001) and the "multiple prior preference approach" (Gilboa & Schmeidler, 1989). All these models became the basis for the development of several behavioral models in the context of optimization of the investment portfolio in conditions of ambiguity.

Thus, ambiguity can have a significant impact on decision-making, but a person can also experience emotions before making a decision (fear, anxiety, etc.), as well as emotions after it has been made ("relief" in the case of a positive outcome or "sadness" in the case of a negative outcome). The decision maker may compare the outcomes of the chosen alternative with the outcomes of other options that were not chosen, which can induce an unfavorable feeling known as "regret" (Bell, 1983). Regret is an emotion that researchers pay a lot of attention to because most people can easily recall situations in which their poor decision led to painful regret. Bell (1983) defined regret as a consequence of decision-making under conditions of risk and noted that this emotion can arise when individuals (after making a decision) believe that they made a wrong decision, even if it seemed right to them at the time of making it. Bell (1983) and Fishburn (1982) developed a theory of regret, which was later developed by Loomes and Sugden (1982, 1986) and generalized by Quiggin (1994). Since the early 1990s, a number of researchers in psychology and economics have investigated the role of regret in decision-making (eg, Larrick, 1993). A large body of research suggests that regret affects investor choice (eg, Zeelenberg et al., 2000).

Despite the importance of the emotion of regret at the moment of decision-making, under conditions of risk and uncertainty a person can be affected by the emotion of disappointment. Like regret theory, frustration theory is a descriptive theory of choice under conditions of risk and uncertainty. Bell (1985) showed that disappointment is a psychological reaction that a person experiences immediately after making a bad choice. That is, a person feels disappointment (or elation) if the return from his chosen strategy is lower (or higher) than expected. Bell (1985) was the first to develop a frustration theory model in which a person seeks to minimize his frustration. His model is based on the example of Kahneman and Tversky (1979). Loomes and Sugden (1986) retained certain elements in their model that are compatible with regret theory. Later, Gul (1991) developed a model of decision-making based on disappointment avoidance, which was called the "disappointment aversion theory". In addition, Grant and Kajii (1998) presented a decision-making model that is considered a mirror image of Gul's (1991) model and is a generalization of Quiggin's (1982) rank utility theory. Cillo and Deliquié (2006) developed a model related to the theory of rank-dependent preferences. Chauveau and Nalpas (2002) proposed a model comparable to the

model of Loomes and Sugden (1986), which was called the "disappointment weighted utility theory". This theory has been the subject of several studies in the context of investment portfolio management.

Some researchers widely criticize the modern portfolio theory and propose alternative approaches that are based on new measures of risk other than the variance of portfolio returns, or take into account the real behavior of investors to present the closest picture to reality. Several experimental studies have shown that the Markowitz (1952) portfolio optimization model is still too theoretical because it assumes that the investor is always risk averse. These studies have shown that other factors can influence investor behavior: mental accounting, ambiguity aversion, regret aversion, and disappointment aversion, which were taken into account by some researchers when optimizing a standard investment portfolio.

Estimating and forecasting financial indicators remains a very difficult task, and the efficiency and structure of optimal investment portfolios obtained using the mean-square approach are very sensitive to changes in the main parameters of the model (expected return and variance-covariance matrix). In order to account for the ambiguity of financial parameters in the standard portfolio optimization model, Soyster (1973) developed a robust optimization model that can be defined mathematically using convex quadratic programming. However, research in the field of robust optimization stopped for a while and was revived only in the late 1990s and early 2000s thanks to the work of Halldorsson and Tütüncü (2003).

In the context of portfolio optimization under uncertainty, Tütüncü and Koenig (2004) considered a robust "maxmin" optimization problem based on the uncertainty of the expected return vector and variance matrix using the saddle point theorem. They found that the robust efficient portfolio is more relevant and stable over time and consists of fewer asset classes than the traditional efficient portfolio. Fei (2007) determined an investor's optimal portfolio by taking into account expectations and ambiguity. He showed that expectations and ambiguity affect the investor's choice of an optimal portfolio. Later, Liu and Zeng (2015) hypothesized that the ambiguity is due to the correlation between the returns of two risky assets and found that anti-diversification occurs in this context. In addition, Biagini and Pinar (2015) determined the optimal portfolio profile under conditions where ambiguity is associated with asset returns and volatility, based on a robust maximin approach. The results obtained by them showed that the investor believes that the variance-covariance matrix is in a compact and plausible set for this realization of volatility. A little later, Kaya (2017) addressed the portfolio optimization problem when the input parameters are uncertain. He described how this ambiguity can be modeled probabilistically and how it can be handled within an asset allocation framework. In addition, Pflug and Pohl (2018) considered the formulation of the problem of selecting a robust portfolio from the point of view of ambiguity. They showed that in the presence of ambiguity at the level of marginal distributions, the composition of the portfolio becomes optimal in such a way that the uncertainty regarding the estimated structure of dependencies increases. Finally, Shigeta (2018) investigated the behavior of a robust optimal portfolio in the presence of a priori information on several parameters, and his results showed two features: a robust optimal portfolio tends to be efficient when the number of assets is large and exhibits less fluctuation than efficient portfolios with a mean dispersion

In addition, when allocating assets, the investor takes into account the fact that he may regret having made an investment decision that will turn out to be suboptimal in the future. For example, if the return on a risky asset turns out to be very high, an investor may regret not investing all of his money in that risky asset. Conversely, if the return on the risky asset turns out to be very low or negative, the investor may regret having invested even a small part of his own funds in it. Therefore, it makes sense to develop an approach to portfolio

optimization taking into account investor's regret. However, the approaches proposed for regret-aware portfolio optimization are mainly based on stochastic optimization, which assumes that the stochastic data are based on an accurate determination of the underlying probabilities. A lot of research has been done in the context of static portfolio management. Solnik (2007) applied the theory of regret in the context of international portfolio optimization based on the analysis of the preferences of risk-averse individuals who feel regret for domestic assets. He found that investors view foreign assets as a source of potential growth and feel regret if they underperform domestic assets. Later, Ji et al. (2014) generalized an approach to portfolio optimization based on the theory of regret by minimizing the weighted sum of the difference between the return of the investor's portfolio and the total return of each of the possible portfolios. This approach allows you to adhere to the principle of investment diversification.

Given the importance of feelings of frustration in the decision-making process, the theory of frustration has become the subject of a number of studies in the field of standard portfolio management. In this context, some researchers (eg, Akerlof & Dicks, 1982) have added feelings of frustration to the decision-making system. In this sense, Muermann et al. (2006) proposed a model that combines Bell's (1985) frustration theory and Akerlof and Dicks' (1982) concept of frustration. They applied a simple decision criterion to the standard portfolio selection problem and found that investors:

- are more risk averse compared to the expected utility model;
- with expected emotion and disappointment after the fact choose a less risky portfolio than the one formed on the basis of expected utility.

Jouini et al (2013) later revised the model of Muermann et al. (2006) and substantiated that the growth of risk allows the investor to form a more optimal function of payments for the expected portfolio from the positions of the ratio between excitement and disappointment.

Standard portfolio optimization models in behavioral finance are used in practice because they are relatively simple to implement. However, these static models can be considered somewhat simplified, because they have a number of limitations, in particular, they do not take into account dynamic market information and, as a result, do not sufficiently satisfy the needs of investors, who have become very demanding. To facilitate investment decisions, financial institutions have offered structured portfolio management, in particular hedging, which enables investors to form a structured portfolio containing derivatives to protect invested capital. Modern investors are forced to work in markets characterized by a rather high level of uncertainty. Structured products can be an effective tool for investing in almost all asset classes with the appropriate level of protection and are a competitive alternative to traditional financial investments and offer solutions that can be adapted to the needs of each investor. Structured products are issued by financial institutions in order to adapt to the characteristics of investors and meet their specific needs, which cannot be satisfied with the help of standard financial instruments. Such products provide investors with instruments with better characteristics that are not always available directly on the stock market. Structured products also allow investors to increase the utility of their portfolio allocation and provide some level of capital protection and hedging against potential losses. In addition, it allows investors to profit from rising values of risky assets while being only partially vulnerable to market declines.

Structured products are usually issued by banks for private or institutional investors. They are sold through mutual funds and life insurance funds. Such products may be traded on a stock exchange or sold directly by the issuing bank, which quotes the purchase and sale

prices. They are typically a combination of fixed income securities for capital protection and options, futures and other derivatives, often based on market indices, to take advantage of potential market growth. Structured products are a type of term investment, the payout of which depends on the price dynamics of the underlying asset. These products lock in cash for a specific period and can be designed to provide income and/or growth. However, structured products are complex and may carry more risk than meets the eye.

During periods of falling stock markets and high volatility, there is increased demand for structured products, especially those with capital protection provisions. This is exactly what portfolio insurance is for, which is a tool for protection against the risk of losses. Essentially, portfolio insurance gives the investor the ability to limit the risk of a fall while at the same time allowing him to profit in the event of a market rise. The main advantages of structured products depend on the type of underlying asset used. The optimal profile of the portfolio can be determined based on the problem of optimal positioning of the structured product and significantly depends on the investor's risk appetite. According to the theory of expected utility, every rational investor maximizes his expected utility. Arrow (1977) showed that the policyholder is risk neutral and that the optimal insurance strategy provides full coverage. There are two main standard portfolio insurance strategies: constant proportional portfolio insurance and option-based portfolio insurance.

Decision making under conditions of risk and uncertainty in portfolio management has been the subject of numerous studies and remains a very important topic. Expected utility theory is a standard model for analyzing investors' decisions under uncertainty. It has been widely regarded by economists as a reliable basis for portfolio optimization since the seminal work of Merton (1969) and its many extensions in the continuous time framework. Portfolio optimization based on expected utility in a dynamic framework has been the subject of a number of studies, however, despite its popularity, such approaches are not always consistent with real human behavior. In order to better explain the behavior of investors, several decision-making models that take psychological factors into account have been proposed. Such models are based on psychological theories: weighted subjective probabilities, mental accounting, ambiguity, regret and disappointment.

In the context of structured portfolio optimization, Branger and Vrecko (2009) found that loss aversion and probability weighting are two characteristics of aggregate prospect theory that help explain the investor appeal of portfolio insurance strategies. These researchers reasoned that with only one feature of aggregate prospect theory, portfolio insurance remains attractive to the investor, but the utility in terms of portfolio insurance payouts is significantly reduced. In addition, Jin and Zhou (2008) considered the portfolio insurance optimization problem, where the value of the portfolio is given as a function of the benchmark, and investigated situations where the probabilities change. Their vision is interesting because profits and losses are determined by:

- whether the price of the risky asset is higher or lower than the reference price;
- that the optimal investor's portfolio is a combination of two digital options.

Based on the work of Jin and Zhou (2008), Ameur and Prigent (2010) determined optimal portfolio positioning within the framework of cumulative prospect theory. They established that the profit function of the optimal portfolio corresponds to a portfolio consisting of two digital options, where the volatile part corresponds to the winning part and the permanent part corresponds to the losing part.

In addition to ambiguity theory, which has a very important impact on investor choice in terms of standard and structured management, regret theory can also play an important role in the context of investment portfolio management. Regret has a significant impact on portfolio optimization because investors are concerned about the performance of other possible investment strategies.

In practice, ambiguity, as a rule, is associated with a certain uncertainty of the values of financial parameters and probabilities in the economic system (Ellsberg, 1961). Determining the optimal portfolio under conditions of ambiguity is, in fact, carried out within the framework of standard "reliable" portfolio management. Portfolio optimization under ambiguity also remains an important and promising topic in the context of structured portfolio management, although it has received very little attention in the academic literature.

References

1. Materials of Hochschule Mittweida.
2. Akerlof, GA, & Dickens, WT (1982). The Economic Consequences of Cognitive Dissonance. *The American Economic Review* , 72 (3), 307-319. <http://www.jstor.org/stable/1831534>
3. Allais, M. (1953). Le Comportement de l'Homme Rational devant le Risque: Critique des Postulats et Axiomes de l'Ecole Americaine. *Econometrica* , 21 (4), 503 - 546. <https://doi.org/10.2307/1907921>
4. Ameur, HB, & Prigent, JL (2010). Behavior towards Risk in Structured Portfolio Management. *International Journal of Economics and Finance* , 2 (5). 91-102. <https://doi.org/10.5539/ijef.v2n5p91>
5. Arrow KJ (1979). Economics and human welfare. In *The property rights doctrine and demand revelation under incomplete information* (p. 39). <https://doi.org/10.1016/B978-0-12-118850-4.50007-2>
6. Bell, D. E. (1983). Risk Premiums for Decision Regret. *Management Science* , 29 (10), 1156 - 1166. <https://doi.org/10.1287/mnsc.29.10.1156>
7. Bell, DE (1985). Disappointment in Decision Making Under Uncertainty. *Operations Research* , 33 (1), 1 - 27. <https://doi.org/10.1287/opre.33.1.1>
8. Benartzi, S., & Thaler, RH (1995). Myopic Loss Aversion and the Equity Premium Puzzle. *The Quarterly Journal of Economics* , 110 (1), 73-92. <https://doi.org/10.2307/2118511>
9. Bernoulli D. (1738). Specimen theoriae novae de mensura sortis. *Commentari Academiae Scientiarum Imperialis Petropolitanae* , 5, 175-192. (Translated as Exposition of a New Theory on the Measurement of Risk (1954). *Econometrica*, 22, 23-26.
10. Biagini, S., & Pinar, M. Ç. (2016). The robust Merton problem of an ambiguity averse investor. *Mathematics and Financial Economics* , 11 (1), 1-24. <https://doi.org/10.1007/s11579-016-0168-6>
11. Chauveau, T., & Nalpas, N. (2002). Disappointment, Pessimism and the Equity Risk Premia. *SSRN Electronic Journal* . <https://doi.org/10.2139/ssrn.302930>
12. Dekel, E. (1986). An axiomatic characterization of preferences under uncertainty: Weakening the independence axiom. *Journal of Economic Theory* , 40 (2), 304 - 318. [https://doi.org/10.1016/0022-0531\(86\)90076-1](https://doi.org/10.1016/0022-0531(86)90076-1)
13. Delquié, P., & Cillo, A. (2006). Expectations, Disappointment, and Rank-Dependent Probability Weighting. *Theory and Decision* , 60 (2 - 3), 193 - 206. <https://doi.org/10.1007/s11238-005-4571-3>
14. Deng, L., & Pirvu, T. A. (2019). Multi-Period Investment Strategies under Cumulative Prospect Theory. *Journal of Risk and Financial Management* , 12 (2), 83. <https://doi.org/10.3390/jrfm12020083>
15. Ellsberg, D. (1961). Risk, Ambiguity, and the Savage Axioms. *The Quarterly Journal of Economics* , 75 (4), 643-669 . <https://doi.org/10.2307/1884324>
16. Fei, W. (2007). Optimal consumption and portfolio choice with ambiguity and anticipation. *Information Sciences* , 177 (23), 5178–5190. <https://doi.org/10.1016/j.ins.2006.07.028>
17. Fishburne, PC (1982). Nontransitive measurable utility. *Journal of Mathematical Psychology* , 26 (1), 31 - 67. [https://doi.org/10.1016/0022-2496\(82\)90034-7](https://doi.org/10.1016/0022-2496(82)90034-7)
18. Friedman, M., & Savage, LJ (1948). The Utility Analysis of Choices Involving Risk. *Journal of Political Economy* , 56 (4), 279 - 304. <https://doi.org/10.1086/256692>
19. Gilboa, I., & Schmeidler, D. (1989). Maxmin expected utility with non-unique prior. *Journal of Mathematical Economics* , 18 (2), 141-153. [https://doi.org/10.1016/0304-4068\(89\)90018-9](https://doi.org/10.1016/0304-4068(89)90018-9)
20. Grant, S., & Kajii, A. (1998). AUSI expected utility: An anticipated utility theory of relative disappointment aversion. *Journal of Economic Behavior and Organization* , 37 (3), 277 - 290. [https://doi.org/10.1016/s0167-2681\(98\)00094-8](https://doi.org/10.1016/s0167-2681(98)00094-8)
21. Gul, F. (1991). A Theory of Disappointment Aversion. *Econometrica* , 59 (3), 667-686 . <https://doi.org/10.2307/2938223>

22. Halldórsson, BV, & Tütüncü, RH (2003). An Interior-Point Method for a Class of Saddle-Point Problems. *Journal of Optimization Theory and Applications* , 116 (3), 559–590. <https://doi.org/10.1023/a:1023065319772>
23. Hansen, LP, & Sargent, TJ (2001). Robust Control and Model Uncertainty. *American Economic Review* , 91 (2), 60 - 66. <https://doi.org/10.1257/aer.91.2.60>
24. Hong, CS (1983). A Generalization of the Quasilinear Mean with Applications to the Measurement of Income Inequality and Decision Theory Resolving the Allais Paradox. *Econometrica* , 51 (4), 1065-1092. <https://doi.org/10.2307/1912052>
25. Ji, Y., Wang, T., Goh, M., Zhou, Y., & Zou, B. (2014). The worst-case discounted regret portfolio optimization problem. *Applied Mathematics and Computation* , 239 , 310-319. <https://doi.org/10.1016/j.amc.2014.04.072>
26. Jin, H., & Yu Zhou, X. (2008). Behavioral portfolio selection in continuous time. *Mathematical Finance* , 18 (3), 385–426. <https://doi.org/10.1111/j.1467-9965.2008.00339.x>
27. Jouini, E., Karehnke, P., & Napp, C. (2014). On Portfolio Choice with Savoring and Disappointment. *Management Science* , 60 (3), 796 - 804. <https://doi.org/10.1287/mnsc.2013.1767>
28. Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica* , 47 (2), 263-292. <https://doi.org/10.2307/1914185>
29. Kaya, H. (2016). Managing ambiguity in asset allocation. *Journal of Asset Management* , 18 (3), 163-187. <https://doi.org/10.1057/s41260-016-0029-0>
30. Knight FH (2013). *Risk uncertainty and profit* (Repr). Miami : HardPress Publ.
31. Larrick, RP (1993). Motivational factors in decision theories: The role of self-protection. *Psychological Bulletin* , 113 (3), 440–450. <https://doi.org/10.1037/0033-2909.113.3.440>
32. Liu, J., & Zeng, X. (2015). Diversification and Correlation Ambiguity. *SSRN Electronic Journal* . <https://doi.org/10.2139/ssrn.2692692>
33. Loomes, G., & Sugden, R. (1982). Regret Theory: An Alternative Theory of Rational Choice Under Uncertainty. *The Economic Journal* , 92 (368), 805-824 . <https://doi.org/10.2307/2232669>
34. Loomes, G., & Sugden, R. (1986). Disappointment and Dynamic Consistency in Choice under Uncertainty. *The Review of Economic Studies* , 53 (2), 271 -282 . <https://doi.org/10.2307/2297651>
35. Markowitz, H. (1952). Portfolio Selection. *The Journal of Finance* , 7 (1), 77 - 91. <https://doi.org/10.2307/2975974>
36. Markowitz, H. (1952 b). The Utility of Wealth. *Journal of Political Economy* , 60 (2), 151 - 158. <https://doi.org/10.1086/257177>
37. Merton, RC (1969). Lifetime Portfolio Selection under Uncertainty: The Continuous-Time Case. *The Review of Economics and Statistics* , 51 (3), 247 -257 . <https://doi.org/10.2307/1926560>
38. Muermann, A., Mitchell, OS, & Volkman, JM (2006). Regret, portfolio choice, and guarantees in defined contribution schemes. *Insurance: Mathematics and Economics* , 39 (2), 219 - 229. <https://doi.org/10.1016/j.insmatheco.2006.02.006>
39. Pflug, G. Ch., & Pohl, M. (2017). A Review on Ambiguity in Stochastic Portfolio Optimization. *Set-Valued and Variational Analysis* , 26 (4), 733-757. <https://doi.org/10.1007/s11228-017-0458-z>
40. Quiggin, J. (1982). A theory of anticipated utility. *Journal of Economic Behavior and Organization* , 3 (4), 323 - 343. [https://doi.org/10.1016/0167-2681\(82\)90008-7](https://doi.org/10.1016/0167-2681(82)90008-7)
41. Quiggin, J. (1994). Regret theory with general choice sets. *Journal of Risk and Uncertainty* , 8 (2), 153 - 165. <https://doi.org/10.1007/bf01065370>
42. Sewell, MV (2012). The Efficient Market Hypothesis: Empirical Evidence. *International Journal of Statistics and Probability* , 1 (2). <https://doi.org/10.5539/ijsp.v1n2p164>
43. Shigeta, Y. (2018). Ambiguity Matters If You Invest in Many Assets. *SSRN Electronic Journal* . <https://doi.org/10.2139/ssrn.3110403>
44. Simo-Kengne, BD, Ababio, KA, Mba, J., & Koumba, U. (2018). Behavioral portfolio selection and optimization: an application to international stocks. *Financial Markets and Portfolio Management* , 32 (3), 311 - 328. <https://doi.org/10.1007/s11408-018-0313-8>
45. Solnik, B. (2008). Equity Home Bias and Regret: An International Equilibrium Model. *SSRN Electronic Journal* . <https://doi.org/10.2139/ssrn.828405>
46. Soyster, AL (1973). Technical Note - Convex Programming with Set-Inclusive Constraints and Applications to Inexact Linear Programming. *Operations Research* , 21 (5), 1154–1157. <https://doi.org/10.1287/opre.21.5.1154>
47. Statman, M. (2014). Behavioral finance: Finance with normal people. *Borsa Istanbul Review* , 14 (2), 65 - 73. <https://doi.org/10.1016/j.bir.2014.03.001>
48. Tütüncü, RH, & Koenig, M. (2004). Robust Asset Allocation. *Annals of Operations Research* , 132(1-4), 157-187. <https://doi.org/10.1023/b:anor.0000045281.41041.ed>
49. Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty* , 5 (4), 297 - 323. <https://doi.org/10.1007/bf00122574>

50. von Neumann, J. & Morgenstern, O. (2004). *Theory of Games and Economic Behavior* (60th Anniversary Commemorative Edition). Princeton: Princeton University Press. <https://doi.org/10.1515/9781400829460>
51. Vrecko, D., & Branger, N. (2009). Why is Portfolio Insurance Attractive to Investors? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1519344>
52. Yaari, ME (1987). The Dual Theory of Choice under Risk. *Econometrica*, 55 (1), 95-115. <https://doi.org/10.2307/1911158>
53. Zeelenberg, M., van Dijk, WW, Manstead, ASR, & van der Pligt, J. (2000). On bad decisions and disconfirmed expectations: The psychology of regret and disappointment. *Cognition and Emotion*, 14 (4), 521 - 541. <https://doi.org/10.1080/026999300402781>

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INTERNATIONAL AID TO UKRAINE DURING THE WAR PERIOD: IMPACT AND SIGNIFICANCE OF THE GLOBAL COMMUNITY AND HUMANITARIAN CONSEQUENCES

Abstract. In the modern world, where geopolitical conflicts and military clashes are becoming increasingly relevant, international aid, as an integral part of international relations, is gaining special importance. Ukraine, which found itself at the center of a full-scale war with Russia at the beginning of 2022, has become the object of attention from both world leaders and society as a whole. The purpose of the study is to analyze the impact and significance of international aid provided to Ukraine during the war, as well as its humanitarian consequences. To achieve the goal, a complex of complementary methods of scientific identification of economic processes and phenomena was used: historical-logical, comparative and statistical analysis, as well as information, process and institutional approaches. The main task of this study is a thorough analysis of the features of foreign financing and other assistance aimed at supporting the economic stability of Ukraine and accelerating the end of the conflict in the country. The topicality of the topic is determined by humanitarian necessity, political context, economic challenges and geopolitical consequences of the conflict. The study is analytical in nature, and its results contribute to a better understanding of the impact of international aid on Ukraine in the context of the conflict and emphasize the importance of humanitarian aspects in this context.

Keywords: international aid, global community, humanitarian consequences, war.

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МІЖНАРОДНА ДОПОМОГА УКРАЇНІ У ВОЄННИЙ ПЕРІОД: ВПЛИВ І ЗНАЧЕННЯ ГЛОБАЛЬНОГО СУСПІЛЬСТВА ТА ГУМАНІТАРНИХ НАСЛІДКІВ

Анотація. У сучасному світі, де геополітичні конфлікти та військові сутички

набувають все більшої актуальності, міжнародна допомога, як невід'ємна частина міжнародних відносин, набуває особливого значення. Україна, що опинилася в центрі повномасштабної війни з Росією на початку 2022 року, стала об'єктом уваги як з боку світових лідерів, так і суспільства в цілому. Метою дослідження є аналіз впливу і значення міжнародної допомоги, наданої Україні в період воєнних дій, а також її гуманітарних наслідків. Для досягнення поставленої мети було використано комплекс взаємодоповнюючих методів наукової ідентифікації економічних процесів та явищ: історико-логічний, порівняльний і статистичний аналіз, а також інформаційний, процесний та інституційний підходи. Головним завданням цього дослідження є ретельний аналіз особливостей іноземного фінансування та іншої допомоги, спрямованої на підтримку економічної стабільності України та прискорення завершення конфлікту в країні. Актуальність теми визначається гуманітарною необхідністю, політичним контекстом, економічними викликами та геополітичними наслідками конфлікту. Дослідження має аналітичний характер, а його результати сприяють кращому розумінню впливу міжнародної допомоги на Україну в умовах конфлікту та підкреслюють важливість гуманітарних аспектів в цьому контексті.

Ключові слова: міжнародна допомога, глобальне суспільство, гуманітарні наслідки, воєнний період.

Problem statement. The main problem highlighted in the study is the issue of Russia's war against Ukraine and its destructive consequences. It has a significant impact on both ordinary citizens and the functioning of the state as a whole, and creates challenges that are difficult to overestimate.

The study of important problems and features of international financial support of the Ukrainian economy in the conditions of the military conflict becomes an urgent necessity, since the crisis caused by the Russian invasion threatened all spheres and branches of the economy. The war led to a serious decrease in economic activity in Ukraine and reduced the solvency of the population. This was reflected in the country's financial flows and budget indicators. The budget deficit has grown to critical levels, and there is a real threat of excessive growth of the public debt.

Restoring stability and well-being in Ukraine requires joint efforts and support from the whole world.

Relevance of the chosen topic. The relevance of this topic is due to an extremely difficult period in the history of Ukraine, which is connected with the aggression of Russia and its invasion of the territory of the former. Ukraine faced the difficult task of maintaining stability and protecting its territory and population. In the context of a full-scale Russian-Ukrainian war, international aid becomes part of a broader debate about global security, the moral obligations of countries, and how global society can deal with humanitarian crises.

Analysis of recent research and publications. Many theoretical and practical aspects of the functioning of international financial institutions are considered in the context of the sustainable development of the world economy and in the conditions of a crisis in order to prevent or mitigate the consequences caused by man-made or environmental factors. However, an important but understudied direction for domestic science is the problems of international assistance to the country during a military conflict.

Analysis of the influence and significance of international support provided to Ukraine during the war, as well as its humanitarian consequences, is the subject of research by both domestic and foreign scientists such as: V. Naumenko, M. Rippa, L. Kurnosenko, M. Malskyi, O. Bilorus, M. Matsyaha, M. Vasylieva, N. Stukalo, I. Hominich, K. Rybalchenko, V. Geets, L. Londar, D. McDowell, T. Porter and F. Lessambo. To achieve the goal of the article, it is also suggested to refer to the works of outstanding thinkers and economists of all times, such as David Ricardo, Friedrich August von Hayek, Joseph Schumpeter, Walter Jucken and Reinhard Zelten.

David Ricardo, a classical economist, in his theory of absolute advantages, emphasized the importance of international trade as a source of mutual benefit for countries. In relation to Ukraine, international aid can be seen as a form of trade, where states provide resources and support in exchange for other services or benefits.

Theories of innovation presented by Joseph Schumpeter emphasize the importance of investment in new technologies and knowledge to stimulate economic growth. Yes, the Ukrainian Solidarity Fund is an important tool for providing financial assistance and development of Ukraine. Thanks to the generosity and support provided by the European Council, USF gets the opportunity to actively accumulate resources within the framework of the granted grants, which will affect the results of significant innovative initiatives.

In the perspective of the next few years, the funds collected by the fund can be directed to finance the needs of state authorities and defense efforts, as well as citizens, in particular in the areas of food, housing and health care. Such a measure will help strengthen the country's stability in the face of geopolitical challenges and ensure the safety of citizens.

In the long term, the collected funds can become a source of large-scale investments in the recovery and development of the economy of Ukraine, which will contribute to the creation of new jobs and increased economic activity.

Friedrich August von Hayek, one of the leading representatives of neoclassical economic thought, and Walter Jucken, a representative of the anarcho-capitalist school, called for minimal state intervention in the economy. In the context of this study, this point of view can be interpreted as supporting the idea that aid should be provided without unnecessary restrictions and conditions in order to ensure maximum freedom of choice for the Ukrainian people [2, p.6].

It is worth noting that a scientific analysis of the motivational foundations of international aid is indeed key to understanding this complex topic. It should be taken into account that opinions regarding the purpose and motivation of donors, providing international aid, differ among domestic scientists. This may be the result of different approaches and beliefs.

V. Geets notes the positive impact of international financial support for countries in a post-crisis state. Each support program is unique but focuses on important aspects, including population support, restoration of systems and institutions, economic reforms, reconstruction and infrastructural development.

Analyzing the situation regarding the provision of international financial support for carrying out structural reforms in Ukraine, L. Londar also highlights the extremely positive experience of Ukraine's cooperation with international partners.

F. Lessambo, within the framework of the study of international financial institutions, pays considerable attention to the impact of financial globalization on the modernization of the world financial system and carefully analyzes the changes that have taken place in the world economy as a result of this complex process. On the one hand, the processes of financial globalization contributed to the strengthening of the financial expansion of developed countries, which ultimately led to the growth of their influence on world financial markets. Liberalization of foreign economic relations and increased capital mobility contributed to an increase in the volume of international investments and the turnover of financial assets.

On the other hand, financial globalization has also led to a weakening of state control over the functioning of developing countries' own finances. This can have negative consequences, such as reducing the resilience of these countries to global financial crises. In addition, high levels of public debt may create a risk of loss of sovereignty for these countries, as they may find themselves dependent on international creditors.

Purpose of the article. The purpose of this article is to analyze the impact and significance of international aid to Ukraine during the war period, particularly in the context of global society and the humanitarian consequences of the conflict. In order to achieve the set goal, the following tasks must be solved:

- Analysis of the role and contribution of global society in providing aid to Ukraine, in particular the positions of countries and international organizations.
- Determination of the humanitarian consequences of the military conflict for Ukrainian society.

Consideration of the volume and effectiveness of international aid and its impact on the processes of recovery and peace in Ukraine.

Presentation of the main research material and results obtained. In the current realities of global development, the international community actively supports developing countries in carrying out socio-economic and political reforms. For countries with limited internal resources, international aid is an important determinant in achieving their sustainable independent development as states and complements their own efforts in mobilizing internal resources.

Within the framework of the above, it is worth emphasizing that in today's realities, global society is becoming an increasingly important aspect of international relations and is defined as an association of people and organizations around the world that share common values, interests, and the goal of common development.

International aid, as one of the key components of the modern global community, is defined by a network of cooperation and interaction between states and international organizations with the aim of providing material, financial, technical and humanitarian support to developing countries, experiencing crisis situations, or facing other geopolitical and economic problems, on under certain conditions.

Global society is shaped by a number of key factors. Firstly, it is the convergence of cultures, technological progress and the growth of international communications. Its role in the field of international aid as a catalyst for humanitarian initiatives, which includes non-profit organizations, activists, philanthropists and citizens working for the benefit of developed and developing countries, is extremely important. The public and non-profit organizations demand

transparency, accountability, effectiveness of relevant programs, accounting of costs, ensuring access to assistance for the most vulnerable population groups and ensuring compliance with human rights.

The effects of the influence of global society in the context of international aid are multifaceted. First, it is the mobilization of resources to solve crisis situations, and secondly, it is the provision of financial support in the form of medical resources and necessary materials.

In addition, global society contributes to the development of coordinated approaches to solving global problems. With the help of associations such as the UN, these initiatives are coordinated and interact to solve global issues, such as adapting to climate change or fighting global pandemics.

Analyzing scientific research in the field of international aid, it is impossible not to pay attention to important methodological aspects that affect the development of this field. It is worth noting that Ukrainian science uses general scientific and specialized approaches, such as empirical and theoretical research, as well as legal, political and economic methods. In particular, economic tools, such as financial forecasting and modeling, make it possible to assess the impact of international aid on the economy of donors and recipients. However, Ukrainian researchers often lag behind in the use of specialized methodological tools that are already widely used in world science. For example, game-theoretic models can be useful for analyzing the interaction between donors and recipients of international aid and determining optimal strategies for involving the private sector and civil society [1].

From the author's point of view, international relations in the context of the methodology for the optimization of international aid processes require a complex and orderly approach, innovations and an appropriate model. It is appropriate in this direction to create an integrated methodological platform that would combine general scientific methods (empirical and theoretical research) with specialized methods (legal methods, political science approaches and methods of economic analysis) and would be accessible to researchers, government officials, public organizations and donors from in order to exchange information and analyze data to monitor the implementation of international aid projects, identify problem areas and adjust the aid strategy in real time. This process should be accompanied by the implementation of modern data analysis methods, such as artificial intelligence, to predict the effectiveness of international aid programs and identify new opportunities for optimization, as well as the active involvement of all interested stakeholders, including governments, businesses and the academic community, in the process of developing and implementing the model .

The model of integrated analytics of international aid would contribute to the improvement of management and understanding of the nuances of this process, which should increase the effectiveness and duration of development programs, as well as reduce the risks of conflicts and inconsistencies between participants.

According to the concepts of the 70s of the 20th century regarding the restructuring of international economic relations and the creation of a new economic order, developed industrial countries play a key role in providing aid to recipient countries. It should be noted that the respective donor countries mainly provide assistance at the bilateral level, noting their political interest in preserving their status quo in the international arena [3].

Some researchers argue that international aid provided by benevolent states does not always express good intentions, but can be a real political conjuncture. Donors can use aid to influence the situation of recipients, in particular to support their own geopolitical interests. Such a view arises against the background of skepticism and criticism regarding the effectiveness of aid in the development of transitional societies.

In this context, it can be noted that some researchers attribute international aid to potential political corruption, emphasizing the possibility of its use to impose one's own conditions and achieve political goals. It is appropriate to take into account that such an approach can be approved under the influence of past historical events and differences in the interpretation of international relations.

Additionally, an important aspect of research is the work of L.V. Kurnosenko, which examines the impact of the war on the economy of Ukraine and problems related to the financial assistance received by the state [4]. The author emphasizes the role of financial organizations that supported Ukraine from the first months of the war, in particular, the International Monetary Fund and the World Bank.

This makes it an important tool for companies, states and investors, and contributes to economic growth and development in the global arena [5, p.37]. However, with this method of attracting funds, it is necessary to carefully assess all the conditions and risks associated with this type of financing, and to develop a debt management strategy to ensure the stability of the state's finances.

The humanitarian consequences of international aid for Ukraine are also undeniable. They can have a positive impact on economic development, stability and innovation in the country, as well as ensure the humanitarian needs of the Ukrainian population. Different economic theories in this aspect also offer different approaches to international aid, and their unification can help to cope with the challenges that Ukraine faces [6, p.17]. Corresponding interpretations are indeed reflected in practice under the current situation, because international aid contributes to the provision of humanitarian needs of the Ukrainian population, including food, medical services and housing [7, p.22].

Russia's military aggression led to serious economic losses for Ukraine. Due to the reduction in the supply of many goods and the disruption of supply chains, the prices of consumer goods for 2022 increased by more than 30%, and GDP showed a downward trend by more than 35% [8]. More than 30% of enterprises have ceased their activities, and 45% of those remaining are only partially operational [9]. This led to a significant increase in the unemployment rate and depressed the precarious economic situation in the country.

Ukraine received more than 113 billion euros from 40 donors during the war. The European Union allocated 52 billion euros, the United States - 48 billion euros for military, financial and humanitarian aid [10].

After a careful analysis of the ratings of the provision of military assistance, the author singled out certain countries whose contribution to the security of Ukraine is impressive in terms of volume and quality (Fig. 1).

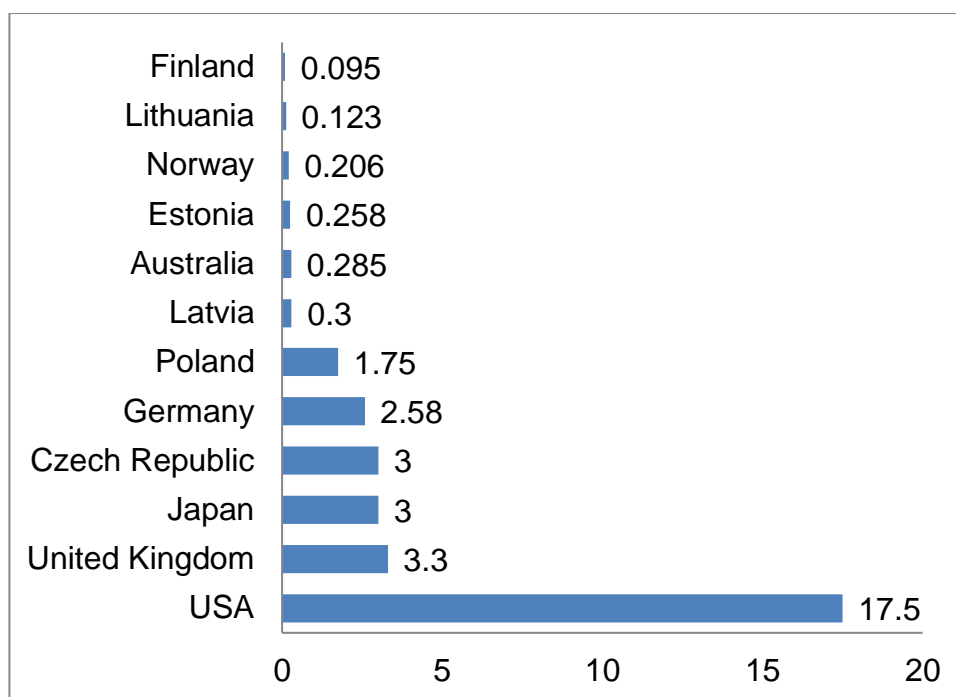


Fig. 1. Military aid to Ukraine during the war, billion dollars USA

Source: compiled by the author based on data

A country that showed itself as a true example of solidarity and support in difficult times was Poland, which accepted millions of refugees, providing housing, clothing, medicine and financial assistance, as well as equipment and uniforms, for a total of 5.1 billion euros. Poland has become an important transit node for the supply of weapons [11].

Great Britain made a significant financial contribution to Ukraine's budget and provided extensive military aid, including the training of 10,000 servicemen [12].

Germany provided significant support to Ukraine in such difficult times. Back in 2014, due to the beginning of the anti-terrorist operation, the non-commercial association "Blue Cross" was born in the city of Cologne. Currently, it provides significant assistance to Ukraine in the form of standardized medical kits, rescue backpacks for doctors, emergency medical aid, etc. The Baby Package project helps internally displaced women by delivering essential items for newborns. Also, with the help of the "Give Warmth" project, the association supplies warm things and equipment for hospitals and kindergartens [13].

In addition, "Blue Cross" actively conducts informational and cultural work, organizing events, panel discussions and conferences with the aim of drawing attention to the problems of Ukraine and Russian aggression.

The United States of America, as a world leader, has also provided extensive aid to Ukraine, including various types of weapons, transportation, defense systems, and medical supplies, totaling more than 44.5 billion euros. The USA leads the list of countries that provide important support to Ukraine [14].

According to the Ministry of Foreign Affairs, the contribution of international organizations, in particular the United Nations, in providing assistance to Ukraine is significant. During the past year, the UN allocated more than 4.5 billion dollars. for humanitarian support.

Also, within the framework of the new Action Plan of the Council of Europe for Ukraine for the period 2023–2026, the allocation of approximately 50 million euros is provided for projects aimed at recording Russia's war crimes and minimizing the humanitarian consequences of Russian aggression. Among these projects, an important place is given to the protection of the rights of internally displaced persons and the rehabilitation of war victims.

One of the significant problems provoked by the Russian-Ukrainian war is the mass migration of the population. At the initial stages of the conflict, the flow of migrants from Ukraine was directed mainly to European countries. However, this problem has become truly global, and in the future, under the influence of the food crisis, its consequences may cover the whole world. International financial organizations and donors have undertaken to allocate an extraordinary amount - about 10 billion euros - to support temporarily displaced Ukrainians, both inside the country and abroad [15].

Ukrainian agriculture is going through no less difficult times, caused by circumstances that go beyond the usual challenges facing farmers. War, occupation and changes in weather conditions led to a significant reduction in grain production by 37% in 2022 [16].

The most important tasks for the support of agricultural producers at the present time are obtaining state and international soft loans and expanding export opportunities.

The war in Ukraine is a humanitarian catastrophe and an environmental risk. According to the data of the monitoring of the ecological situation in Ukraine for July 2022, it can be concluded about the significant impact of hostilities on the environment, which poses a threat to future generations. International organizations cannot ignore the corresponding consequences of a global nature, because the results of the environmental aspect of the war will be felt not only by Ukraine, but also by neighboring countries.

The European Union announced the creation of the Trust Fund for Solidarity with Ukraine. It is important to use these funds as effectively as possible and to take into account the environmental requirements of the EU for the restoration of industrial and infrastructure facilities. One of the expedient measures in this direction should be an observation council made up of representatives of donor countries to monitor and prevent corruption. Wasteful price subsidies should be replaced by more targeted subsidies for vulnerable segments of the population, and the economic reconstruction program should be developed with an emphasis on the long-term effectiveness of "green" technologies. The priority is environmental control over investments and cooperation with countries that use renewable energy sources.

Joint financing of eco-industrial parks in post-war affected regions can be an innovative solution that will promote sustainable development, shared use of resources and effective waste management based on the principles of circular economy.

So, at this stage of the research, it is worth highlighting and emphasizing both the positive and negative consequences of international state aid. So, first of all, this is providing the population with the necessary material values, which suffered from the conflict and the unstable economic situation in the country.

Political support, which leads to the strengthening of Ukraine's political position on the international arena, as well as military aid in the form of weapons and training, is becoming important. International aid also draws the attention of the world community to the problems of Ukraine and raises awareness in this direction.

In contrast, international aid entails such results as: geopolitical risks in the form of tensions between different countries and international blocs; insufficient control over the distribution of aid, which promotes corruption; social consequences in the form of psychological problems for the population, in particular injuries, depression and the breakdown of social structures.

From the author's point of view, the most unpredictable and unmanageable consequence for Ukraine may be dependence on foreign aid, which will lead to a loss of control over its own policy and sovereignty. In this context, some economists compare the current situation in Ukraine with the experience of South Korea in the 1950s and 1970s.

Currently, foreign aid already covers half of Ukraine's budget expenditures, which is essentially similar to the situation in South Korea in the past. Long-term crediting of investment projects under state guarantees can become the main financial instrument for post-war reconstruction, in particular because this source of financing is more accessible than foreign direct investment.

Regarding reparations from Russia, which took place in the relevant experience of South Korea, the situation in Ukraine is much more complicated. Frozen Russian assets remain inaccessible, and the prospects of their transfer to Ukraine are almost zero due to the lack of an appropriate legal mechanism. The possibility of obtaining reparations may appear through the decision of an international court, but for now efforts are directed to the criminal prosecution of the crime of aggression.

Conclusions. Thus, despite significant efforts in the field of international aid, the challenge remains to effectively allocate resources, fight corruption, and ensure long-term socio-economic sustainability. However, it is important to recognize that international aid remains an integral part of the global community and can make a significant contribution to improving the lives of millions of people in developing countries.

Finally, the analysis of the impact and significance of international aid to Ukraine during the war period emphasizes the importance of such support both for Ukraine and for global society as a whole. This case has enriched the understanding of how international relations, economic theories and humanitarian aspects are intertwined in periods of crises and military conflicts. Several key conclusions can be drawn from it.

First, international aid has a significant impact on the economic recovery of a country that has experienced an armed conflict. Ensuring financial and economic stability through investment, credit and innovation promotes rapid recovery, which in turn can mitigate the humanitarian consequences of war.

Second, international aid plays an important role in reducing the suffering of the civilian population. Providing humanitarian aid in the form of food, medical care and shelter can save lives and provide minimum conditions for the survival of those affected by the conflict.

Third, the importance of international aid reaches the limit of direct effects and influence. It demonstrates solidarity and support of global society in times of crisis, asserting the importance of cooperation and humanitarian values.

Thus, international aid to Ukraine during the war period leaves a deep mark both in the economic and humanitarian spheres. Unfortunately, in our time we have vivid examples-reminders of the importance of global solidarity and the urgent need to act in

moments of crisis to alleviate the suffering of the population and support each other on the road to recovery and peace.

References

1. Plosky K. V. International technical assistance as an interdisciplinary scientific and practical problem / K. V. Plosky // State administration: theory and practice. - 2013. - No. 2. - P. 129-139. - Access mode: http://nbuv.gov.ua/UJRN/Dutp_2013_2_17.
2. Burlyuk, O., & Ostrouch, L. (2019). Foreign Aid in Ukraine: Directions and Challenges. *Journal of Contemporary European Studies*, 27(4), 66-83.
3. Napryklad, Myroslava. International official assistance in the process of global development [Text] / Myroslava Napryklad // Problems of globalization and regionalization of the world economy: coll. theses add. International science and practice Internet Conf. study and young scientists [m. Ternopil, April 14-15. 2016] / - Ternopil: TNEU, 2016. - P. 101-103.
4. Kurnosenko L. V. Problems and peculiarities of international financial support of Ukraine in war conditions. *Publ. upr. reg. development* 2022, No. 1 - C.255-274 - URL: <https://pard.mk.ua/index.php/journal/article/view/295>.
5. Tsygankov, A. P. (2018). *Russia's Foreign Policy: Change and Continuity in National Identity* (4th ed.). Rowman & Littlefield.
6. Andersen, A. F., & Henten, A. (2017). The EU and Ukraine: Beyond Association? *European Foreign Affairs Review*, 22(1), 91-108.
7. Das, D. K. (2017). Conflict and Cooperation in the Donbas Region of Ukraine: A Case of Complex Interdependence. *Europe-Asia Studies*, 69(8), 81-94.
8. Consequences of the war. *Ukrinform*. Website. URL: <https://www.ukrinform.ua/rubric-economy/3533894-naslidki-vijniv-ukraini-inflacia-cogoric-perevisit-30.html>.
9. Shmyhal: Ukraine's GDP will fall by at least 35% in 2022. *Finbalance*. Website. URL: <https://finbalance.com.ua/news/shmyhal-vvp-ukrainskyi-v-2022-rotsi-vpade-ne-menshe-nizh-na-35>.
10. Dykalenko M. Countries by the amount of military aid provided to Ukraine - rating / M. Dykalenko. URL: <https://thepage.ua/ua/economy/vijskova-dopomoga-ukrayini-vid-riznih-krayin-rejting>.
11. Ilu uchodźców z Ukrainy jest w Polsce. *300gospodarka*. Веб-сайт. URL: <https://300gospodarka.pl/news/uchodzcy-z-ukrainy-w-polsce-liczba>.
12. Military assistance to Ukraine since the Russian invasion. *UK parliament*. Веб-сайт. URL: <https://commonslibrary.parliament.uk/research-briefings/cbp-9477/>.
13. Kuznetsova K.O. Germany's international humanitarian aid to Ukraine during the Russian aggression /Kuznetsova K.O., Chenusha Yu.S.// Business, innovations, management: problems and prospects: coll. mate. add. participation VI International science and practice conf. KPI: Kyiv 2023. P. 105-106.
14. List of US military aid to Ukraine. *Military*. Website. URL: <https://mil.in.ua/uk/articles/spysokvijskovoyi-dopomogy-ssha-ukrayini/>.
15. Stand up for Ukraine: EIB pledges additional €4 billion to support Ukrainian war refugees / EIB. 2022. – URL: <https://www.eib.org/en/press/all/2022-193-stand-up-for-ukraine-eib-pledges-additional-eur4-billion-to-support-ukrainian-war-refugees>.
16. Grain production in Ukraine decreased by 37% last year - UKAB. URL: <https://www.ukrinform.ua/rubric-economy/3675809-virobnictvo-zernovih-v-ukraini-toriskorotilos-na-37-ukab.html>.

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CONSEQUENCES OF THE SHADOW ECONOMY AND WAYS TO OVERCOME IT IN UKRAINE

Abstract. This article explores the essence of the shadow economy and its consequences for the economies of various countries worldwide, with a focus on Ukraine.
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The aim of the article is to investigate the shadow economy and its implications for Ukraine while outlining key directions for overcoming it based on the experience of foreign countries. The research employs methods of analysis, analogy, and comparison.

The essence of the shadow economy is examined as a complex socio-economic phenomenon globally and in Ukraine. The reasons for the emergence of the shadow economy in the state are analyzed, and factors contributing to economic shadowing are identified. Through empirical observation, a correlation is established between the level of corruption perception in the country and the extent of its economy operating in the "shadow."

Negative consequences of the shadow economy for Ukraine are identified, including reduced state budget revenues, increased corruption levels within government entities, weakened investment development, heightened economic disparities, and non-compliance with standards.

The article analyzes and recommends positive experiences from foreign countries regarding the main directions to overcome the shadow economy in Ukraine. These include reducing cash transactions or promoting a "cashless" economy domestically, curbing inflation rates, and improving tax legislation in Ukraine. The practical significance of the study lies in providing recommendations to overcome the shadow economy in Ukraine, aiming to increase state budget revenues, reduce corruption levels, enhance investment development, and improve the quality of public governance.

Keywords: shadow economy, corruption, factors of economic shadowing, public governance.

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НАСЛІДКИ ТІНЬОВОЇ ЕКОНОМІКИ ТА ШЛЯХИ ЇЇ ПОДОЛАННЯ В УКРАЇНІ

Анотація. У статті розглянуто сутність тіньової економіки і її наслідки для економіки у різних країнах світу і в Україні. Метою статті є дослідження тіньової економіки і її наслідки для України та окреслити основні напрямки її подолання з використанням досвіду зарубіжних країн. Для досягнення поставленої мети використано методи аналізу, аналогії та порівняння.

Досліджено сутності тіньової економіки, як складного соціально-економічного явища у світі і в Україні. Проаналізовано причини виникнення тіньової економіки в державі. Виокремлено чинники тінізації економіки. Шляхом емпіричного спостереження встановлено взаємозв'язок між рівнем сприйняття корупції в країні та рівнем економіки, що знаходиться в «тіні».

Виявлено негативні наслідки тіньової економіки для України: зменшення доходів державного бюджету, збільшення рівня корумпованості в системі державних органів, послаблення інвестиційного розвитку держави, посилення диспропорції в економіці країни, недотримання стандартів.

Проаналізовано і рекомендовано позитивний досвід зарубіжних країн, щодо

основних напрямків подолання тіньової економіки в державі: зменшення готівкового розрахунку або "cashless" у вітчизняній економіці, зменшення темпів інфляції, покращення податкового законодавства в Україні. Практична значимість дослідження полягає у наданні рекомендацій щодо подолання тіньової економіки в Україні з метою збільшення доходів державного бюджету, зменшення рівня корумпованості, посилення інвестиційного розвитку держави, покращення якості державного управління.

Ключові слова: тіньова економіка, корупція, чинники тінізації економіки, державне управління.

Problem statement. The shadow economy significantly affects all processes in society, both economic and social, in any country, regardless of its level of economic development. In all cases, this impact is negative. The presence of the shadow economy makes it impossible to conduct a comprehensive economic analysis at the macro and micro levels in the country. As a result, decision-making loses its effectiveness, and a parallel economy emerges within the state that is not subject to taxation. Disregarding and not addressing the shadow economy as an existing negative phenomenon in the country leads to subjective judgments and unreliable assessments of macroeconomic indicators in the country. The lack of efforts to combat the existence of the shadow economy leads to a violation of the economic security of the state, posing additional risks to Ukraine's existence, especially in times of military conflict.

Relevance of the chosen topic. Today, Ukraine strives for equality among European nations and the right to live by democratic values. Therefore, recognizing and highlighting the shadow economy's negative consequences and researching ways to overcome it becomes crucial.

Analysis of recent research and publications. Numerous Ukrainian and international scholars have delved into the theoretical and practical aspects of the shadow economy and the mechanisms of implementing state policies aimed at its de-shadowing.

In her research, I. V. Suprunova (Suprunova, 2021) notes that almost all countries worldwide grapple with the issue of economic processes being shadowed in the modern world. A high level of economic shadowing significantly impacts a country's image, the effectiveness of structural and institutional reforms, posing a real threat to the democratic development of the state. The moral consequences of the shadow economy are also negative, leading to distorted consciousness among people and an increase in its criminal repercussions.

Professor S. O. Koretska (Koretska, 2011) emphasizes in her studies that the "shadow" economy encompasses all types of legal production, including evasion from truthful statistical reporting, tax payments, and contributions to social development funds. The "shadow" economy, typically excluded from national statistics and not incorporated into the gross national product, hides its income from taxation.

Among foreign scholars, there exists an alternative view regarding the positive effects of the shadow economy up to an acceptable level. In his work, Wolf Schafer (Schafer W., 1984) asserts that the shadow sector can be classified as a market system where the coordination of supply and demand occurs almost frictionlessly.

Despite the conditionally positive aspects of the shadow economy mentioned, Professor S. V. Svirko and I. V. Suprunova (Svirko, Suprunova, 2020) underscore in their research that the shadow economy should be considered a threat to the budgetary security of the country. The evasion of official taxation by its subjects (both legal and natural persons), embezzlement of state property, or other direct and indirect means lead to a decrease in budgetary security in the country.

Purpose of the article. The aim of the article is to investigate the shadow economy and its implications for Ukraine, outlining key directions for overcoming it based on the experience of foreign countries.

To achieve the stated goal, the following tasks were addressed: exploring the essence of the shadow economy, examining the reasons for its emergence in the country, and determining the main directions for overcoming it by drawing on the experience of foreign countries.

Presentation of the main research material and results obtained. It is crucial to comprehend the concept and essence of the shadow economy before analyzing the researched problem. Even though the essence of the term "shadow economy" originated from ancient times, the problem itself becomes new for us in the context of market development, globalization, integration into the global economic space, and the state's economic policy towards private entrepreneurship and business in general.

Today, there are numerous interpretations of the definition of the "shadow economy. However, the economy needs more statistical data since it is not directly observed (T. Tyshchuk, 2023). The shadow economy serves as a unique indicator of the effectiveness of the state's economic policy.

The issue of the shadow economy is relevant for all countries worldwide, from the more developed ones to those still developing. For example, according to statistical data, the share of the shadow economy in the GDP of the United States, a country with one of the strongest economies globally, was 7.4% in 2021, while Ukraine's indicator was around 31% (O. Moshenets, 2022).

The shadow economy is a complex socio-economic phenomenon with a unique structure, scope, form, and hierarchy. It significantly impacts the economic situation of the population, businesses, private entrepreneurship, and the state as a whole.

Researchers and scholars often identify a range of reasons for the emergence of the shadow economy in a country, including economic, social, political, legal, historical, psychological, and socio-cultural factors (O. Kundytskyi, 2018, p. 75). However, in our opinion, all factors contributing to the emergence of the "shadow" economy can be grouped into three major categories:

1. Economic factors: high taxes, financial crises, imperfections in the privatization system.
2. Social factors: low living standards, high unemployment, low real wages.
3. Legal factors: imperfect regulatory legislation, corruption in state institutions and law enforcement structures, high bureaucratic levels, etc.

In our opinion, the corruption of state institutions and law enforcement is the critical factor contributing to the high level of the shadow economy in Ukraine. Let us examine this

reason in more detail. Through empirical observation, a correlation can be established between the level of corruption perception in a country and the level of the economy in the "shadow." For comparison, let us take several countries worldwide, using the Corruption Perceptions Index for the year 2019. The United Kingdom ranked 12th globally in the perception of corruption, Brazil 106th, Ukraine 126th, and Nigeria 146th (12). For 2019, the scale of the shadow sector of the economy in these countries was 10-12%, 17.2%, 28%, and 40-60%, respectively (J. Compton, 2019). The available data can be represented in the form of a diagram:

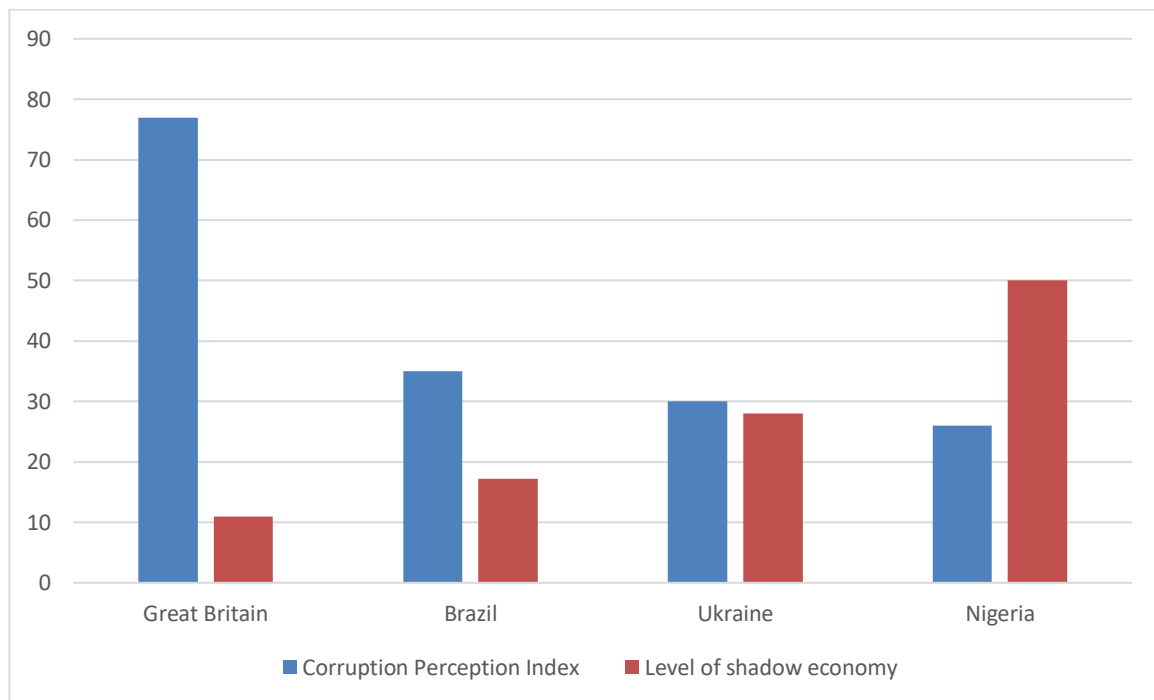


Fig. 1 Correlation between corruption perception indices and the level of the shadow economy in different countries

Source: compiled by the author on the basis of "General trends in the shadow economy (January-September 2021)", (2022)

Therefore, from Fig. 1, we can deduce a certain regularity: the higher the corruption perception index in a country, the lower the level of the shadow economy. The dependence between the level of corruption in state structures and the volume of the shadow economy is clear and inversely proportional.

In their research, the International Center for Advanced Studies identified factors contributing to the shadowing of the economy (A. Bochi, V. Povoroznyk, 2014, p. 4).

1. Inefficiency of state regulation of the economy. This involves the imperfection of legislative and regulatory systems, a lack of business trust in the state, and a high level of bureaucratization. As a result, state management lacks proper influence and is replaced by corporate bureaucratic institutions, further increasing economic activity concealment.
2. Ineffectiveness of tax administration. One of the significant factors contributing to the growth of the shadow economy is the need for more understanding among economic entities about the tax system. Additionally, businesses are burdened with high tax rates, and there is a lack of appropriate punishment for those who

evade taxes. This situation leads businesses to hide their activities and move into the shadow economy.

3. Labor market issues. Ukraine has a prevalent system of informal employment. The statement pertains to the issue of an excessive tax burden and a substandard quality of life. The scheme is straightforward: employers cannot afford to employ workers officially due to the increasing mandatory taxes. Consequently, increasing prices of goods and services would make them less competitive in Ukraine, given the current standard of living and purchasing power.
4. Imperfections in the budgetary system. It is impossible to disagree with this statement since constant violations in the distribution of state revenues are recorded in the country.
5. Imperfections in the judicial and law enforcement system. This involves the absence of punishment for economic criminality, which breeds mistrust and stimulates concealment.

To assess the consequences of the presence of the shadow economy in Ukraine, let us take a closer look at its volumes. During a war, it is challenging to obtain accurate data for business statistics. Therefore, let us examine the scale of the shadow economy during the period 2019-2021.

According to the latest available data from the Ministry of Economy of Ukraine, we can analyze the dynamics of the shadow economy.

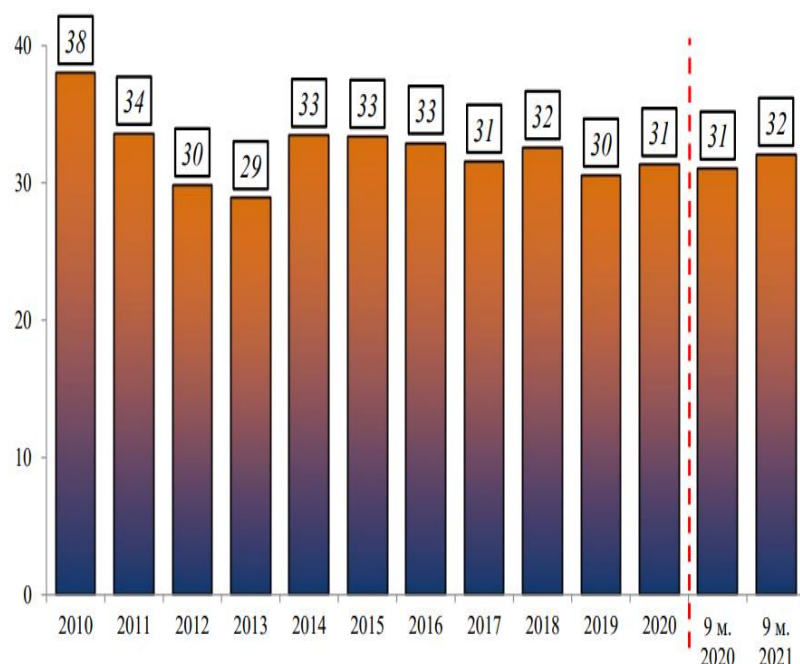


Fig. 2. Level of the shadow economy by the monetary method, % of official GDP

Source: compiled by the author on the basis of "General trends in the shadow economy (January-September 2021)", (2022)

Looking at Fig. 2, we can observe that in 2019, despite the onset of the pandemic and partial business closures, there was a tendency to decrease the volumes of the shadow economy. However, analyzing the experience of previous crises, an increase in the level of the shadow economy was expected, as businesses tend to reduce the risk of resource loss in times of significant uncertainty. As anticipated, there was a noticeable decline in business

and investment activity (both domestically and internationally). Economic losses increased significantly, leading to a shift towards a slight increase in shadow business activity in 2020-2021.

In Ukraine, around a quarter of the GDP is in the "shadow" economy, negatively impacting the country's overall economic performance. Addressing this phenomenon is crucial to building a strong economy.

The consequences of the shadow economy have a significant negative impact on Ukraine. Based on research, the following consequences can be noted (N. M. Kraus, K. M. Kraus, V. S. Shevchuk, A. O. Panchenko, 2020):

1. Reduction in state budget revenues. Non-payment of taxes, fines, and fees by businesses engaged in shadow activities leads to a deficit of funds in the country's state budget. As a result, there is a need for more funds for financing state structures, pension and subsidy payments, defense funding, and more.
2. Increase in corruption levels in state institutions. Since economic entities must conceal their shadow activities, the number of cases of bribes paid to state institutions to continue their entrepreneurial existence increases. Additionally, the increase in corruption and crime leads to a rise in nepotism within state structures.
3. Weakening of the state's investment development. Businesses involved in the shadow economy do not contribute to developing the country's scientific activities. The consequence of this phenomenon is the lag in the scientific and innovative activities of the country compared to developed countries.
4. Intensification of economic disparity in the country. Shadow business primarily develops in the service sector, creating economic disparities between the production and service sectors.
2. Non-compliance with standards. Businesses operating informally must adhere to legal and quality standards, benefiting society.

At the same time, it should be noted that the shadow economy positively impacts the well-being of individual economies and consumers. This is because the shadow economy emerges when the state, on its own, cannot satisfy societal demand. The state cannot keep up with the dynamic needs of society. Therefore, the shadow economy serves as a response by entrepreneurs and consumers to the state's inability to provide necessary goods. As the market system always tends towards equilibrium during a state or economic crisis, shadow economic activity is one of the instruments balancing supply and demand.

In times of significant economic recession, when the state cannot provide social assistance and protect the population from unemployment, the shadow sector provides protection and refuge for those who have lost their jobs. The informal sector allows this category of the population to generate income to ensure their well-being.

Combating corruption and improving the legal system are fundamental to overcoming Ukraine's shadow economy. For example, reforms in the judicial system, improvement of mechanisms for monitoring and supervising the activities of government structures, and the implementation of transparency in all areas of public administration are essential. One of the critical factors for improving the situation by de-shadowing the economy is increasing the population's income and improving the socio-economic status of citizens. Achieving this is possible through the development of the real sector of the economy and the creation of new jobs. One of the prerequisites for the increase in the shadow economy is the rise in

unemployment: the population lacks official jobs, and people must seek unofficial employment opportunities. Therefore, an effective way to overcome the shadow economy is to increase job opportunities and improve the quality of life for the population.

Analyzing the reasons and consequences of Ukraine's shadow economy, it can be concluded that the government should implement new legislative initiatives and regulate the activities of the shadow business. The Ukrainian government needs to take several measures to de-shadow the country's economy, from creating a more favorable environment for doing business to reducing corruption in government bodies.

Incorporating international experience into domestic realities is also crucial.

1. Reduction of cash transactions or "cashless" in the domestic economy. Ukraine should explore implementing a cashless economy, following the examples of the United States, Switzerland, South Korea, and Estonia. Ernst & Young conducted a study on the impact of "cashless" on the growth of the shadow economy. It was discovered that a 1% increase in card payments at terminals as a percentage of GDP leads to an average reduction of 0.037% in the passive shadow economy (Reducing the Shadow Economy through Electronic Payments, 2016). For Ukraine, in absolute terms, this represents significant funds. Reducing the volumes of the shadow economy, where cash resources operate, will contribute to the overall economic growth because non-cash funds will remain in the economy and fulfill their functional role.
1. The National Bank of Ukraine has already made initial statements regarding the potential transition to "cashless," noting that the spread of cashless payments will lead to payment transparency (National Bank of Ukraine, 2023). This is expected to stabilize the economy and promote economic growth.
2. Another path to de-shadowing the Ukrainian economy is to reduce inflation rates: Due to high inflationary expectations, the population tends to save money, and the demand for cash in banks increases.
3. Money that is not in circulation does not have the opportunity to work to benefit the economy and its development. The most effective measure in this case would be to reduce the amount of money in circulation.
4. Improvement of tax legislation. Ukraine's tax legislation is one of the most complex in the country's legal system. At the same time, there is a tendency towards its inefficiency and instability, and a quarter of the shadow economy as a percentage of the country's total GDP is a vivid example of this. Taxation is still regulated by sub-legal normative documents, resolutions of the Cabinet of Ministers, and decrees of the President of Ukraine. Ukraine's tax legislation should be transparent, clear, and unambiguous. This will increase domestic entrepreneurs' confidence in conducting business and enhance foreign investors' attraction. Businesses evade tax payments because they do not see the results of these revenues, and there needs to be more trust in government authorities in society.

Speaking about improving and transparency of Ukraine's tax system, it is impossible not to touch upon corruption. Currently, corruption in government authorities remains one of the urgent problems for Ukrainian governance. The perception of corruption in Ukraine remains relatively low. This problem remains relevant for both domestic businesses and foreign investors.

The main directions for combating corruption that the state should undertake include:

1. It ensures transparency in the functioning of all instances of the judiciary, from regional courts to the Constitutional Court of Ukraine.
2. Transparent and effective operation of the Unified State Register of Declarations. Electronic declaration is currently the primary method for monitoring the administrative apparatus. The discipline of declarants in the managerial circle will increase the efficiency and cleanliness of government work and enhance society's trust.

Achieving transparency in the tax system and combating corruption requires comprehensive reforms in legislative and institutional frameworks. This includes simplifying tax legislation, ensuring stability, and implementing effective anti-corruption measures. The state's commitment to transparency, accountability, and the rule of law will contribute to a more favorable business environment and attract domestic and international investments.

Ensuring the effective functioning of institutions to combat corruption to increase control over corrupt entities.

Conclusions. Analyzing the shadow economy in Ukraine, it can be concluded that the leading causes of shadowing are corruption of state authorities, bureaucratization of the state apparatus, ineffective tax policy, complex tax legislation, and economic crisis. One of the main determinants of shadow economy formation is not so much high taxes as the inefficient use of budget funds.

International experience can be helpful in the domestic economy. It is essential to understand that Ukraine is actively integrating into the global economic environment, so it is suitable to adopt foreign experience and adapt it to domestic realities. The government's priority measures to counter the shadow economy should be the fight against corruption. Unfortunately, corruption is a significant hindrance to both socio-economic and political development. The state is obliged to do everything possible to reduce corruption in state structures at all levels.

The rich experience of Western countries provides grounds to believe that the shadow economy can be fought and the situation controlled. An effective taxation system, coordination of law enforcement and security agencies, proper functioning of institutions to control and audit economic and entrepreneurial activities, trust in government and courts, and transparent and understandable tax legislation will help combat the scale of the shadow economy.

In general, economic shadowing is characteristic of all states, both with a more developed economy and a less developed one. The main question lies in its scale and methods of combating. The Ukrainian government should take stringent measures to reduce the share of shadowing and stabilize the economy.

References

1. Non-cash payments. (2023). National Bank of Ukraine. Retrieved from: <https://bank.gov.ua/ua/payments/nocash>
3. Bochi A. & Povoroznyk V. (2014). Shadow economy in Ukraine: causes and ways to overcome. International Center for Policy Studies. Retrieved from: https://icps.com.ua/assets/uploads/files/t_novaekonom_kaukra_ni.pdf
4. General trends in the shadow economy (January-September 2021). (2022). Ministry of Economy of Ukraine. Retrieved from: <https://www.me.gov.ua/Documents/Download?id=b1583037-ecbd-462a-a2f1-1c798b588c6d>

5. Koretska S.O. (2011). "Shadow" economy: consequences and methods of overcoming. Investments: practice and experience. № 20. C. 15-18.
6. Kraus N.M., Kraus K.M., Shevchuk V.S., Panchenko A.O. (2020). Shadow economy in Ukraine: causes, scale and consequences of development. Retrieved from: https://elibrary.kubg.edu.ua/id/eprint/32816/1/Kraus_Tinova_Ekonomika_Ukraina_2020.pdf
7. Kundyttskyi OO (2018). Shadow economy: the essence, causes and consequences of existence / O. Kundyttskyi & O. Senyshyn. Modern economics. № 10. C. 70-75. Retrieved from: http://nbuv.gov.ua/UJRN/modecon_2018_10_14
8. Moshenets O. (2022). Economic development: education against the "shadow". LB.ua. Retrieved from: https://lb.ua/blog/olena_moshenets/523843_rozvitok_ekonomiki_osvita_proti.html
9. Svirko, S. & Suprunova, I. (2020), "Shadow economy as a threat to budget security: directions of public administration", Derzhavne upravlinnya: udoskonalennya ta rozvytok, [Online], vol. 8, available at: <http://www.dy.nayka.com.ua/?op=1&z=1735>
10. Suprunova IV (2021). State policy in the field of de-shadowing of the national economy as a structural component of state security [Text]: monograph / IV Suprunova. Zhytomyr: Publishing house "Buk-Druk" LLC. 340 c.
11. Tyshchuk T. (2023). What is the shadow economy and how much does it "steal" from GDP? Kyiv School of Economics. Retrieved from: <https://kse.ua/ua/community/stories/shho-take-tinova-ekonomika-i-skilki-vona-krade-vid-vvp/>
12. Compton J. How the shadow economy moves markets. (2019). *moneyweekuk*. Retrieved from: <https://moneyweek.com/513158/how-the-shadow-economy-moves-markets>
13. Corruption Perceptions Index - Explore Nigeria's results. (2019). *Transparency.org*. Retrieved from: <https://www.transparency.org/en/cpi/2019/index/nga>
14. Reducing the Shadow Economy through Electronic Payments. (2016). TECHICAL APPENDICES. // EY. 2018. Retrieved from: https://assets.ey.com/content/dam/ey-sites/ey-com/en_pl/topics/eat/pdf/ey-report-2016-reducing-the-shadow-economy-through-electronic-payments.pdf
15. Schafer, W. (1984), Gleichgewicht, Ungleichgewicht und Schattenwirtschaft. Schattenkoekonomie: Theoretische Grundlagen und wirtschafspolitische Konsequenzen, Gottingen, Germany.

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UKRAINIAN BANKING SYSTEM OVERVIEW: CURRENT STATE AND DEVELOPMENT PROSPECTS

Abstract. The article examines the structure of the banking system of Ukraine. The dynamics of the number of banks and branches were analyzed. A reduction in the number of banks and the number of their operating divisions has been revealed for the period from the beginning of 2015 to the present.

The main reason for the reduction in the number of operating banks was the process of reforming the banking sector of the Ukrainian economy. The result of the introduced reforms was the «cleansing» of the sector from insolvent and captive banks and an increase in the level of its financial stability. The increased stability of the banking system as a result of the National Bank of Ukraine's reforms is evidenced by its resilience and ability to perform its functions during martial law.

According to the results of the study, the following reasons for the reduction in the number of bank divisions in Ukraine are substantiated: reduction in the number of banks, reduction of costs in the post-crisis period, and an increase in the level of digitalization. Pandemic restrictions and martial law also influenced the growth of digitalization.

According to the results of the analysis of the structure of the banking system of Ukraine, a significant share of state banks was established. This situation is to some extent a result of the reforms, but it distorts the competitive environment in the industry.

Keywords: bank, banking system, specialized banks, savings banks, trust management banks, systemically important banks.

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ОГЛЯД БАНКІВСЬКОЇ СИСТЕМИ УКРАЇНИ: СУЧАСНИЙ СТАН ТА ПЕРСПЕКТИВИ РОЗВИТКУ

Анотація. У статті розглянуто структуру банківської системи України. Проаналізовано динаміку кількості банків та відділень. Виявлено скорочення кількості банків та кількості їх діючих підрозділів за період з початку 2015 р. й по теперішній час.

Основною причиною скорочення кількості діючих банків стали процеси реформування банківського сектору економіки України. Результатом запроваджених реформ стало очищення сектору від неплатоспроможних та кептивних банків та зростання рівня його фінансової стабільності. Підтвердженням підвищення стабільності банківської системи внаслідок реформ Національного банку України є збереження її стійкості та здатності виконувати функції у період воєнного стану.

За результатами дослідження обґрунтовано наступні причини скорочення кількості підрозділів банків в Україні: зменшення кількості банків, скорочення витрат у посткризовий період та зростання рівня цифровізації. На зростання рівня цифровізації в тому числі вплинули пандемічні обмеження та військовий стан.

За результатами аналізу структури банківської системи України встановлено значну частку державних банків. Така ситуація є певною мірою результатом реформ, проте спотворює конкурентне середовище в галузі.

Ключові слова: банк, банківська система, спеціалізовані банки, ощадні банки, банки довірчого управління, системно значущі банки.

Problem statement. The banking system is a complex infrastructure that includes a clearly structured and legally defined set of financial institutions, banks and regulatory authorities operating in a particular country or region and ensuring the sustainable functioning of the monetary system of that territory.

Relevance of the chosen topic. The banking system plays a key role in the functioning of the economy, providing mechanisms for the circulation of money and the investment process. It is also responsible for compliance with currency regulations, legislation on money circulation, and provides a variety of financial services, including money storage, lending, payments, currency exchange, investment and other financial services to customers, such as individuals, businesses and the government.

Analysis of recent research and publications. The development of the banking system of Ukraine is the subject of works by such scientists as L. Fedevych, M. Livdar, Y. Mezhyrytska, and O. Ruda. Krukhmal and V. Sukhonos consider the development of banking business in the digital economy, while I. Pravdykovska and N. Doroshenko studied the specifics of the sector's operation under martial law. At the same time, the current rapidly changing situation requires updating research on the structure of the banking system of Ukraine.

Purpose of the article. The purpose of the study is to assess the current state of the banking system of Ukraine and identify priority areas for improvement based on the analysis of the dynamics of its structure.

Presentation of the main research material and results obtained. The main role of the banking system is to serve the financial needs of society and maintain the financial stability of the economy. This role is fulfilled through a number of key mechanisms, such as depositing money and maintaining personal accounts, lending, financial intermediation, monitoring risks and financial stability, etc. [1, p. 16].

The current banking system of Ukraine operates on two levels. The first level is the central bank, which in Ukraine is the National Bank of Ukraine (NBU), responsible for conducting a unified state monetary policy that ensures the stability of the national currency. The NBU's main role is to maintain the stability of the national currency, promote economic growth and ensure financial stability.

The second level includes commercial banks, which play an equally important role in the functioning of the banking system, as they accumulate the majority of credit resources and provide customers with a full range of financial services, including lending, deposit taking, settlements, purchase and sale and storage of securities, foreign currency, etc. [1, p. 22].

In our opinion, it is most appropriate to review the banking system by studying the dynamics of the number of commercial banks in Ukraine over certain periods. After all, this data demonstrates the influence of the National Bank of Ukraine on the regulation of commercial banks by providing or withdrawing banking licences, as well as the results of commercial banks' independent activities, which may also lead to an increase or decrease in the number of banks in the system.

Therefore, we will consider the dynamics of the number of commercial banks in Ukraine from 2015 to the present, as well as their distribution by the presence of full or partial foreign capital in them (Figure 1, Figure 2).

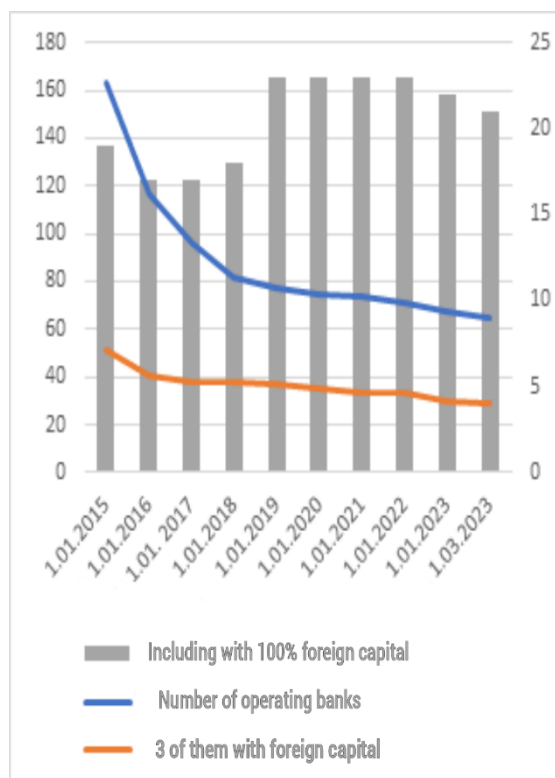


Figure 1. Dynamics in the number of banks
Source: compiled by the authors

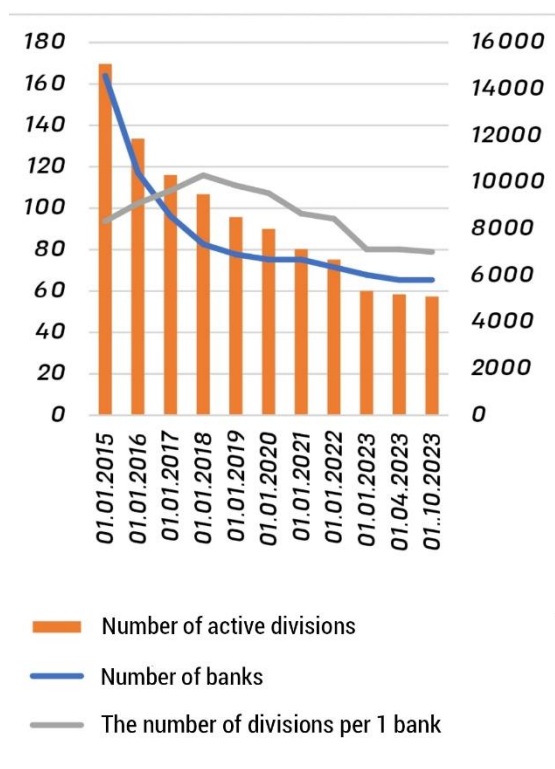


Figure 2. Dynamics in the number of branches
Source: compiled by the authors

According to the general results (Figure 1), we observe a significant decrease in the number of banks over the years, as there were 163 banks in Ukraine in 2015, and their

number dropped to 67 in early 2023. This may indicate a trend towards consolidation of the banking sector in Ukraine. We observe that the number of banks with partial foreign capital also tends to decrease, as the number of such banks decreased from 51 to 30 during 2015-2023, while the number of banks with pure foreign capital increased from 19 to 22, but it is worth taking a closer look at these changes and their possible causes.

For example, we consider the rapid decline in the total number of banks from 2015 to 2018 to be a result of the reforms of the Ukrainian banking system after the crisis and the public's distrust and uncertainty about the future of banks, which led to capital outflows from the banking market [2, p. 17].

In addition, since 2019, there has been a significant increase in the number of banks in Ukraine with 100% foreign capital, which we believe may indicate a growing interest of foreign investors in the Ukrainian banking sector at this time.

Currently, from 2020 to 2023, the number of banks continues to gradually decrease, so we propose to consider this dynamics of the number of operating bank divisions in more detail (Figure 2).

Analysing the data provided by the National Bank of Ukraine, we see that during the period of the beginning of military operations in Ukraine, the number of structural units of private and foreign banks, as well as state-owned banks and PrivatBank, has significantly decreased, which, in our opinion, is a consequence of the occupation of certain territories of Ukraine and physical destruction of the facilities.

As we can see from the data (Figure 2), the changes that have happened over this period of time are not critical and indicate the relative stability of the Ukrainian banking sector during these months. This could be due to a variety of factors, including a stable economic situation, continued interest of foreign investors, and effective supervision and regulation by the NBU [4]. However, in our opinion, it is difficult to assess the stability of Ukraine's economy at the moment due to the ongoing military operations on its territory, so the not too negative performance of the banking sector is probably a merit of the National Bank of Ukraine, which maintains the financial stability of banks and facilitates their work in such a difficult time for the country. It is thanks to the successful regulation by the NBU that we can take a closer look at the loss of two banks in the period from 2022 to the first quarter of 2023 (Table 1).

Table 1

Number of banks and structure of the banking sector from 2019 to the first quarter of 2023.

Banks	2019	2020	2021	2022	I.23
Solvent	75	73	71	67	65
Change	-2	-2	-2	-4	-2
State-owned, including PrivatBank	5	5	4	4	4
Change	0	0	-1	0	0
Foreign	20	20	20	16	15
Change	-1	0	0	-4	-1
Private	50	48	47	47	46
Change	-1	-2	-1	0	-1

Source: compiled by the authors

Table 1 shows the change in the structure of the banking sector from 2019 to the first quarter of 2023, but we will look at 2022 and the first quarter of 2023 in more detail, as we are interested in an overview of the current banking system in Ukraine. In 2022, the number of foreign banks decreased by four, but it is important to note that the decrease actually concerns only two banks. This is because the National Bank of Ukraine included two other banks with foreign capital in the category of private banks this year. Consequently, in 2022, two private banks were liquidated, namely «Forward Bank», which was declared insolvent and liquidation proceedings were initiated due to violations of Ukrainian banking legislation, and «Ayboks Bank», which was deprived of its banking licence and liquidated due to violations of banking legislation.

Overall, the table shows that the banking system of Ukraine will not suffer significant losses due to the loss of two private banks, as they together accounted for 0.2% of the sector's net assets, the loss of which is not a major impact on the banking system of Ukraine.

Considering the concept of the structure of the banking system, it is necessary to highlight the transformation of approaches to the allocation of specialised banks (Table 2).

In different periods of the Ukrainian banking system's operation, the NBU classified banks in different ways in its reporting. We will analyse the structure of the banking system of Ukraine in accordance with the approaches established by the NBU to the division of banks into groups and the legislatively established approaches to the allocation of specialised and systemic banks (before 2015 - systemically forming banks, after - systemically important banks (SIB)).

Table 2

Development of approaches to legal identification and regulation of specialised and systemically important banks in Ukraine

Law of Ukraine «On Banks and Banking Activities»			Instruction on the procedure for regulating the activities of banks in Ukraine		
version of 19.10.2001	version of 16.06.2011	version of 05.08.2021	version of 13.02.2002	version of 13.02.2012	version of 01.07.2021
1	2	3	4	5	6
«Systemically forming bank» means a bank whose liabilities amount to at least 10 per cent of the total liabilities of the banking system.		«systemically important bank (SIB) is a bank that meets the criteria established by the National Bank of Ukraine and whose activities affect the stability of the banking system»	-	-	«systemically important bank»
«Banks in Ukraine can function as	«The National Bank of Ukraine defines the types of specialised banks and the		«The NBU shall regulate the activities of specialised banks through economic standards and establish special		

universal or specialised banks»	procedure for obtaining the status of a specialised bank»		requirements for certain types of bank activities»		
«By specialisation, banks can be savings, investment, credit, mortgage, and settlement (clearing) banks»	«savings bank» «investment bank»	«savings bank»	«interregional bank» «central cooperative bank» «savings bank» «investment bank» «clearing bank» «mortgage bank»	«savings bank» «trust management bank» «mortgage bank»	«savings bank» «trust management bank»

Source: compiled by the authors

Based on the analysis of approaches and financial statements of banks, the periods of change in the division of banks into groups were determined, which allowed the following stages to be substantiated 1) post-crisis, for which the year 2010 (01.01.2011) was chosen; 2) the beginning of the banking sector reform is 2015 (01.01.2016); 3) the current stage is the latest available information as of 01.09.2021 and 01.09.2023.

It has also been established (based on the results of preliminary calculations) that only savings banks were and are actually specialised banks.

Table 3

Structure of the banking system of Ukraine according to the groups established by the NBU and legally established as of 01.01.2011

Groups of banks	Indicators					
	Quantity, units			Share by assets, %.		
	Total	Systemically forming banks	Specialised	Total	Systemically forming banks	Specialised
Group 1	17	1	-	66,74	12,63	-
Group 2	22	-	-	18,08	-	-
Group 3	21	-	-	6,35	-	-
Group 4	115	-	-	8,83	-	-
Total	175	1	-	100,00	12,63	-

Source: compiled by the authors

As shown in Table 3, there were a significant number of banks in Ukraine - 175. The largest number of banks was in Group 4 (groups were distinguished by asset size) - 115 banks. At the same time, the largest share of the banking system was in Groups 1 and 2 by value of assets. There were no specialised banks according to the statutory criteria, as banks avoided obtaining the status of a "savings bank" because it imposed additional regulatory requirements on economic standards. Only PJSC Privatbank met the systemic criteria with a market share of 12.63% in the liabilities segment. All other banks had a share in the liabilities of the Ukrainian banking system of less than 10%.

Therefore, in this period of development, banks avoid becoming specialised banks and there are a significant number of small banks, which are mostly so-called captive banks.

As a result of the reform of the banking sector of Ukraine's economy that began in 2014, as of 01.01.2016, the following results were obtained regarding the structure of the banking system of Ukraine (Table 4).

Table 4

The structure of the banking system of Ukraine according to the groups established by the NBU and established by law as of 01.01.2016

Groups of banks	Indicators					
	Quantity, units			Share by assets, %.		
	Total	SIB	Specialised (savings)	Total	SIB	Specialised (savings)
State-owned banks	6	2	-	28,09	24,64	-
Banks of foreign banking groups	31	4	1	35,67	12,05	0,23
Banks with private capital	78	2	5	36,24	24,79	22,71
Including						
Group 1	9	3	2	30,09	24,79	22,29
Group 2	69	-	3	6,15	-	0,42
Total	115	8	6	100,00	61,48	22,94

Source: compiled by the authors

As shown in Table 4, the number of banks has been declining since the beginning of the banking system reform. At the same time, approaches to identifying systemically important banks are changing. This fact, together with the reduction in the number of small banks and the growing market share of small and medium-sized banks, is leading to an increase in the number of systemically important financial institutions in the Ukrainian banking system. The number of savings banks is also growing, as household savings become a priority source of funding in a crisis.

The current structure of the Ukrainian banking system is shown in Table 5.

As shown in Table 5, the structure of the Ukrainian banking system is generally levelling out, with individual groups becoming more balanced in terms of number and market shares, as well as the number of SIBs. At the same time, the negative specifics of the Ukrainian banking system at the current stage include a significant share of the state in the sector and the share of SIBs among state-owned banks. There is also a growing trend towards an increase in the number and size of assets of specialised savings banks.

Table 5

Structure of the banking system of Ukraine according to the groups established by the NBU and legally established as of 01.10.2021 and 01.09.2023

Groups of banks	Indicators					
	Quantity, units			Share by assets, %.		
	Total	SIB	Specialised (savings)	Total	SIB	Specialised (savings)
01.09.2021						
State-owned banks	4	4	2	49,1	38,2	30,1
Banks of foreign banking groups	20	4	1	30,4	25,6	11,1
Banks with private capital	49	5	4	20,5	15,1	9,0
Total	73	13	7	100,0	78,9	50,2
01.09.2023						
State-owned banks	5	5	3	53,13	53,13	37,74
Banks of foreign banking groups	14	5	-	27,14	21,09	-
Banks with private capital	44	5	4	19,73	12,88	4,71
Total	63	15	7	100	87,10	42,45

Source: compiled by the authors

In the second quarter of 2021, 73 banks operated in Ukraine, a number that remained unchanged over the year. The share of private banks in net assets increased by 1.2 pp over the quarter, which in particular reduced the sector's concentration. The share of state-owned banks declined by 1.5 pp in Q2, but they still held more than half of net assets. According to Table 5, as of 01.09.2023, out of 63 total banks, 5 are state-owned, 14 are part of foreign banking groups, and 44 are privately owned. State-owned banks have the largest share of assets among the various categories, with 53.13% of total assets. Banks of foreign banking groups have 27.14% of total assets. Banks with private capital hold 19.73% of total assets.

Consequently, state-owned banks hold a significant share of the market in terms of assets. Foreign-owned banks also make a significant contribution to the financial market. Banks with private capital, although smaller in number, are still an important player with significant assets.

The crisis in the Ukrainian banking system in 2014-2016 confirmed the impact of banks' internal business models on their financial stability. For example, among the insolvent and fraudulent banks withdrawn from the market, local private financial institutions associated with industrial business groups and pursuing a risky policy of lending to related parties at the expense of individuals, as well as various kinds of captive banks with an opaque ownership structure, were totally dominant. It has been established that the configuration of the banking system in terms of key parameters such as ownership structure, asset size, or business strategy affects its risk profile. Further monitoring of the business models of Ukrainian banks remains extremely important to develop an understanding of this concept of market structuring, to measure the impact of external shocks on different types of banks, and, finally, to proactively identify and assess the extent of systemic risk associated with internally unstable banking strategies that may be inherent in a significant number of market participants.

Despite the relatively stable situation at present due to the regulation of the banking sector, according to the National Bank of Ukraine's research, there are a number of monitored systemic risks to the banking system, such as asset shifting, a significant level of dollarisation, a high share of state capital in the banking sector, etc.

However, at present, the main risk to all socio-economic systems in the country is war. Therefore, in our opinion, for a full review of the Ukrainian banking system, it is worth considering the situation also taking into account the ongoing military operations in Ukraine.

On 24 February 2022, after the introduction of martial law in Ukraine, the National Bank of Ukraine introduced certain restrictions on the banking system, such as restrictions on cross-border capital flows and fixing the exchange rate, and a ban on banks paying dividends [7, p.151]. The NBU also simplified a number of requirements for banks' operating activities and did not apply penalties for violations of reporting requirements if such violations occurred after 24 February, and such easing, in our opinion, partially helped some banks to survive in such a difficult period and was reflected in the charts by the loss of only minor banks in Ukraine with a small percentage of the sector's net assets.

At the moment, the Ukrainian banking system is holding the financial front, of course, there is no capital increase, but there is no capital outflow either, and the capitalisation of the Ukrainian banking system is still high.

As a result of Russia's invasion of Ukraine, banks are expected to revise their lending policies and improve their risk assessment in granting loans. This is due to the fact that the military conflict has suspended the downward trend in the number of non-performing loans in the country's banks [8, p.55]. The National Bank of Ukraine also plans to monitor asset quality in 2023 to clarify the ways banks can actually assess the risk of lending.

Of course, the banking system of Ukraine has many prospects for development, such as the development of international cooperation, further consolidation of banking institutions through mergers and acquisitions, improvement of the legislative framework, increasing the responsibility of commercial bank owners, etc. [8, p. 26], however, we are sure that one of the most important areas of improvement is currently digitalisation, because in the modern world, in the era of rapid technological development, digitalisation opens up new opportunities and challenges for banks that contribute to improving financial services, increasing efficiency and convenience of customer service, and also contribute to strengthening financial stability.

In recent years, this process has become particularly relevant in the banking sector. Digitalisation is becoming not just a trend, but a key factor in the development of various sectors of the economy. Ukraine's banking system is not left out of this process, and digital transformation is now becoming very promising for the development of this sector of the economy. This process not only facilitates access to financial services, but also increases their quality and security.

Digital banking in Ukraine has only recently begun to develop, with the COVID 19 pandemic providing a powerful impetus for the country's banks to go online, which has led to many negative consequences, but has also prompted an accelerated transition of Ukrainian banks to a new digitalised system.

While only a few banks started implementing digitalisation before 2020, almost all financial institutions did so under the influence of COVID 19 to remain competitive in the market. According to surveys of more than 11,000 respondents from around the world, 45%

of respondents said that after the pandemic began, they preferred online banking and continued to use it after the end of the pandemic [9, p.7]. These results demonstrate that many people consider new digital bank services to be more convenient and acceptable, and therefore create demand for digitalised financial services.

The success of domestic banks in the digitalisation process is also worth noting. For example, Ukrainian online banking Privat24 has been the best digital bank application in Ukraine for the past 5 years. This digitalised bank has also received numerous awards, and thanks to its good reputation and experience in digitalisation, the online bank receives many new users every year [9, p.7].

Another great example of the success of the digitalisation of Ukrainian banks is Monobank, a bank without branches that uses the Universal Bank licence to operate, which shows a significant increase in its customer base every year. Thus, in 2021, Monobank's customer base grew from 3,244,116 people to 5,000,000 people, and in May 2022, it increased by another 800,000 people [10].

The experience of Privat24 and Monobank clearly demonstrates the possible huge success of domestic banks in the process of digitalisation, but it is still a development prospect, as not all banks in the country, unfortunately, have the ability and desire to improve their services in the online sphere. In our opinion, the main challenge for banks in the course of digital transformation is to ensure a high level of cybersecurity, protection of private data and compliance with regulatory requirements.

Overall, despite all the challenges, the digital transformation of Ukraine's banking system is paving the way for a new era of financial sector development and should therefore become a top priority for the Ukrainian banking system.

Conclusion. To summarise, the banking system of Ukraine is an infrastructure that plays a key role in the functioning of the economy, comprises a set of financial institutions and regulatory bodies, and ensures the sustainable development of the Ukrainian monetary system.

After reviewing the dynamics of changes in the number and structure of commercial banks in Ukraine during 2015-2023, we can conclude that the banking sector in Ukraine is currently relatively stable, which is ensured during the martial law in the country by the support of commercial banks by the National Bank of Ukraine. Given the military operations, we are seeing a significant reduction in bank branches across the country and significant economic challenges, but we expect new strategic actions from the regulators to help the banking system. We also attribute the reduction of bank branches to a new perspective for the development of the Ukrainian banking sector - digitalisation, which is already successfully operating in the banking system and should show significant results in the future as an integral part of the modern functioning of the economy as a whole.

References

1. Fedevych L., Livdar M., Mezhyrytska Y. (2020) The banking system of Ukraine: current state and prospects for development. *Economy and Society*. 21. 21-27. doi: <https://www.economyandsociety.in.ua/index.php/journal/article/view/25/24>
2. Ruda O. (2022). Banking supervision and its impact on the banking system of Ukraine. *Agrosvit*. 5(6).15-23. doi: <http://www.agrosvit.info/?op=1&z=3588&i=2>
3. Number of banks in Ukraine (2008-2023) (2023, November 7). Rates, indices, tariffs. doi: <https://index.minfin.com.ua/ua/banks/stat/count/>

4. Ruda O. (2019). The current state of the banking system of Ukraine and its competitiveness. *Effective Economy*. 4. doi: <http://socrates.vsau.org/repository/getfile.php/20493.pdf>
5. The National Bank of Ukraine. (2023, May). doi: https://bank.gov.ua/admin_uploads/article/Banking_Sector_Review_2023-05.pdf?v=4
6. Kovalenko V., Radova N. (2019). Monitoring the financial stability of the banking system of Ukraine. *Eastern Europe: Economics, Business and Management*. 2(19). 321-330. doi: <http://srd.pgasa.dp.ua:8080/bitstream/123456789/5987/1/Kovalenko.pdf>
7. Pravdykovska I., Doroshenko N. (2022). The impact of war on the banking system of Ukraine. *Young scientist*. 9(109). 150-153. doi: <https://molodyivchenyi.ua/index.php/journal/article/view/5583/5466>
8. Gudz T., Gerchikov M. (2023). The banking system of Ukraine in the conditions of war. *Scientific Bulletin of Odesa National Economic University. Finance, banking and insurance*. 1-2(302-303). 53-58. doi: http://dspace.puet.edu.ua/bitstream/123456789/12822/1/Гудзь,%20Герчиков%20НБ%201-2_2023.pdf
9. Zaverbnyi A., Sokulskyi N. (2021). Pandemic as a catalyst for the digitalisation of the banking system in Ukraine. *Economic science. Investments: practice and experience*. 2. 5-9. doi: http://www.investplan.com.ua/pdf/2_2021/3.pdf
10. Krukmal O., Sukhonos V. (2020). Development of banking business in the digital economy. *Effective Economy*. 11. doi: https://essuir.sumdu.edu.ua/bitstream-download/123456789/83574/1/Krukmal_neobank.pdf
11. The Law of Ukraine "On Banks and Banking Activities". (2023, July 29). doi: <https://zakon.rada.gov.ua/laws/main/2121-14#Text>
12. Instruction on the procedure for regulating the activities of banks in Ukraine. (2001, August 28). doi: <https://zakon.rada.gov.ua/laws/show/z0841-01#Text>
13. Supervisory statistics data. (2019, September 12). doi: <https://bank.gov.ua/ua/statistic/supervision-statist/data-supervision#4>

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MODERN TRENDS IN CORPORATE MANAGEMENT

Abstract. This study focuses on exploring current trends in corporate governance and their impact on businesses and organizations. The paper explored key aspects that define the modern landscape of corporate governance. The work identifies the importance of implementing digital technologies and information systems to optimize processes, improve productivity and interact with customers; considered flexible management methods that contribute to adaptation to change and increase openness to innovation; the importance of building an open and inclusive corporate culture has been investigated. The article also analyzes the growing interest in issues of sustainable development and social responsibility of corporations, including environmental standards and social programs; examines the impact of global markets and multinationals on corporate governance and strategic planning; examines the impact of remote work distribution and remote technology usage on corporate governance models.

This study aims to reveal the main trends affecting corporate governance in the modern world and emphasize their importance for the successful functioning of enterprises and organizations. Highlighting these trends will help executives, investors, shareholders and all stakeholders better understand the current dynamics of corporate governance and adapt their strategies to changes in this area.

Keywords: corporate management, digital transformation, agile approach, corporate culture, social responsibility, globalization, remote work.

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СУЧАСНІ ТЕНДЕНЦІЇ КОРПОРАТИВНОГО УПРАВЛІННЯ

Анотація. Це дослідження зосереджується на вивченні сучасних тенденцій у сфері корпоративного управління та їх впливу на підприємства та організації. В статті було досліджено ключові аспекти, що визначають сучасний ландшафт корпоративного управління. В роботі визначено важливість впровадження цифрових технологій та інформаційних систем для оптимізації процесів, підвищення продуктивності та взаємодії з клієнтами; розглянуто гнучкі методи управління, які сприяють адаптації до змін і підвищують відкритість до інновацій; досліджено важливість побудови відкритої та інклюзивної корпоративної культури. Також в статті аналізується зростання інтересу до питань сталого розвитку та соціальної відповідальності корпорацій, включаючи екологічні стандарти та соціальні програми; досліджується вплив глобальних ринків та транснаціональних корпорацій на корпоративне управління та стратегічне планування; розглядається вплив розповсюдження віддаленої роботи та використання віддалених технологій на моделі корпоративного управління.

Це дослідження має на меті розкрити головні тенденції, що впливають на корпоративне управління в сучасному світі та підкреслити їх важливість для успішного функціонування підприємств та організацій. Висвітлення цих тенденцій допоможе керівникам, інвесторам, акціонерам та всім зацікавленим сторонам краще розуміти сучасну динаміку корпоративного управління та адаптувати свої стратегії до змін в цій сфері.

Ключові слова: корпоративне управління, цифрова трансформація, корпоративна культура, гнучкий підхід, соціальна відповідальність, глобалізація, віддалена робота.

Problem statement. The modern business world is undergoing significant changes, and corporate governance, as an important aspect of the successful activities of enterprises and organizations, is also evolving. The study aims to analyze and identify key current trends in corporate governance and their impact on business structures and their activities. Highlighting and analyzing these trends will make it possible to understand the challenges and opportunities facing corporations and organizations in the modern world and to develop corporate governance strategies aimed at achieving success in this changing environment.

Relevance of the chosen topic. The study of modern trends in corporate governance is due to a number of factors affecting the modern business environment and the dynamics of corporate structures. Digital transformation and the rapid development of information technology transform business processes and require organizations to adapt to new management methods, which casts doubt on traditional approaches. Global competition and the entry of new players into the market create constant pressure on enterprises to improve their efficiency, implement innovations and balanced management. Increasing public concern about environmental issues and social responsibility obliges enterprises to improve their corporate practices and strategies. There is a revolution in personnel management methods:

remote work and mixed work models influence the way personnel are managed, requiring new approaches to communication and efficiency. In the modern world, relationships with shareholders and investors are changing, which become more active and require openness, clarity and social responsibility in the management of corporations.

Therefore, the study of modern corporate governance trends becomes extremely important so that enterprises can adapt to changes, ensure their competitiveness, maintain the trust and support of shareholders and investors, and carry out sustainable and effective activities in the modern business environment.

Analysis of recent research and publications. Many scientists are researching modern trends in corporate governance, as this topic is now becoming more and more relevant. A sufficient number of publications are devoted to each of these trends. For example, many well-known scientists have studied the essence of the concept of «digital transformation». According to Lesnaya R. M. (Lesnaya, 2019), this concept means the integration of digital technologies into all areas of business and dramatic changes in its functioning and provision of value to customers. Researchers Nikitin Yu. O. And Kulchitsky O. I. (Nikitin, Kulchitsky, 2019) determined the importance of digital transformation for business and determined its main advantages. Wolfgram M. with colleagues (Wolffgramm, Corporaal, van Riemsdijk, 2018) investigated the impact of new technologies such as artificial intelligence, automation and remote work on corporate governance practices. They determined how managers could adapt to these changes and use technology to improve performance and efficiency.

Scientist Etter M. and colleagues (Etter, Fieseler, Whelan, 2019) investigated the growing importance of corporate social responsibility (CSR) in the digital age. It discusses how companies integrate CSR practices into their core business strategies and use digital platforms to engage with stakeholders and address social and environmental issues. L. M. Matrosova (Matrosova, 2019) investigated the development of the concept of corporate social responsibility. Researcher Kuzmin O.E. and his colleagues (Kuzmin, Stanasyuk, Ugolkova, 2021) defined the essence of the concept of "social responsibility" and noted it as ethical and voluntary actions that organizations take to solve social and environmental problems, as well as achieve financial goals.

The researcher Prysyazhnyuk O.F. (Prysyazhnyuk, 2021) identified the essence of the concept of "flexible approach to management" and highlighted the main advantages of its use. Theobald S. with his fellow scientists (Theobald, Prenner, Krieg, Schneider, 2020) investigated the implementation of flexible management methodologies in modern organizations, looking at how flexible principles originally developed in software development can be applied in other areas of corporate governance to increase flexibility, innovation and sensitivity to market dynamics.

Kopytko M.I. with colleagues (Kopytko, Mikhailitskaya, Vereskly, 2021) considered corporate culture as a strategic direction of enterprise management in the context of modern challenges. (2021). Scientists Danilevich N. S. and Rudakova S. G. (Danilevich, Rudakova, 2022) investigated the directions of development of personnel competence in remote work, its features, advantages and disadvantages.

Therefore, the issue of corporate governance has been studied by many scientists and is now quite widely disclosed, because many publications are devoted to this issue. However, the modern world is dynamic and requires constant revision of existing information and research of new trends in corporate governance.

Purpose of the article. The purpose of this article is to conduct research and analysis of modern trends in the field of corporate governance. The article aims to provide readers with insight into the latest developments and best practices in corporate leadership and to highlight their impact on the success of organizations. Achieving this goal has led to the need to solve the following tasks: to determine the essence of modern trends arising in corporate governance; analyze their impact on the effectiveness of the organization; highlight potential problems.

Presentation of the main research material and results obtained. Corporate management practices have evolved significantly in recent years due to the ever-changing business landscape and technological advancements. Organizations that understand and implement current trends in corporate governance can increase their competitiveness, adaptability and overall success. The analysis and implementation of new approaches in the field of corporate governance is becoming a necessity to ensure the sustainability and development of modern enterprises in a changing business world.

Firstly, there is a growing emphasis on the importance of diversity and inclusion in corporate management. Research shows that diverse teams and leadership bring a wider range of perspectives, which can lead to more innovative solutions and better decision-making (Kopytko, Mykhalytska, Vereskly, 2021, p. 94). Publications highlight the need for companies to actively promote diversity and create inclusive work environments to attract and retain top talent (Amelina, Kubitsky, 2020, p. 63).

Secondly, there is a shift towards a more agile and flexible approach to management. Research suggests that traditional hierarchical structures are becoming less effective in today's fast-paced business environment (Theobald, Prenner, Krieg, Schneider, 2020, p. 26). Instead, organizations are adopting more decentralized decision-making processes, empowering employees at all levels to take ownership and contribute to the company's success. The introduction of flexible management methods contributes to the emergence of certain advantages, among which are increased adaptability, shorter response time to changes and increased involvement of employees (Prysiashnyuk, 2021, p. 87).

Furthermore, the analysis uncovers a growing focus on sustainability and corporate social responsibility (CSR) in management practices. Research indicates that consumers and investors are increasingly demanding that companies operate in an ethical and environmentally responsible manner. Publications highlight the importance of integrating sustainability into corporate strategies, including initiatives such as reducing carbon emissions, promoting fair trade, and supporting local communities.

Technology and digitalization are playing a significant role in modern corporate management. Consumers and investors are increasingly focusing on the need for companies to behave ethically and pay attention to environmental responsibility. The importance of integrating sustainable development into corporate strategies, covering initiatives such as reducing carbon emissions, supporting fair trade and promoting local communities, is universally recognized.

Modern corporate governance is largely designed to use technologies and processes of digital transformation. Companies use digital tools and data analytics to improve decision-making, improve operational efficiency, and drive innovation. The society discusses the challenges and opportunities associated with digital transformation, including the need for upskilling employees and ensuring data privacy and security.

Digital transformation has become a key aspect of modern corporate management. This concept means the integration of digital technologies into all areas of the business and dramatic changes in its functioning and providing value to customers. Digital transformation uses advanced technologies such as cloud computing, artificial intelligence, big data analytics, Internet of Things (IoT), and automation to optimize business processes, improve productivity, and create new business models (Lesnaya, 2019, p. 116).

There are factors that make it necessary to digitally transform corporate governance. One of them is a change in customer expectations, as customers now expect personalized experiences, seamless interactions, and instant access to products and services. Digital transformation enables businesses to meet these expectations by leveraging data and analytics to understand customer behavior and preferences.

The following can highlight technological progress, since the rapid evolution of digital technologies provides businesses with new tools and capabilities to improve processes enhance decision-making, and drive innovation. Competitive pressure is a significant factor. Analyzing the modern market, it can be argued that companies that fail to embrace digital transformation risk losing market share to more agile and digitally savvy competitors. Digital transformation enables organizations to stay ahead of the curve and differentiate themselves in the market.

Digital transformation offers organizations numerous advantages (Fig. 1) that allow them to maintain competitiveness and improve performance. Among them, the main ones were identified and their significance for the activities of organizations was disclosed.

Of course, while digital transformation offers significant benefits for companies, it also presents challenges and risks that organizations must address. One of these is cultural resistance, since resistance to change and lack of digital literacy among employees can hinder the successful implementation of digital transformation initiatives. Organizations must invest in change management strategies and employee training to overcome these challenges.

Separate risks related to data security and confederacy, since with increased reliance on digital technologies, organizations face the risk of data breaches and privacy concerns. Robust cybersecurity measures and compliance with data protection regulations are essential to mitigate these risks.



Fig. 1. Benefits of digital transformation for enterprises

Source: compiled by the authors on the basis (materials of presentations of the University of Applied Sciences of Mittweida (Germany) on the topic "Fundamentals of corporate governance," 2023)

The problem that organizations may also face in the process of digital transformation is legacy systems. Integrating new digital technologies with existing legacy systems can be complex and time-consuming. Organizations must carefully plan and execute their digital transformation strategies to ensure a smooth transition.

Digital transformation is no longer seen as a selective component; it has now become a necessity for organizations seeking to survive and thrive in the modern digital age. Using digital technology, companies can improve their efficiency, improve their decision-making efficiency, and provide excellent customer experience. However, successful digital transformation requires detailed planning, investment in technology and talent, and adaptation to cultural change. Organizations that embrace digital transformation are in a better position to adapt to future challenges and take advantage of new opportunities.

The term "digital transformation" has gained popularity in recent years, as businesses across industries understand that they must adapt to a fast-moving digital environment (Nikitin, Kulchitsky, 2019, p. 82). This transformation involves the integration of digital technologies into all aspects of the business and dramatic changes in its functioning to ensure significance for customers.

That is, digital transformation has become an integral part of modern business in the digital age. This is not only the introduction of new technologies, but also the creation of an innovative and flexible culture. With the help of digital technologies, enterprises can improve customer interaction, optimize their activities and gain a competitive advantage in the global market. However, it is important to develop a strategic approach to digital transformation and solve all emerging problems along the way.

In addition, one of the main trends in corporate governance is the use of a flexible approach that allows organizations to quickly respond to market changes and customer requirements. Flexible methodology is a management approach that emphasizes flexibility, collaboration, and an iterative development process. It originally originated in software development, but over time has been successfully implemented in various fields and functional areas. Core principles of flexibility include customer collaboration, flexible response to change as planned, and delivery of working solutions through short iterations.

The implementation of a flexible approach in organizations should be accompanied by certain elements that we propose to consider in Figure 2.

Embracing an agile approach allows organizations to respond quickly and effectively to changing market dynamics. By adopting iterative development cycles, businesses can pivot their strategies and products based on customer feedback and emerging trends, ensuring they remain competitive in a rapidly evolving landscape.

It should be noted that the introduction of a flexible approach to management improves the efficiency of the company, as it contributes to cross-functional collaboration and continuous improvement. Teams work together in short sprints, focusing on delivering value and eliminating unnecessary processes. This approach leads to streamlined workflows, reduced waste, and increased productivity (Prysiashniuk, 2021, p. 138).

It has been found that increased customer satisfaction can be achieved through flexible methodologies as they prioritize customer collaboration and feedback. By involving customers throughout the development process, businesses can ensure that their solutions meet customer needs and expectations. This customer-centric approach enhances satisfaction and loyalty, leading to long-term success.

By analyzing the experience of organizations that use a flexible approach in management, it can be seen that its use contributes to accelerated market entry. Agile methodologies enable organizations to deliver working solutions in short iterations. This iterative approach allows for faster development and deployment of products and services, reducing time-to-market and giving businesses a competitive edge.

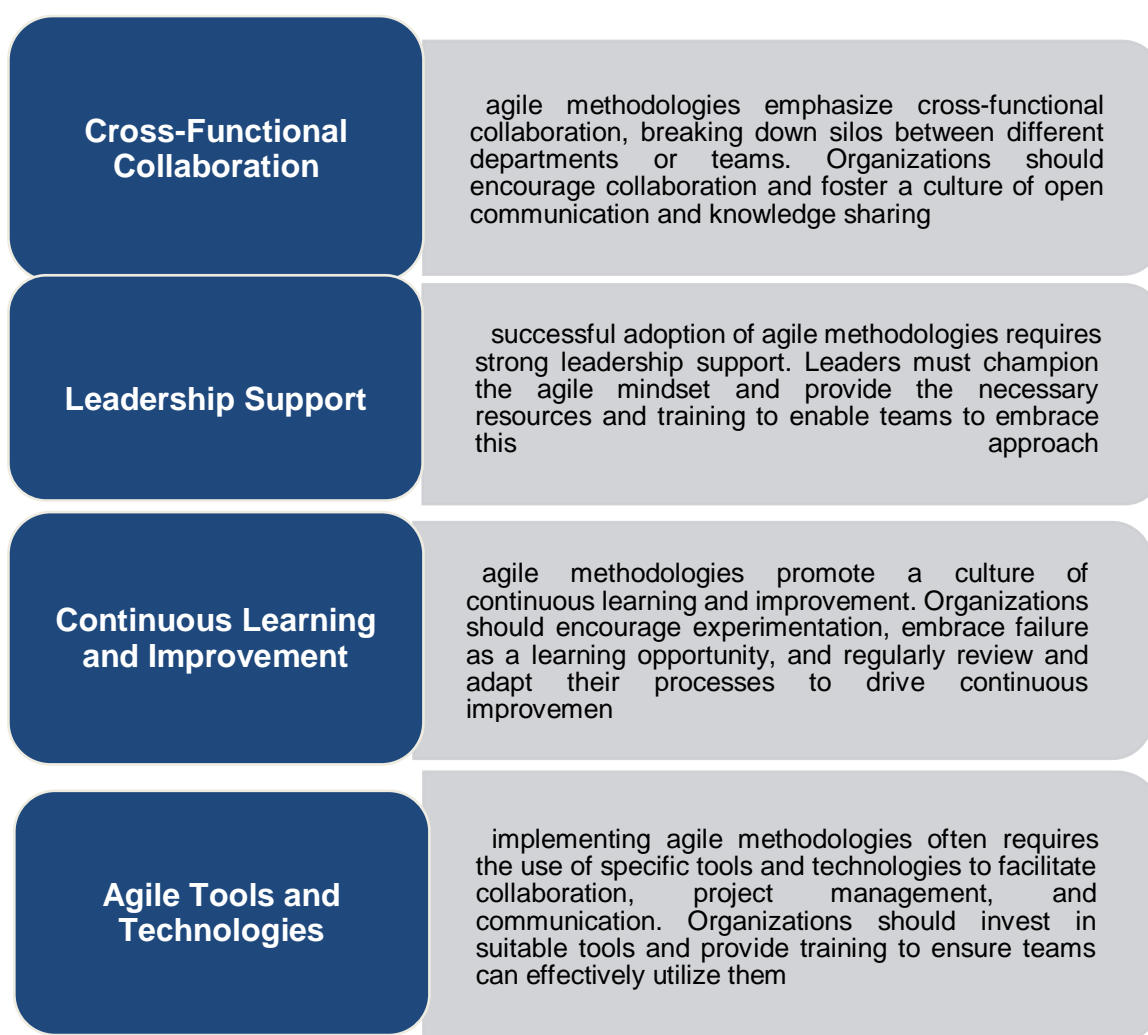


Fig. 2. Elements of implementing a flexible approach in organizations
Source: compiled by authors

While embracing an agile approach offers numerous benefits, organizations may face challenges during implementation. These challenges include resistance to change, lack of clarity in roles and responsibilities, and difficulties in scaling agile across the entire organization. It is essential for organizations to address these challenges proactively and provide adequate support and training to overcome them.

In a rapidly changing business environment, the adoption of a flexible approach is critical to staying competitive and adapting to the ever-changing demands of the market. Adapting to the latest trends helps companies move forward and meet the needs of their customers (presentation materials of Mittweide University of Applied Sciences (Germany) on the topic "Fundamentals of Corporate Governance," 2023).

The development of corporate culture is another current trend in the field of corporate governance. Corporate culture plays a vital role in shaping an organization's identity, values, and overall success. In today's globalized world, promoting diversity and inclusivity within corporate culture has become increasingly important (Kopytko, Mykhalytska, Veresklyia, 2021, p. 96).

Corporate culture refers to the shared values, beliefs, attitudes, and behaviors that define an organization. It encompasses how employees interact, make decisions, and work toward common goals. The effectiveness of the business is largely determined by the actions of employees and managers, since all team members should be aimed at achieving the same goal, which can be done with a properly built corporate culture. A strong corporate culture fosters a sense of belonging, encourages collaboration, and drives employee engagement (presentation materials of Mittweide University of Applied Sciences (Germany) on the topic "Fundamentals of Corporate Governance," 2023).

Diversity within corporate culture refers to the inclusion of individuals from different backgrounds, experiences, and perspectives, providing these with numerical benefits for organizations (Fig. 3).

To ensure the effectiveness of diversity initiatives, organizations should establish metrics and regularly evaluate their progress. This can include tracking diversity in recruitment, promotion rates, employee satisfaction surveys, and diversity-related incidents (Mokhnenko, Melnikova, 2021, p. 47). Also, in order to improve the effectiveness of corporate culture diversity initiatives, strategies to promote diversity in corporate culture should be applied, which are highlighted in Fig. 4.

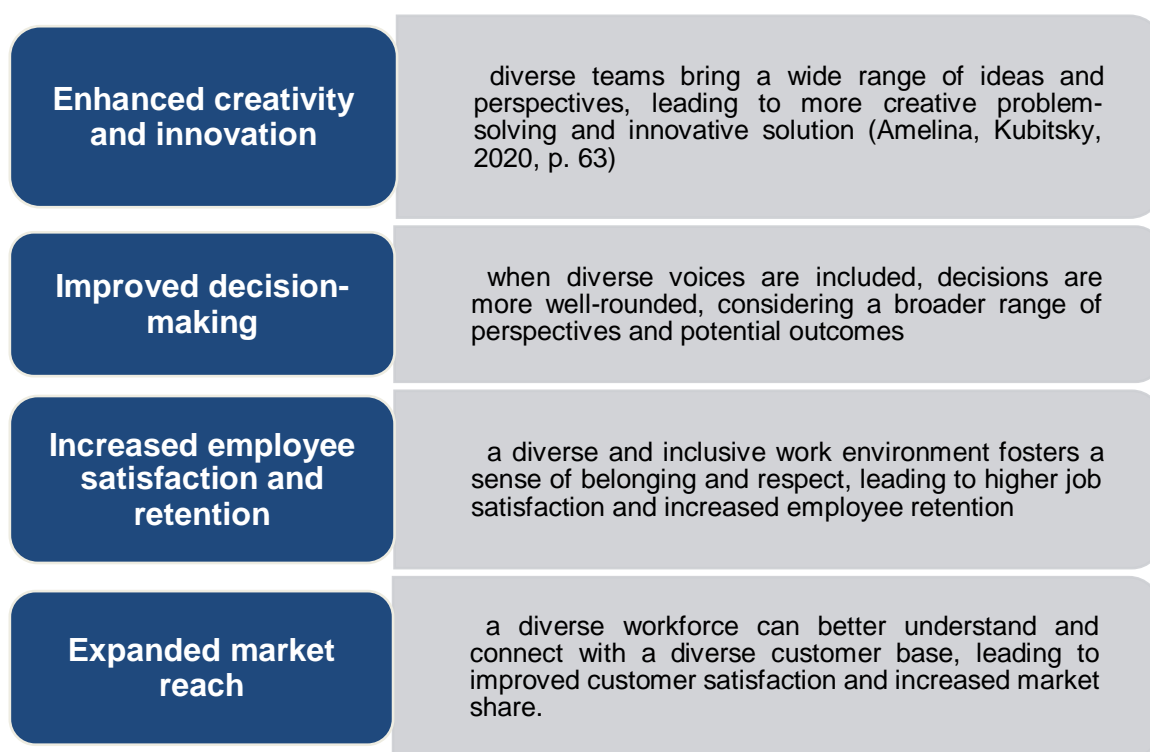


Fig. 3. Advantages of diversity of corporate culture

Source: compiled by authors

In conclusion, developing a strong corporate culture that embraces diversity is crucial for organizations to thrive in today's global business environment. By fostering inclusivity, organizations can unlock the full potential of their employees, drive innovation, and attract a diverse customer base. However, it is essential for organizations to continually assess and improve their diversity efforts to ensure long-term success.

Leadership commitment	senior leaders should actively promote diversity and inclusivity, setting an example for the rest of the organization
Diversity training and education	providing training and education programs to employees on the importance of diversity and how to create an inclusive work environment
Diverse recruitment and hiring practices	implementing strategies to attract and hire a diverse pool of candidates, ensuring equal opportunities for all
Inclusive policies and practices	establishing policies that promote equal treatment, respect, and opportunities for all employees, regardless of their background

Fig. 4. Strategies for Embracing Diversity in Corporate Culture

Source: compiled by authors

In recent years, the concept of social responsibility has gained significant prominence as businesses are increasingly recognizing the importance of going beyond mere profit maximization. Social responsibility refers to the ethical and voluntary actions taken by organizations to address societal and environmental concerns, alongside their pursuit of financial goals (Kuzmin, Stanasiuk, Ugolkova, 2021, p. 4).

Social responsibility encompasses a wide range of actions, initiatives, and policies undertaken by organizations to contribute positively to society. It involves considering the interests of various stakeholders, including employees, customers, communities, and the environment, while making business decisions. This broader perspective acknowledges that businesses have a responsibility to create value not only for shareholders but also for society at large (Matrosova, 2019, p. 197).

Many new opportunities open up for organizations that use the concept of social responsibility, as the concept itself provides significant advantages. First, it is a better reputation of the company, because

Many new opportunities open up for organizations that use the concept of social responsibility, since the conception itself implies significant advantages. Firstly, this is the enhanced reputation of the company, since engaging in socially responsible practices helps build a positive brand image, leading to increased customer loyalty and trust. Consumers are more likely to support companies that demonstrate a commitment to social and environmental causes.

Thanks to social responsibility, the company can attract and retain talent. Employees, particularly millennials and Gen Z, are increasingly seeking purpose-driven work environments. Companies that prioritize social responsibility are more likely to attract and retain top talent.

Contrary to the belief that social responsibility hampers profitability, studies have shown that socially responsible companies often outperform their competitors in terms of financial performance. This can be attributed to factors such as improved brand reputation,

cost savings through sustainable practices, and access to new markets (Etter, Fieseler, Whelan, 2019, p. 939).

Social responsibility can be manifested through different activities that each organization chooses for itself to the best of its ability. Consequently, four main areas of social responsibility were identified, as shown in Figure 5.



Fig. 5. Main areas of social responsibility

Source: compiled by authors

Among all the advantages of the concept of social responsibility for enterprises, it is necessary to highlight the problems of its implementation. One of these is balancing stakeholder interests, since social responsibility may involve trade-offs between different stakeholder interests. Companies need to find a balance that aligns with their values and long-term sustainability.

Quite significant during the implementation of social responsibility is the problem of measurement and reporting, since assessing the impact of social responsibility initiatives and effectively communicating these efforts to stakeholders can be challenging. Companies should develop robust metrics and transparent reporting mechanisms.

It should be noted that a rather difficult process is the integration of social responsibility into the business strategy, and therefore responsibility should be integrated into the core

business strategy rather than being treated as a separate initiative. This ensures long-term commitment and alignment with organizational goals.

By going beyond profit maximization, companies can build a sustainable and ethical future, positively impacting society and the environment. Incorporating social responsibility into business practices can lead to enhanced reputation, increased employee satisfaction, and improved financial performance, ultimately creating long-term value for all stakeholders.

Corporate governance trends such as globalization and remote work provide opportunities for organizations. Globalization has transformed the way businesses operate, enabling organizations to expand their reach and tap into new markets.

Globalization has had a profound impact on the way businesses operate, and one of the key drivers of this change is the rise of remote work. Remote work refers to the practice of employees working outside of a traditional office setting, often from their homes or other locations. This trend has been accelerated by technological advancements, such as high-speed internet and communication tools, making it easier than ever for individuals to work remotely (Danylevich, Rudakova, 2022, p. 203).

In a globalized world, remote work carries many benefits. Among which, first of all, access to the global talent pool can be distinguished, since remote work allows businesses to tap into a global talent pool, breaking down geographical barriers. Companies can hire the best talent regardless of their location, leading to increased diversity and expertise within the workforce.

Also, remote work can significantly reduce costs for businesses. By eliminating the need for physical office spaces, companies can save on rent, utilities, and other overhead expenses. Additionally, remote workers often require fewer resources, such as office supplies and equipment.

One of the significant interruptions of remote work is to provide employees with greater flexibility in managing work-life balance. It allows individuals to avoid long commutes, spend more time with their families, and achieve a better work-life balance. This can result in higher job satisfaction and employee retention rates.

Remote work encourages collaboration between people of different backgrounds and cultures, providing diversity of views and cultural exchange, and promoting global thinking in organizations. This exchange of ideas and points of view improves creativity, problem solving and decision-making processes, which ultimately leads to better business results.

Despite numerous advantages, there are also problems of remote work in a globalized world. Firstly, remote work heavily relies on technology to facilitate communication and collaboration among team members. However, language barriers, time zone differences, and cultural nuances can pose challenges in effective communication and coordination. Organizations need to invest in robust communication tools and establish clear protocols to overcome these obstacles.

Quite a difficult moment when working remotely is building trust and engagement: Building trust and fostering a sense of camaraderie among remote team members can be challenging. Without face-to-face interactions, it may take more effort to establish relationships, build trust, and maintain team cohesion. Organizations must invest in team-

building activities, regular virtual meetings, and effective leadership to mitigate these challenges.

Ensuring data security and confidentiality is a significant problem for organizations, since in this case organizations must ensure data security and privacy. Remote employees can work from unprotected networks or use personal devices, which increases the risk of data leakage. Implementing robust cybersecurity measures and training remote workers in best practices is critical to protecting organizational information.

The COVID-19 pandemic has accelerated the adoption of remote work globally, prompting organizations to rethink their traditional work models. As a result, remote work is likely to become more prevalent even after the pandemic subsides. This shift towards remote work has the potential to reshape industries, workforce demographics, and urban planning. It may lead to the decentralization of economic activity, the revitalization of rural areas, and the reduction of traffic congestion in major cities.

Globalization and remote work are intertwined, expanding the boundaries of work and transforming the way businesses operate. While remote work offers numerous benefits, it also presents challenges that organizations must address to maximize its potential. By leveraging technology, fostering effective communication, and embracing a global mindset, businesses can harness the power of remote work in a globalized world and reap its rewards.

Conclusion. Consequently, this article has highlighted the modern trends in corporate management, including digital transformation, agile approach, corporate culture and diversity, social responsibility, globalization, and remote work. By embracing these trends, organizations can enhance their competitive edge, adapt to changing market dynamics, and foster a culture of innovation. It is imperative for businesses to stay abreast of these trends and proactively integrate them into their management practices to thrive in today's dynamic environment.

This article provides valuable insights and recommendations for organizations seeking to navigate the path to success in the modern corporate landscape. By understanding and effectively implementing these trends, businesses can position themselves for sustainable growth, increased profitability, and long-term success.

In conclusion, modern trends in corporate management are reshaping the way organizations operate and achieve success. The rise of agile management practices has allowed companies to adapt quickly to changing market conditions and customer demands. This approach emphasizes collaboration, flexibility, and continuous improvement, enabling companies to stay ahead of the competition.

Another significant trend is the increasing focus on sustainability and corporate social responsibility. Companies are recognizing the importance of integrating environmental and social considerations into their business strategies. This not only helps them build a positive brand image but also contributes to long-term profitability and societal well-being.

Embracing these trends allows companies to adapt to a rapidly changing business landscape, attract top talent, improve operational efficiency, and contribute positively to society. By staying abreast of these trends and adopting them strategically, businesses can position themselves for long-term success in today's dynamic marketplace.

Further research can focus on exploring the role of emerging technologies such as artificial intelligence, blockchain, and data analytics in transforming corporate management practices. This research can investigate how these technologies can enhance decision-making processes, improve operational efficiency, and drive innovation within organizations.

With increasing awareness about environmental and social issues, there is a need for research on sustainable and responsible management practices. This can involve examining the implementation of sustainability strategies, corporate social responsibility initiatives, and ethical decision-making frameworks within organizations. Research can also explore the impact of these practices on financial performance, reputation, and stakeholder relationships.

References

1. Amelina, S. M., & Kubitsky, S. O. (2020). Corporate culture in the personnel management system. International scientific journal "Internauka". Series: "Economic Sciences", 7(39), 59-66.
2. Danylevich, N. S., & Rudakova, S. G. (2022). Areas of development of personnel competence during remote work. Strategic imperatives of modern management: Collection. Materials of the VI International Scientific and Practical Conference.–K.: KNEU, 2022. 370 p. ISBN 978-966-926-416-9, 203.
3. Kopytko, M. I., Mykhalytska, N. Ya., & Veresklyia, M. R. (2021). Corporate culture as a strategic direction of enterprise management in the conditions of modern challenges. Scientific notes of the University "KROK", (2 (62)), 92-99.
4. Kuzmin O. E., Stanasiuk, N. S., & Ugolkova, O. Z. (2021). Social responsibility of business: concept, typology and formation of factors. Management and entrepreneurship in Ukraine: stages of formation and development problems, (2), 6.
5. Lisova R. M. (2019). Impact of digitalization on business models: stages and tools of digital transformation. Scientific Bulletin of the Uzhhorod National University. Series: International Economic Relations and World Economy, (24 (2)), 114-118.
6. Matrosova L. M. (2019). Development of the concept of corporate social responsibility (CSR) of business in Ukraine. Market infrastructure, (33), 194-201.
7. Mohnenko A. S., & Melnikova, K. V. (2021). Peculiarities of corporate culture at IT enterprises in modern business conditions. Scientific Bulletin of Kherson State University. Series "Economic Sciences", (42), 45-49.
8. Nikitin Yu. O., & Kulchytskyi, O. I. (2019). Digital paradigm as a basis for defining: digital business, digital enterprise, digital transformation. Marketing and Digital Technologies, 3(4), 77-87.
9. O. Prysiashnyuk. f. (2021). Advantages of using flexible project management in business. Scientific and educational transformations in the modern world: Collection. Materials of the All-Ukrainian Interdisciplinary Scientific and Practical Conference.–K.: Chernihiv: Scientific and Educational Innovation Center of Social Transformations, 2021. P. 138–139.
10. Wolffgramm, M., Corporaal, S., & van Riemsdijk, M. (2018). The future of work: how technology will affect the workplace and the workforce. In XI International Seminar on Personnel Management.
11. Etter, M., Fieseler, C., & Whelan, G. (2019). Shared economy, shared responsibility? Corporate social responsibility in the era of digital technologies. Journal of Business Ethics, 159, 935-942.
12. Theobald, S., Prenner, N., Krieg, A., and Schneider, K. (2020). Flexible leadership and flexible management at the organizational level - a systematic literature review. Product-Oriented Software Improvement: 21st International Conference, PROFES 2020, Turin, Italy, 25-27 November 2020, Proceedings 21 (pp. 20-36). Springer International Publishing.

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THE IMPACT OF DIGITAL TRANSFORMATION ON INTERNATIONAL BUSINESS

Abstract. Digital transformation, which is caused by various factors, is currently a key condition for the successful development of international business in the global economic landscape. Changes in the global marketplace require special attention to the impact of digital technologies on international business.

The purpose of this article is to study and analyse the impact of digital transformation on international business, identify key trends and challenges arising from this process. The article aims to review and systematise information on the impact of digital transformation on international business. It also aims to highlight the key aspects of the digital transformation of companies.

The article is based on the analysis of scientific literature, statistical data and information from international companies that are already implementing digital technologies in their operations. The research methods used include comparative analysis and data synthesis. This study focuses on the impact of digital transformation on international business and provides a detailed analysis of the risks, benefits and challenges that arise in the process of implementing digital innovations in companies' operations. This study aims to reveal the key aspects of digital transformation, including changes in strategies and management processes, technological shifts, and interaction with consumers and competitors in the international market.

Keywords: digital transformation, international business, digital technologies, globalisation.

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ВПЛИВ ЦИФРОВОЇ ТРАНСФОРМАЦІЇ НА МІЖНАРОДНИЙ БІЗНЕС

Анотація. Цифрова трансформація, яка спричинена різноманітними чинниками, на сьогоднішній день є ключовою умовою для успішного розвитку міжнародного бізнесу в глобальному економічному ландшафті. Зміни, що постійно відбуваються у глобальному ринковому просторі, вимагають особливої уваги до впливу цифрових технологій на міжнародний бізнес. Метою цієї статті є дослідження та аналіз впливу цифрової трансформації на діяльність міжнародного бізнесу, визначення ключових тенденцій та викликів, які виникають у зв'язку з цим процесом. Стаття спрямована на огляд і систематизацію інформації щодо впливу цифрової трансформації на міжнародний бізнес. До її завдань можна віднести і виділення ключових аспектів процесу цифрової трансформації компаній.

Стаття базується на аналізі наукової літератури, статистичних даних та інформації міжнародних компаній, що вже впроваджують цифрові технології у свою діяльність. Методи дослідження включають порівняльний аналіз та узагальнення даних. Дане дослідження присвячено вивченню впливу цифрової трансформації на міжнародний бізнес та проведення докладного аналізу ризиків, переваг і викликів, які виникають у процесі впровадження цифрових інновацій в діяльність компаній. Це Hochschule Mittweida

дослідження ставить на меті розкрити ключові аспекти цифрової трансформації, включаючи зміни в стратегіях та процесах управління, технологічні зрушення та взаємодію зі споживачами та конкурентами на міжнародному ринку.

Ключові слова: цифрова трансформація, міжнародний бізнес, цифрові технології, глобалізація.

Problem statement. Due to the rapid development of technology in the modern world, digital transformation has become a mandatory stage in the activities of most existing companies. This process involves the introduction of advanced digital technologies and changes in management strategies, which significantly affects all aspects of their operations, including international business. Digital transformation provides international companies with endless opportunities to expand their global presence and increase their competitiveness. On the one hand, this transformation makes it easier for international teams and partners to interact through new communication and collaboration tools. On the other hand, it creates new challenges and risks that require constant analysis and the development of tailored strategies. Addressing these challenges requires not only the introduction of technological innovations, but also the adaptation of organisational culture and strategic management of enterprises to the new conditions of the digital era.

Relevance of the chosen topic. Studying the impact of digital transformation on international business is an important step for its further development in the future, as this topic is becoming increasingly relevant in today's world, which is full of innovations and technological changes. Digital transformation is transforming the way businesses operate and interact with customers, partners and competitors. It affects strategies, operational processes, human resources policies, and all aspects of companies' operations on a global scale. The main purpose of these studies is to understand and analyse the impact of digital transformation on the business environment and to determine which companies are able to adapt and implement new digital practices and which may face difficulties. Studying the risks, benefits, challenges and opportunities that accompany this process helps to develop appropriate strategies and tools for effective digital transformation. In addition, these studies reveal the importance of digital transformation as a driver of global economic growth and development. They show how digital transformation can help international companies become more competitive in global markets, expand their global footprint, and create new opportunities for development and cooperation in the international community.

There are several key factors that underline the need for an in-depth analysis of this topic. The rapid development of technologies, such as artificial intelligence (AI), data analytics, cloud computing, the Internet of Things, etc., opens up new opportunities for businesses around the world and requires them to adapt to all changes to maintain their competitiveness in the market. Globalisation processes, which are primarily characterised by the growing interdependence of national economies and the intertwining of socio-economic processes in different regions of the world, are driving firms to seek better business conditions and driving their transformation. The need for digital transformation has also been accelerated by the Covid-19 pandemic, during which companies were forced to quickly adapt to remote work and changes in consumer attitudes, which highlighted the importance of digital solutions for further business sustainability and development. Competitive pressure in today's international market is a significant driver of digital transformation. In an intensely competitive environment, companies are forced to constantly look for innovative solutions and improve their business processes. With the increasing importance of information, the

ability to collect, process and analyse data faster and better is crucial for companies to survive in the market. Data is becoming the most valuable asset for many companies and determines the success of their operations, making digital transformation a prerequisite for business in the modern world.

Analysis of recent research and publications. The essence of the concept of "digital transformation" has been studied by many well-known scholars, including D. Bowersox, G. Westermann, K. Dahlman, T. Ochs, U. Riemann, K. E. Bowe, S. Scheibl, S. Brennen and D. Kreis. According to D. Bowersox, the main feature of digital transformation in international business is the restructuring of all its internal operations to increase the level of competitiveness and increase the potential of the enterprise by automating business processes; this means that companies must introduce new digital technologies and tools that allow them to optimise internal processes, reduce manual labour and increase productivity (Lisova R. M., 2019). Researcher G. Westermann defines digital transformation as the use of new technologies and all existing digital tools to improve the functioning of an enterprise (BMW, 2016). K. Dahlman associates the concept of "digital transformation" with the combination of the latest technologies with economic science using digital tools. According to the researcher, it is the physical and information systems that together determine the processes called digital transformation (Dahlman C., 2016). In their works, T. Ochs and U. Riemann describe digital transformation as the introduction of digital technologies and modern tools into the activities of companies by converting all data and processes into digital format (Ochs T., Riemann U. A., 2018). Researchers C. E. Boueé and S. Schaible are convinced that digital transformation is a series of consistent changes in all existing sectors of the economy in order to adapt their subjects to the new conditions of the digital world (Boueé C., Schaible S.). S. Brennen and D. Kreis define digital transformation as the process of converting data into digital form (S. Brennen. Digitalisation and Digitisation).

It is important to emphasise that digital transformation requires not only technical changes, but also changes in corporate culture and staff mentality. The company's staff must be ready to implement new technologies and actively participate in this process. Such transformation can significantly improve the efficiency and innovation of international companies and contribute to their successful development in the global market. The large number of academic papers on this topic clearly demonstrates the importance of studying digital transformation and its impact on international business. This is confirmed by the great interest that scholars and practitioners show in this issue.

Purpose of the article. The purpose of the article is to study the impact of digital transformation on the processes, strategies and models of international business in the context of globalisation and growing competition in international markets.

The objectives of the article are to analyse the main aspects of digital transformation and its impact on international business; to identify the key factors of successful digital transformation for international companies; to identify possible challenges and constraints faced by enterprises in the course of digital transformation; and to study the prospects for the development of international business in the context of digital transformation and expansion of global markets.

Presentation of the main research material and results obtained. The definition of the concept of "digital transformation" may vary depending on the personal views of researchers and the specifics of the industries in the context of which it was considered. However, the general content of existing definitions can be described as follows: digital transformation is the process of implementing digital technologies and innovations to transform a company's business models, operational processes, products and services to

improve its efficiency and competitiveness in the market. Digital transformation is marked by the active use of modern digital solutions, such as artificial intelligence, the Internet of Things, data processing and process automation, to achieve the organisation's strategic goals. This process can cover all aspects of business, from customer interaction to optimising internal operations.

The main components of an organisation's digital transformation are shown in Figure1.

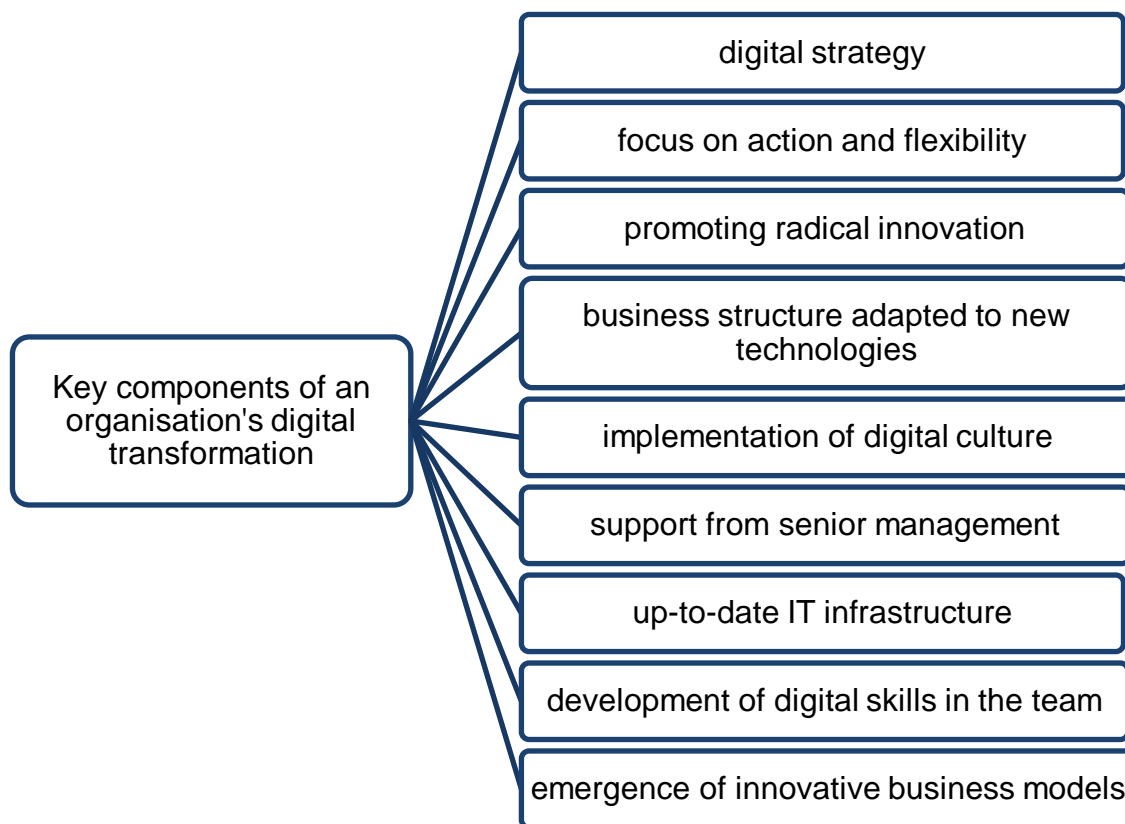


Figure 1. The main components of digital transformation of an organisation
Source: compiled by the authors on the basis of (Smolyar L. G. b.d.)

The development of digital technologies has a significant impact on businesses in all aspects of their operations. These technologies are transforming the way businesses do business and opening up new opportunities for enterprises, but they also pose certain challenges, primarily related to the need to adapt to the rapid pace of change and security issues. The development of digital technologies allows for the automation of many routine tasks and processes in business, opens up new ways of interacting with customers, provides many effective tools for improving analytics, accelerates decision-making and helps reduce the cost of business operations.

Digital technology has a significant impact not only on the internal processes of national businesses, but also on international businesses and all aspects of their operations. In the era of globalisation and the digital revolution, international business is becoming extremely sensitive to the impact of modern technologies and innovations.

The transformations that accompany digital transformation should be considered in the context of international business, in particular their impact on global operations, international relations and competitiveness in the global market. International business is

defined as a set of business operations that involve crossing national borders and moving goods, services, capital, and employees; transferring technologies, information, and data; and managing performers (Robock S.H., Simmonds K.).

International business differs from the national business by the following characteristics:

- use of different currencies;
- the presence of peculiarities in the legal system;
- the presence of certain cultural differences;
- diversity of the composition and volume of available resources (materials of presentations from the University of Applied Sciences Mittweid (Germany) in the discipline "International Management", 2023).

The main characteristic features of international business that can be distinguished are profit-making, business transactions between companies from different countries and the use of the benefits of international business operations (materials of presentations from the University of Applied Sciences Mittweid (Germany) in the discipline "International Management", 2023).

Conducting international business has its own significant benefits, which are related to higher profits. They are provided by the following factors:

1. access to foreign labour markets (with different prices and qualifications);
2. access to new deposits of minerals and raw materials;
3. access to new markets;
4. increasing production volumes and reducing the cost of goods produced;
5. reduction of currency risks (Hutsaliuk O. M., Cherevatenko V. A., 2015).

Today, there are various types of international business based on various forms of trade, investment and other types of cooperation between countries. All of them are shown in Figure 2.

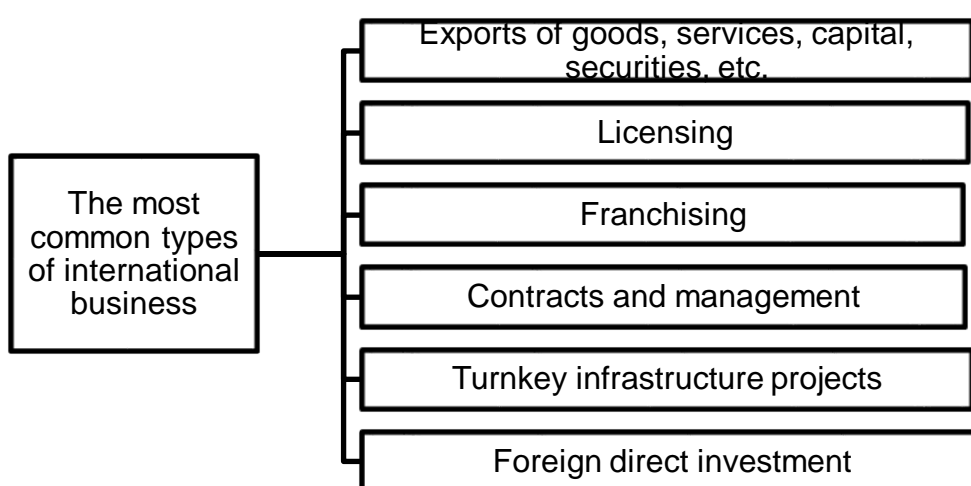


Figure. 2. The most common types of international business

Source: compiled by the authors on the basis of (Hutsaliuk O. M., Cherevatenko V. A., 2015).

The development of international business is a complex historical process that has taken place over many centuries. The famous American researcher Richard Robinson proposed a periodisation of the development of international business, which included the stages shown in Figure 3.

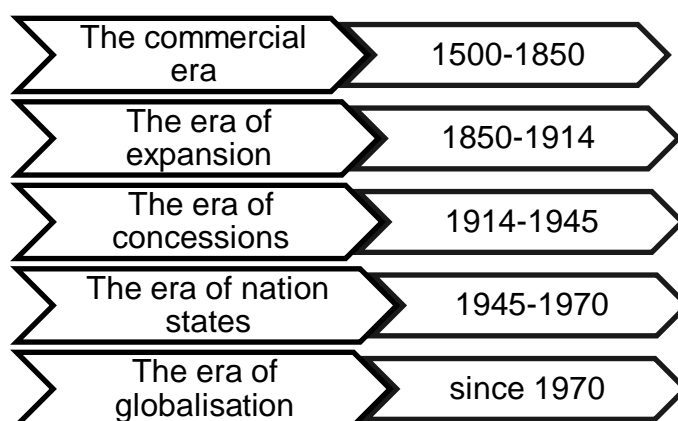


Figure 3. Periodisation of international business development

Source: compiled by the authors on the basis of (Materials of presentations from the University of Applied Sciences Mittweid (Germany) in the discipline "International Management", 2023).

International business, thanks to its global presence and intercontinental relations, plays a significant role in the formation and functioning of the world economy. This sphere of business activity serves as a catalyst for interaction between different regions of the planet, creating a powerful impetus for economic development on a global scale. International companies create a global network of trade relations that facilitates the exchange of various goods and services between different countries. This interaction stimulates a more efficient use of resources that become available to different markets, contributing to the production and consumption of goods and services around the world. Open international relations also expand the geography of production and trade, which affects the structure of employment and contributes to the creation of new jobs in different parts of the world.

International business makes new technologies and innovations more accessible to global consumers. This cooperation encourages companies to look for new solutions, develop advanced technologies, and facilitates the dissemination of knowledge around the world. In addition, international business influences the development of the global trading system and supports rules and standards that facilitate trade and reduce barriers to entry. International business not only increases the flow of goods and services between countries, but also raises the standard of living of the population by creating access to a variety of goods and services. This helps to empower consumers and improve the comfort and quality of life of people in different countries.

Globalisation processes, competitive pressure and new realities caused by the COVID-19 pandemic have significantly accelerated the digital transformation of businesses around the world. Digital transformation is the transition of a company to digital business by changing its organisational culture and introducing modern information technologies that expand the boundaries of the organisation (Chmeruk G., 2019, p.165). Digital technologies are changing the way companies interact in international markets, creating new opportunities for effective business across borders, and allowing them to enter new markets faster and more efficiently. They help businesses to establish international supply chains, simplify the

export and import of goods and services, and increase their overall competitiveness in the global marketplace.

In today's world, digital transformation plays a crucial role in the operations of international businesses. On the one hand, digital technologies are transforming international business, providing it with a new level of flexibility, accessibility and innovation. They allow companies to more easily adapt to global changes, respond to changing market conditions and increase their international competitiveness. Digital tools help businesses optimise their processes, increase productivity and expand their geographical reach.

On the other hand, this transformation poses a number of challenges for international businesses. The extremely fast pace of technological change may require significant investments in upgrading hardware and staff training. In addition, changes in digital legislation may require companies to comply with new rules and standards, which may require additional legal and regulatory compliance efforts.

For large corporations with international operations, the process of digital transformation may require a review of corporate culture and management practices. It is important to remember that digital transformation is not just about implementing technology; it involves changes in approaches to business strategy and stakeholder engagement.

Digital transformation opens up many opportunities to improve communications and connections in international business. One of the key benefits of this transformation is the ability to improve communication not only within companies, but also in their interactions with partners and customers. To achieve this goal, modern technologies and tools are being introduced to ensure more effective communication and cooperation. One of these tools is video conferencing. They allow you to hold meetings and conferences online while maintaining high quality communication even over long distances. This is especially useful for international companies with branches and partners in different countries. In addition, shared work platforms and collaboration tools allow employees to work on projects and tasks in real time, even if they are located in different geographical regions. This helps to increase productivity and ensures that teams work more efficiently. In particular, companies are actively using web portals and mobile applications to improve customer service and partner interaction. This allows customers to conveniently receive information, place orders and monitor the status of services or goods. Partners can easily exchange data, documents and information through these platforms, which simplifies the process of interaction and collaboration.

Digital transformation is prompting international companies to change their business models and strategies, which allows them to increase their competitiveness in the market. Due to the rapid development of digital technologies, existing business models are becoming obsolete and are being replaced by new ones (Lisova R. M., 2019). A business model is a concept that outlines the company's activities and how it creates and provides value for customers. With a business model in place, a company can describe its business with phrases such as "what it does", "what it offers" and "how the offer is made" (Chmeruk G., 2016).

Some researchers have identified three ways in which digitalisation can affect the change in business models:

1. Optimisation of existing business models;
2. Transformation of existing business models;

3. Development and implementation of new business models (Bouwman H., Nikou S., Molina-Castillo F. J., de Reuver M., 2018).

Digital transformation can occur only at the level of individual elements of the business model or contribute to its transformation as a whole. The degree of digital transformation includes consistent (marginal) or radical (fundamental) changes in the company's business model (Lisova R. M., 2019).

The ability of companies to operate successfully and for a long time in the market depends on how efficient and well-thought-out their business models are in terms of creating customer value. The use of digital technologies and new analytical methods creates new opportunities for the operation and development of business models.

Digital transformation is helping businesses to increase their competitiveness and optimise production through the use of artificial intelligence and a large number of tools for process optimisation and data analysis. Digital technologies allow for the automation of many production processes, which leads to lower costs and higher productivity. Data analysis using digital tools helps to make faster and more informed decisions and enables more accurate forecasting of market trends.

Despite all the benefits of digital transformation, it also poses certain challenges that companies need to consider. The growing amount of digital data creates cybersecurity threats. Businesses need to invest significant resources in developing robust data protection mechanisms and creating special networks to avoid cyberattacks. Digital transformation may also require rapid changes in staff competencies and skills. Companies should provide timely training and retraining opportunities for employees to successfully implement digital initiatives in their operations. Companies that are able to adapt to the new digital environment have a chance to maintain and even increase their competitive advantage in global markets.

For a deeper understanding of the importance of a competent digital transformation, it is worth looking at examples of international companies that have successfully implemented digital technologies in their business processes and exploring the strategies and tools they use to achieve success.

Amazon is known worldwide for its successful digital transformation, which has allowed it to become one of the largest international online trading platforms in the world. Its innovations include using artificial intelligence to personalise product recommendations, expanding its cloud computing services to provide faster customer service, and introducing automated logistics to optimise deliveries. In addition to the successful use of digital technologies for its own business, Amazon provides services for digital transformation through the implementation of the AWS cloud developed by the company. For this purpose, AWS Professional Services was created - a global team of experts that helps companies achieve the desired business results when using the AWS cloud. The organisation works together with the staff of the companies they provide services to and the members of the AWS partner network they choose to implement corporate cloud computing initiatives. AWS Professional Services also provides focused guidance through a global specialised practice that spans solutions, technologies and industries (Cloud Professional Services - Cloud Computing Consultants - AWS., n.d.).

Many international banks are implementing digital transformation to improve customer service and create a more robust security system to protect personal data and confidential information. International banks use cloud technologies to store and analyse large amounts

of data, and develop mobile applications and online services to ensure quick and convenient access to banking services for customers.

International companies use a variety of strategies and digital tools to facilitate transformation processes. The introduction of cloud computing for data storage and processing and the integration of artificial intelligence into business processes allows companies to scale their operations internationally. Another step that contributes to the success of digital transformation is the partnership of companies with innovative start-ups. This type of cooperation enables companies to implement new ideas and technologies in their operations much more easily and efficiently and to stay ahead of the competition in terms of digital transformation.

Conclusions. The need to adapt to the new realities caused by the rapid development of digital technologies, globalisation, increasing competitive pressure, the growing role of information and the COVID-19 pandemic has made digital transformation a mandatory stage in the activities of all existing companies. Digital transformation enables them to remain competitive in a changing technological environment. In order to continue to operate successfully in the post-pandemic era, a company must ensure rapid adaptation to all the changes taking place in the global market.

Digital transformation can be defined as the process of introducing digital technologies and innovations to transform a company's business models, operational processes, products and services to increase its efficiency and improve its competitiveness in the market. Digital transformation, which is based on the introduction of the latest digital technologies and changes in management approaches, is dramatically affecting all aspects of both national and international business. Although digital transformation is simplifying and providing many benefits to international companies, it poses many challenges to businesses that require constant analysis and search for solutions. These challenges are primarily related to data security, adaptation to changes in legislation and the need to retrain staff.

Digital transformation is driving changes in business models and prompting companies to seek new strategies. Transformation processes can be limited to the level of individual elements of the business model or contribute to its complete transformation.

The introduction of the latest technologies will help save time and increase the efficiency of all business processes. International companies are successfully implementing digital transformation, which involves restructuring all operations, introducing innovations, and using new tools such as artificial intelligence (AI), cloud computing, the Internet of Things, etc. This allows them to maintain their market position and stay ahead of the competition by leveraging the benefits of digital technologies.

The structural changes in business brought about by digital transformation open up new opportunities and challenges that need to be explored and understood to improve the efficiency and competitiveness of international companies. Researching this topic helps to unlock the potential of modern technologies and develop strategies for their successful implementation, which is becoming a key factor in the struggle for leadership in global markets. Thus, the study of digital transformation has become not only relevant but also an integral part of international business development.

The main areas of further research into the impact of digital transformation on international business will include analysing the pace, trends and prospects of digital technologies in the context of international companies, developing tools for better data

protection and creating a more reliable information security system.

References

1. Gutsaliuk O. M., Cherevatenko V. A. (2015). Development of international business in the context of international management. State and regions. Series: Economy and entrepreneurship, (6(87)), 8-13. URL: http://www.econom.stateandregions.zp.ua/journal/2015/6_2015/4.pdf
2. Lisova R.M. (2019). The impact of digitalisation on business models: stages and tools of digital transformation. Scientific Bulletin of Uzhhorod National University, 2(24), 114-118. URL: <https://dspace.uzhnu.edu.ua/jspui/bitstream/lib/25455/1/%d0%9b%d1%96%d1%81%d0%be%d0%b2%d0%b0%20%d0%a0.%20%d0%9c..pdf>
3. Smolyar L.G. (b.d.). Digital transformation and development of innovative business models. IV International Scientific and Practical Conference "Business, Innovation, Management: Problems and Prospects". URL: <http://confmanagement.kpi.ua/proc/article/view/279896>
4. Chmeruk G. (2016). Features of the formation of the business model of the enterprise. Economic Sciences. Series "Accounting and Finance". Issue 12. C. 170-178.
5. Chmeruk G. (2019). Digital transformation as a new form of transformation of financial relations of business entities. Bulletin of Odesa National University. Series: Economics. Vol. 24, Issue 4. C. 164-169.
6. BMWi. Industrie 4.0 und Digitale Wirtschaft - Impulse für Wachstum, Beschäftigung und Innovation, Berlin: Bundesministerium für Wirtschaft und Energie, 2015.
7. Bouée C., Schaible S. Die Digitale Transformation der Industrie. Study: Roland Berger und BDI. URL: https://www.researchgate.net/publication/315857925_Die_digitale_Transformation_von_Geschäftsmodellen_gestalten
8. Cloud Professional Services - Cloud Computing Consultants - AWS. Amazon Web Services, Inc. URL: <https://aws.amazon.com/professional-services/>
9. Dahlman C., Mealy S., Wermelinger M. Harnessing the Digital Economy for Developing Countries. Paris: OECD, 2016.
10. Bouwman H., Nikou S., Molina-Castillo F. J., de Reuver M. (2018). The impact of digitalisation on business models. Digital Policy, Regulation and Governance. Vol. 20 No. 2. P. 105-124. DOI : 10.1108/DPRG-07-2017-0039.
11. Ochs T., Riemann U. A. (2018). IT Strategy Follows Digitalisation. Encyclopedia of Information Science and Technology, Fourth Edition. Hershey, PA: IGI Global.
12. Robock S.H., Simmonds K. International Business and Multinational Enterprises. [3rd ed]. Homewood, IL: IRWIN, 1983. 777 p.
13. Brennen S. Digitalisation and Digitisation. Digitalisation and Digitisation. Harnessing the Digital Economy for Developing Countries. URL: <http://culturedigitally.org>
14. Shalmo D., Williams C. A., Boardman L. (2017). Digital transformation of business models - best practice, enablers and roadmap. International Journal of Innovation Management. Vol. 21(08). P. 1-17. URL: <https://www.worldscientific.com/doi/pdf/10.1142/S136391961740014X>
15. Materials of presentations from the University of Applied Sciences Mittweid (Germany) in the discipline "International Management", 2022.

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PROBLEMS OF EVALUATING THE QUALITY OF MANAGEMENT AT ENTERPRISES

Abstract. The relevance of the study lies in the importance of effective management for achieving success and sustainability in the modern business environment. This article examines the concept of "ineffectiveness" in the context of organizational management and

its impact on company performance. The main objectives of the research are to identify factors influencing management effectiveness and to study examples of corporate mismanagement.

The research methodology includes an analysis of the findings from the consulting company Proudfoot and the use of Ukrainian sources on organizational management.

The conclusion of the study emphasizes the significance of effective management for achieving success and sustainability in organizations. It also highlights the necessity of a balanced approach to both aspects - the quality of management and performance. Further research in this direction can help develop strategies for improving management in organizations.

Keywords: Management effectiveness, Ineffectiveness, Organizational effectiveness, Corporate management, Performance, Entrepreneurship, Leadership, Management activities.

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ПРОБЛЕМИ ОЦІНЮВАННЯ ЯКОСТІ УПРАВЛІННЯ НА ПІДПРИЄМСТВАХ

Анотація. Актуальність дослідження полягає в важливості ефективного управління для досягнення успіху та стійкості в сучасному бізнес-середовищі. У статті розглядається поняття "неефективності" в контексті управління організаціями та його вплив на результативність компаній. Основні завдання дослідження - визначити фактори, що впливають на ефективність управління, і вивчити приклади корпоративних недолугого управління.

Методологія дослідження включає аналіз результатів дослідження консалтингової компанії Proudfoot та використання українських джерел з питань управління організаціями.

Висновок дослідження підкреслює важливість ефективного управління для досягнення успіху та стійкості в організаціях. Він також вказує на необхідність збалансованого підходу до обох аспектів - якості управління та результативності. Подальші дослідження в цьому напрямку можуть допомогти розробити стратегії покращення управління в організаціях.

Ключові слова: Управління ефективністю, неефективність, організаційна ефективність, корпоративне управління, результативність, підприємництво, керівництво, управлінська діяльність.

Problem statement. In today's world, the issue of management quality in enterprises is recognized as one of the key components of organizational success, regardless of their

size or industry. The problem of assessing management quality has become particularly relevant and has been a subject of discussion for many researchers and practitioners in the field of management. In this paper, we will attempt to address this issue, highlighting its relevance in the modern business environment. We will conduct an analysis of recent research and publications in this area and formulate the purpose and objectives of our study.

The question of management quality becomes increasingly important in modern conditions when organizations face growing internal and external challenges. Management becomes more complex, requiring leaders not only to possess strategic planning and process optimization skills but also the ability to evaluate the performance and effectiveness of their activities.

The problem lies in the fact that there are many approaches to defining and assessing management quality, and they may vary depending on the industry, organization size, and other factors. This necessitates the development of universal methods and tools for evaluating management quality.

Relevance of the chosen topic. Management quality assessment cannot be overstated, as it directly affects the competitiveness of organizations and their ability to adapt to changes in the modern world. Management quality determines how effectively an organization can achieve its strategic and operational goals and how it responds to market challenges and regulatory changes.

Understanding and assessing management quality is also crucial for investors who invest their funds in organizations. They are interested not only in financial results but also in how an organization manages its resources and the quality of its corporate governance.

Analysis of recent research and publications. Today, numerous studies and publications have been dedicated to the issues of management quality assessment. Some of them explore approaches to defining performance and management effectiveness indicators, while others investigate methodologies for measuring and comparing different organizations.

Recent research also emphasizes the importance of considering various factors, such as corporate social responsibility, customer satisfaction, leadership effectiveness, and their correlation with performance in the assessment of management quality.

Purpose of the article. The In this article, we will explore the significance of effective management in the modern business environment and its impact on the success of organizations. We will examine examples of successful and unsuccessful management cases to provide readers with insights into key aspects that determine organizational performance. Achieving the set goal made it necessary to solve the following tasks:

1. Analyze the importance of effective management in organizations and its impact on their results.
2. Present examples of successful companies that have achieved high performance through quality management.
3. Examine the negative effects of poor management on organizations, including examples of companies that have faced failures due to strategic mistakes.
4. Emphasize the importance of ethical aspects in management and their relationship with performance.
5. Investigate how organizations can improve the quality of their management and

achieve better results in a dynamic business environment.

6. Provide readers with recommendations for a balanced approach to management that takes into account both management quality and performance to achieve successful organizational activities.

These objectives will help create an informative and valuable article that underscores the importance of effective management in the modern business environment and helps readers understand how it can impact their organizations and activities.

Presentation of the main research material and results obtained. The question of assessing management quality in enterprises is highly relevant and crucial in today's business environment. Achieving positive outcomes in management can be defined as the effect that represents the final result of utilizing various resources, such as money, time, labor, and other assets. This effect can be measured in various ways, including overall revenue, profit, the number of trained employees, or emissions reduction.

In the context of management assessment, it is important to distinguish between the concepts of "performance" and "effectiveness." Performance relates to the degree of achieving planned activities and goals. It can be measured using various indicators such as profitability, productivity, and asset turnover. On the other hand, effectiveness evaluates the relationship between the achieved result (effect) and the resources used. Thus, it measures how efficiently resources were utilized to achieve a result.

It should be noted that in certain cases, the result can be an effect, while in others, it can be a performance indicator. Such an approach may introduce some distinction in terminology, but it is crucial to consider that both of these metrics are important for assessing management.

Depending on the approach and context, effectiveness can be determined in various ways. For example, Peter Drucker and John Maciarello identify key components of effectiveness, including customer satisfaction, corporate social responsibility, employee satisfaction, performance, labor productivity, leadership effectiveness, management training, operational costs, and innovation. Other authors, such as Peters and Waterman, outline eight criteria for effectiveness, including customer orientation, continuous improvement, environmental adaptation, management level, optimal management team size, employee productivity, optimal organizational structure, and entrepreneurship.

E. Helfert's approach considers seven primary factors of organizational effectiveness, taking into account the interests of various business stakeholders, such as owners, managers, and creditors. This is a well-grounded approach as it considers a broad spectrum of effectiveness indicators that can impact all aspects of organizational activities.

Therefore, in the assessment of management quality, it is crucial to understand the difference between performance and effectiveness and to utilize various approaches to define them. Regardless of terminological nuances, both of these concepts remain essential for evaluating the success of management in any business or organization.

Let's consider that performance, in a broad sense, includes the concept of effectiveness in its narrow interpretation. This approach aligns with the Balanced Scorecard (BSC) system, which encompasses not only profit and profitability but also process efficiency. Performance can be seen as a vector that includes indicators of the alignment of all metrics with target values.

It is worth noting that in the field of management, the issue of effectiveness was historically the first to be considered, followed by a focus on reliability in management. Later on, most researchers shifted their attention towards analyzing the quality of management.

The term "efficiency" was initially mentioned in the works of classical political economists such as Adam Smith and David Ricardo. In its early use, this term was applied to characterize the activities of government agencies as management subjects, which contributed to understanding the government as an entity that manages. Approaches for evaluating government performance emerged, involving measuring the outcome of its activities compared to defined goals. The growth in scale and complexity of industrial production led to the emergence of new management subjects - managers - whose activities required assessment. David Ricardo was among the first to apply the term "efficiency" to assess the relationship between results and costs, which is of great importance for evaluating specific activities.

Under the influence of ideas from the American Society of Mechanical Engineers, managers recognized the need to address economic and organizational challenges and develop new rational methods and techniques for work. The term "efficiency" began to be used not only in an economic context but also as a characteristic of managerial efforts in achieving planned results in production. Over time, understanding efficiency as the ratio of results to costs expanded, including not only labor and material costs but also non-renewable resource costs, environmental pollution, accelerated aging of the human body, and more. Consequently, socio-economic efficiency became an important characteristic of public production. The primary criterion for a manager's success is achieving the set goal, and this success is more precisely characterized by the concept of "efficiency."

In the modern world, the issue of management quality becomes extremely important for enterprises and organizations. T. Peters and R. Waterman emphasize several key aspects of management quality that remain relevant today.

1. Flawlessness and reliability: One of the most crucial aspects is the flawless operation and absence of defects at all stages of activity. This flawlessness is an important component of reliability. If an organization's processes are defect-free, it contributes to creating a reliable system;
2. Participative management style: T. Peters and R. Waterman highlight the importance of a participative management style, which involves mutual responsibility in the relationship between managers and subordinates. This style fosters the involvement of all team members in problem-solving and decision-making;
3. Shifting from "quality costs money" to "quality pays": Another important aspect is changing perceptions of quality-related expenses. Instead of considering investments in quality improvement as costs, it should be viewed as investments. Enhancing quality can lead to increased sales and market dominance;
4. Control and accountability: Quality management is also related to monitoring the activities of all management participants. However, it is important to avoid excessive control, which can lead to shifting the entire management process into the sphere of control and restrict creativity;
5. Enhancing management quality within the system: It is important to note that improving the quality of management in individual elements of a system does not always lead to an overall improvement in management quality. It is crucial to consider the system as a whole, where changes in one element may affect others;

In summary, the concept of management quality plays a significant role in modern business. The aspects highlighted by T. Peters and R. Waterman help organizations improve their efficiency and achieve success in a rapidly changing world.

Performance in management is one of the most critical aspects of successful operations for businesses and organizations. It encompasses the concept of efficiency, which becomes a key factor in achieving set goals and objectives. Equally important is the ability to measure and analyze inefficiency as a tool for identifying ways to improve operations.

The Balanced Scorecard (BSC) is an effective tool for measuring performance in a broad sense. It takes into account not only financial indicators like profit and profitability but also process efficiency, which can be crucial for achieving success within an organization.

The concept of "inefficiency" becomes pivotal in the analysis of performance results. It indicates the failure to reach the full potential and opportunities, highlighting the gap between actual results and potential achievements. To achieve high performance, it is essential to identify the sources of inefficiency and take measures to overcome them.

In the study of management efficiency, two types of inefficiency are often distinguished: technical and economic. Technical inefficiency points to the failure to achieve maximum productivity with available resources. In other words, it represents losses stemming from poorly optimized processes and inefficient resource utilization.

Economic inefficiency reflects the gap between potential economic benefits and actual results in an organization's activities. This means that an organization may miss opportunities for increased profits and growth due to improper resource allocation.

The concept of "X-inefficiency," introduced by Herbert Leibenstein, underscores the fact that many organizations have the potential to achieve significantly better results than they actually do. This can pertain to the efficiency of resource utilization, process management, optimization of strategies, and many other aspects of an organization's operations.

Detecting and eliminating "X-inefficiency" is a crucial task for organizations as it can lead to a substantial increase in productivity and income. This implies that a company can achieve better results while using the same resources or achieve the same results with lower expenditures.

It is essential to consider that achieving maximum efficiency does not always equate to maximum profit. Sometimes, it is more advantageous to allocate resources to other areas or projects where they can lead to greater economic benefits.

For example, if an organization has limited resources and can invest them in two projects: one that can bring stable but not very high profits and another with the potential for significant profit but with substantial risk, effective management in this case means balancing the risk and potential income while taking into account the available resources.

Therefore, the concept of "X-inefficiency" emphasizes the importance of continuous analysis and improvement of management results to achieve success and stability for the organization. Companies and organizations capable of identifying and addressing "X-inefficiency" have a competitive advantage in the market and can achieve better financial results.

All of this underscores the importance of analyzing and improving management results to achieve success and stability in today's business environment. Emphasizing the reduction of inefficiency helps organizations identify potential opportunities for improvement and achieve better results.

A business management system is a set of tools for planning and implementing policies, practices, manuals, processes and procedures that are used during the development, deployment and execution of business plans and strategies, as well as all related management activities [12]. The model of the business management system is shown in Fig. 1.

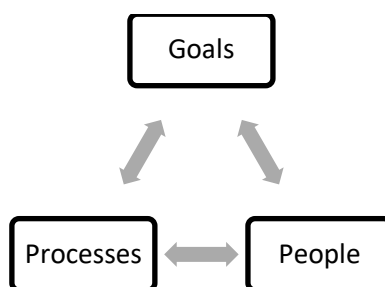


Fig. 1. Business management system model

Source: compiled by the author based on materials [12]

The international consulting company Proudfoot conducted a study aimed at identifying factors affecting labor productivity in European and American companies. The study analyzed 2,614 projects in hundreds of companies across 13 industries in 12 countries. Additionally, 816 senior executives in 11 countries were surveyed.

The results of this study point to the existence of six main productivity barriers or inefficiency factors:

1. Inadequate management planning and control systems (46% of companies);
2. Short-sighted leadership (31% of companies), which manifests in difficulties in estimating the time required for various tasks;
3. Ineffective communication;
4. Poor team atmosphere;
5. Information technology issues;

These inefficiency factors were identified in practically all industries and on all continents. For example, American researchers L. Bossidy and R. Charan have noted that many efforts aimed at setting goals at the top management level often fail to achieve these goals due to inefficient execution.

The main barrier identified was the inadequacy of operational management systems. In half of the companies, planning and control systems did not align with the company's goals (for example, planning was based on past results rather than real capabilities). This can lead to individuals trying to work as slowly as possible to avoid excessive workloads.

Overall, inefficiency is viewed as the inability to approach the potentially achievable limit of an organization's productivity. Management should always focus its efforts on minimizing this "reserve" of inefficiency and moving closer to the maximum possible level of productivity.

Therefore, the key task is continuous analysis and improvement of management results to achieve success and stability for the organization. Companies and organizations that can identify and eliminate inefficiency can achieve better financial results and gain a competitive advantage in the market.

"Nokia is one of those historical examples that remind us how important effective management is for the viability of any business. Let's try to examine how relaxed leadership and strategic management mistakes led to the downfall of the company.

In the early 2000s, Nokia experienced a sort of "golden age." The company was at the peak of success, and its products were popular worldwide. However, this success became a source of complacency for the top management. They believed that nothing could threaten their market leadership.

Of course, such an approach was a significant mistake. The company did not consider changes in the industry, failed to strategically adapt to new market conditions, and did not invest in research and development. The result was a rapid decline in the popularity of their products and a loss of competitive advantages.

Furthermore, Nokia lacked an effective management system, especially concerning strategic decision-making. The top management did not always understand how efficiently their resources were being used and did not track management pathologies within the company.

This situation vividly illustrates the importance of effective management in modern business. Any company, even a market leader, must remain flexible, think strategically, and constantly improve its operations.

The managerial apparatus within Nokia became a sort of giant, which, unfortunately, did not always work in the company's favor. Instead of effective management, it turned into a bureaucratic structure that hindered decision-making and fostered disorder. The consistency and rationality of decision-making were replaced by uncertainty and a lack of accountability.

Over time, this managerial layer became too large and excessively bureaucratic, leading to inefficient management and numerous delays. Instead of decisiveness and strategic vision, endless bureaucracy emerged, where the same issues were discussed endlessly, and no real steps were taken to address them.

This situation led not only to resource wastage but also to a loss of effectiveness in decision-making. Every new decision required an excessive amount of consensus and approval, which stifled initiative and slowed down responses to market changes.

In this situation, there was an obvious degradation in the company's management. Instead of strategic vision and rapid responses to changes, there was bureaucracy and uncertainty. Such a pattern of managerial strata became a hindrance to effective management and led to the company's downfall.

Additionally, Nokia had issues with its system of financial incentives, which did not inspire employees to be productive. Unjustified expenses on projects and outsourcing that diluted the company's competence were also serious management strategy mistakes.

All of these factors contributed to Nokia's bankruptcy in 2011, and unfortunately, it no

longer exists as a standalone company. Even such a giant can fail if it does not improve its management system and adapt to market changes.

The example of Nokia provides a vivid insight into the world of corporate management, where decisions can sometimes contradict ethical norms and common sense. Mostly, such decisions arise from the intense competition in the market, but sometimes they are driven by the short-sighted desires of management to get rich quickly and uncontrollably."

Having examined this example, we can understand that adhering to principles of efficiency and ethics in company management is of utmost importance. Violations of these principles can lead to ineffective and inappropriate corporate governance, and despite outward appearances, a company may find itself on the brink of financial collapse and corporate scandal.

The consequences of poor management can be incredibly serious, and it is crucial to react promptly to subtle signals that indicate possible management problems. Improving the quality of management can help preserve a significant amount of resources and avoid future negative consequences for the company.

Therefore, it is always worth remembering that a company's success is not limited to external indicators but also encompasses the quality and effectiveness of its management.

This example underscores the importance of effective management for success in business and the organizational environment. Many researchers and experts confirm that the efficiency and performance of an organization directly depend on the quality of its management.

Enthusiasm about having competitive advantages, the use of administrative resources, and limited information availability can lead to violations of market economy principles and create an unhealthy situation within the organization. Such practices may lead to temporary success, but in the long run, they harm and undermine the foundations of the business.

Ineffective management can have serious consequences, such as the loss of competitive advantages, resource depletion, and obstacles to the dissemination of information. These consequences can be extremely challenging for the organization and its leadership.

High organizational performance indicates a high quality of its management, serving as the basis for its success. However, it is important to note that high performance does not always reflect high-quality management. To ensure the successful operation of an organization, a balanced approach that considers both the quality of management and performance is necessary.

Therefore, this analysis emphasizes the importance of effective management for the success of an organization, and the quality of management has a direct impact on its performance. However, it is essential to remember that achieving success in an organization requires a balanced approach to both aspects - management quality and performance.

Conclusion. This article has explored the importance of effective management in the modern business environment and its impact on the success of organizations. Based on the research and analysis of various aspects of management, we can draw the following conclusions:

1. Effective management is a key driver of organizational success. Companies and organizations capable of managing their activities effectively have a better chance of achieving high performance and maintaining competitiveness in their respective markets.
2. The quality of management directly influences organizational performance. Excellent management can increase productivity, reduce costs, and promote innovation.
3. Successful companies like Proudfoot demonstrate that high-quality management leads to positive financial outcomes and the ability to adapt to market changes.
4. Mistakes and deficiencies in management can lead to the downfall of even major players like Nokia. Strategic errors, bureaucracy, and unethical practices can significantly harm an organization.
5. Ethical management and adherence to high moral standards are crucial for the successful functioning of an organization. The absence of ethical norms can impact reputation and lead to legal issues.
6. To improve the quality of management, organizations should focus on strategic thinking, effective communication, adaptation to new technologies, and the development of human resources.

Overall, successful organizations recognize the importance of effective management and can strike a balance between the quality of management and performance. Continuous analysis and improvement of management practices are key to achieving success and resilience in the modern business environment.

Regarding the prospects for further research in this direction, it is essential to investigate the impact of modern technologies, changing leadership roles, the implementation of green initiatives on management, and the development of new approaches to improving management practices in an environment of constant change. Additionally, studying the impact of pandemics and crisis situations on management methods and organizational strategies is crucial.

In this dynamic era, management remains a critical factor in achieving success, and further research in this area can lead to new approaches and innovations in organizational management.

References

1. Makarov, I. (2020). The Role of Leadership in Improving Enterprise Management Efficiency. *Management and Entrepreneurship: Scientific and Practical Journal*, 5(2), 45-56.
2. Ivanova, O. M. (2019). Management Efficiency in the Era of Globalization. *Economics and Entrepreneurship*, 14(3), 72-84.
3. Stelmakh, V. G. (2018). Enterprise Management and Factors of Inefficiency: Analysis of Contemporary Challenges. *Management and Entrepreneurship in Ukraine*, 7(1), 32-41.
4. Dotsenko, L. P. (2021). The Impact of Organizational Culture on Communication and Management Effectiveness. *Bulletin of Kyiv-Mohyla Academy National University*, 5(2), 88-97.
5. Proudfoot. (2021). *Achieving Operational Excellence: The Key to Business Success*.
6. Bossidy, L., & Charan, R. (2002). *Execution: The Discipline of Getting Things Done*. Crown Business.
7. Smith, P. A. (2018). The Role of Leadership in Effective Management. *Harvard Business Review*, 96(5), 78-84.
8. Johnson, A. (2019). Ethical Considerations in Modern Management. *Journal of Business Ethics*, 45(2), 213-226.
9. Hill, L. A. (2020). *Becoming the Boss: New Rules for the Next Generation of Leaders*. Harvard Business Review Press.

10. McKinsey & Company. (2021). The Future of Management: Reinventing the Organization for the Digital Age.
11. Drucker, P. F. (2001). The Essential Drucker: The Best of Sixty Years of Peter Drucker's Essential Writings on Management. HarperBusiness.
12. Presentation materials of Mittweide University of Applied Sciences (Germany) on the discipline "Fundamentals of Corporate Management", 2022.

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TITLE MANAGEMENT OF CHANGES AT THE UKRAINIAN ENTERPRISES DURING THE PERIOD OF MARTIAL STATE

Abstract. The article discusses the problems of change management at enterprises during martial law. Unfortunately, the martial law still continues in Ukraine and does not allow enterprises to use all opportunities to their full potential. Companies must quickly respond to external and internal factors in order to continue their operation. The scientific work analyzed the opportunities that Ukraine and other countries provide to Ukrainian enterprises to support their activities. The main challenges faced by businesses were also identified. In addition, recommendations were provided on the adaptation of enterprises to the current situation. The research was carried out using scientific methods: analysis, synthesis and deduction. The practical value of this study is to provide recommendations on how organizations can apply this concept in order to improve the quality of their financial performance.

Keywords: change management, enterprise, martial law, Ukrainian economy, support of Ukrainian enterprises.

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УПРАВЛІННЯ ЗМІНАМИ НА ПІДПРИЄМСТВАХ УКРАЇНИ ПІД ЧАС ВОЄННОГО СТАНУ

Анотація. У статті розглянуто особливості управління змінами на підприємствах під час воєнного стану. На жаль, воєнний стан досі триває в Україні та не дозволяє підприємствам використовувати всі можливості на повну силу. Компанії повинні швидко реагувати на зовнішні та внутрішні чинники задля продовження свого функціонування. У науковій роботі були проаналізовані можливості, які надає держава та інші країни українським підприємствам для підтримки їх діяльності. Також були визначені основні виклики, з якими зіштовхуються сучасні компанії. Були надані рекомендації щодо адаптації підприємств до сучасної ситуації. Дослідження здійснено з використанням наукових методів: аналізу, синтезу та дедукції. Практичне значення цього дослідження

полягає в наданні рекомендацій щодо того, як організаціям застосувати цю концепцію з метою стабілізації та покращення ефективності їх діяльності

Ключові слова: управління змінами, підприємство, воєнний стан, українська економіка, міжнародна та національна підтримка українських підприємств.

Problem statement. Change management has always been a key element of any enterprise. However, in wartime, change management acquires a special nature and special significance, since the survival and further development of the enterprise depends on its success. The state of war is characterized by uncertainty, an increase in the number of risks, a threat to security and a decrease in stability in Ukraine, which can significantly affect the activities of companies. These elements create challenges that businesses must effectively address in order to cope with the new reality.

Relevance of the chosen topic. The ability to manage change is important for many businesses. Especially for companies of those countries that, in addition to economic, political, institutional and social problems, faced military actions. That is why the analysis of the effectiveness of change management in enterprises and the development of recommendations can help companies overcome modern challenges.

Analysis of recent research and publications. A large number of works by both foreign and domestic scientists are devoted to the issue of change management. electronic resources allow you to study the topic in more detail. Gaidei O., Galushko Z., Peshkov A. investigated the issue of effective change management in conditions of uncertainty. Special features of the theory of changes before and during the war were considered in their works by such scientists as: Burns T., Grove E., Aronovi V., Greiner L., Drucker F.

Purpose of the article. The purpose of this scientific work is to study modern approaches to the theory of change management and to identify the peculiarities of the influence of the state of war on Ukrainian enterprises, as well as their ability to adapt to the current situation.

Presentation of the main research material and results obtained. Lean Every company operates in conditions of constant changes in the internal and external environment. On the one hand, changes can create advantages, and on the other hand, they can cause various risks. These risks can be instability in production and financial activities, loss of potential resources and market positions. The enterprise of the future must be formed in such a way that it can continuously and quickly adapt to changes in the surrounding and internal environment, regardless of the circumstances.

Organizational development management is based on change management. This is due to the fact that the changes bring the system to another, higher level of functionality and development. In order to adapt to modern conditions, any enterprise needs to be able to manage changes efficiently. Change management is a movement from a problem state to problem solving. Change is an integral part of every business entity, as the environment in which it exists today is sufficiently variable, volatile and quite often unpredictable. Americans call the modern world VUCA - unstable, uncertain, complex and ambiguous (VUCA is an abbreviation for volatility, uncertainty, complexity and ambiguity). Therefore, companies must respond to changes by implementing effective measures (Porudeeva T., Kishkovska O., Skrypnyk K., 2018).

The concept of "change management" was defined from the point of view of different management approaches:

1. Process approach. In this case, change management is considered as a process consisting of interconnected sequential actions. In other words, change management is the application of known management functions, each of which is a process in itself.
2. A systematic approach. According to this approach, the manager should see the organization as a collection of elements such as people, structure, tasks and technology. All these elements are aimed at achieving specific goals and are closely intertwined with the outside world. Implementation of this approach requires a vision of the overall perspective of the company and its relationship with the external environment.
3. Situational approach. This approach is based on the fact that the priority of management methods is determined by the situation. Change management is considered from the point of view of choosing priority elements, i.e. project components that are in the process of change, and giving them priority influence (Zapukhlyak I., Zelinska G., Pobigun S., 2018).

Change management is mainly related to the structure of the management system, as well as the processes of making strategic and managerial decisions to ensure the effective functioning or economic stability of the enterprise. There are four types of organizational changes, which are shown in fig. 1. The development of these types should be a necessary component of the general management of adaptation of enterprises to changes.

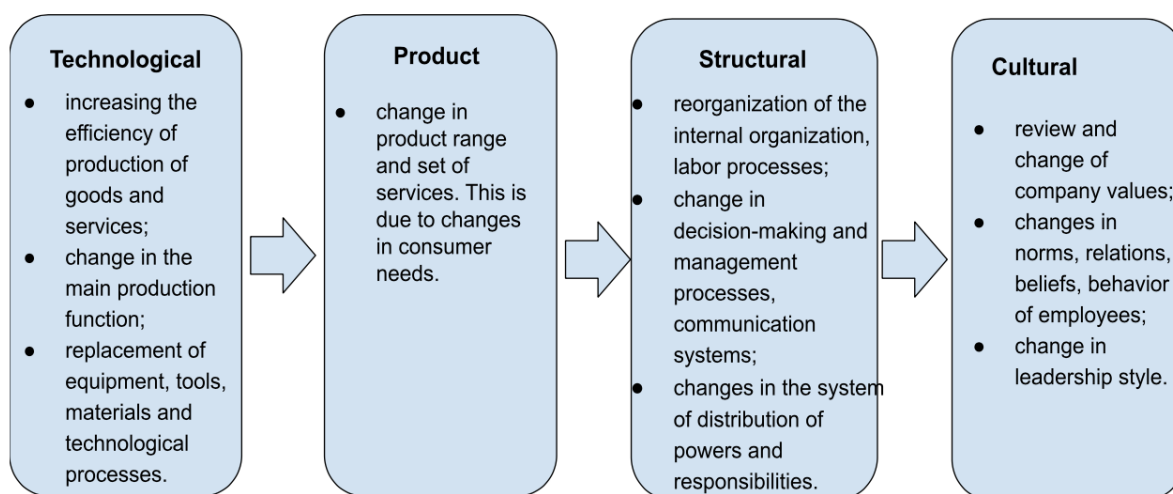


Fig. 1. Types of organizational changes.

Source: Grinchenko R., Kyslychko K., Nechepeliuk V., Onyshchuk V., "Prerequisites for the adaptation of enterprises to changes during the war period", 2023.

Theories of change management are always relevant, but in the conditions of war they acquire a more special meaning. The aggressor country launched a full-scale invasion on February 24, 2022. These events affected the life of every Ukrainian and every company. The changes did not bypass any branch of the country. One of the most affected sectors is the economic sector. The fall of the economy was the worst in the entire history of Ukraine (O. Pogarska, 2023). The change in real GDP over the entire history of Ukraine can be seen in fig. 2.

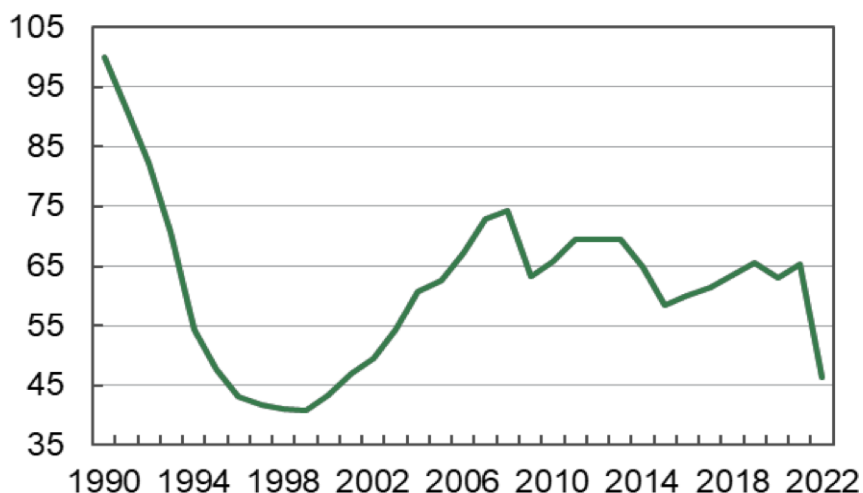


Fig. 2. Dynamics of real GDP in Ukraine for 1990-2022, %.

Source: O. Poharska, *Economy of Ukraine in the conditions of war*, 2023.

We should also note that in 2022 real GDP decreased by 29.1% compared to 2023. Such a significant reduction in GDP is due to the fact that a large number of enterprises either stopped working, or lost or reduced their pre-war capacities. On the 6th month of martial law, the Advancer agency conducted a survey that generally covered medium and small companies. 842 participants took part in the survey. Compared to the business situation on the eve of 2022, about 40% of respondents reported that businesses have completely or almost completely stopped their activities. About 11% of companies noted that they did not change or increased their production volumes (E. Grigorenko, M. Shnitzer, 2023).

Another survey was also conducted in July 2022, which covered owners and representatives of small, medium and large Ukrainian businesses. The survey was conducted by Gradus, where it was determined that only 22% of the 104 respondents surveyed had business as usual. Half of the companies work only partially, and 19% of the participants testified about the suspension of activity (E. Grigorenko, M. Shnitzer, 2023).

The main factors that affected the activity of Ukrainian companies during the martial law:

1. occupation of territories;
2. damage to property, infrastructure and production facilities;
3. rising unemployment;
4. violation of logistics;
5. increased risks and high uncertainty;
6. external and internal population movement;
7. loss of suppliers;
8. decrease in supply and demand.

However, despite the difficult situation, it is worth noting that in 2023, the national economy began to recover due to adaptation to the prevailing situation in the country. A large number of companies were able to adapt to new conditions (National Bank of Ukraine, 2023). For example, the general director of the Esculab medical laboratory, Serhiy Dyadyushko, said that the company had problems with logistics. In the beginning, the goods were sitting at the borders for a very long time, but the supply chains managed to be optimized over time and now the goods are sent almost as fast as before the war (Unian, 2023). The Ukrainian

economy was able to survive all this time not only thanks to the support from other countries, but also because our companies and citizens were able to react quickly in modern situations.

Many enterprises relocated from dangerous regions or from regions under occupation to more distant regions (Lviv, Ivano-Frankivsk, Zakarpattia, Chernivtsi, Khmelnytskyi, Vinnytsia, Ternopil regions). During the year of the war, 800 enterprises were relocated to safer regions. This was reported by Deputy Minister Tetyana Berezyna (Ministry of Economy of Ukraine, 2023). Examples of companies that have relocated are: "Sem Ekopak", "Pozhmanshina", Matrolyuks, etc. (Kunitsky O., 2022). Data on the structure of business relocation are presented in fig. 3.

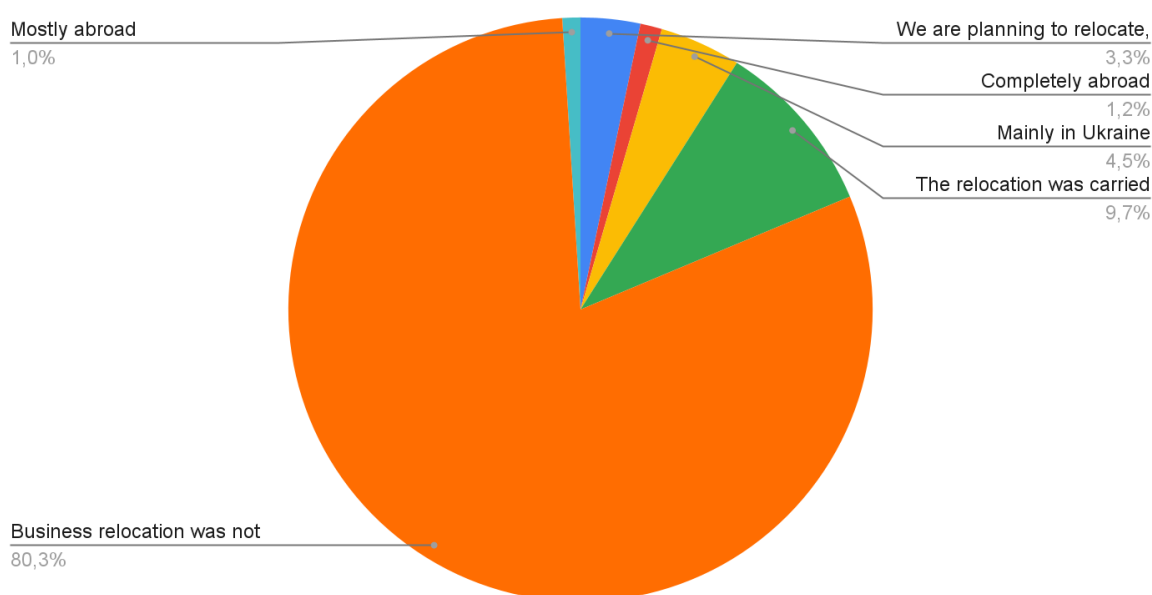


Fig. 3. Structure of Ukrainian business relocation as of January 2023.

Source: Grinchenko R., Kyslychko K., Nechepeliuk V., Onyshchuk V., "Prerequisites for the adaptation of enterprises to changes during the war period", 2023.

An enterprise that has decided to relocate can receive an aid package from the state:

1. location selection for production facilities;
2. assistance with transportation of equipment to a new location;
3. assistance in the placement of workers and the search for new workers;
4. support in the implementation of logistics, procurement of raw materials and the search for a sales market.

It is assumed that the economy will continue to hold up and it will be possible to avoid a decrease in real GDP, which amounted to UAH 3,865,780 million in 2022 (Ministry of Finance, 2023). The state introduced social programs that helped businesses get out of a difficult situation, relocate and continue working. Examples of such measures are:

- compensation for employment of IDPs;
- a digital interaction platform to assist in business relocation;
- grant competitions;
- obtaining financing or the opportunity to apply directly to banking and financial institutions;

- assistance from the Business Ombudsman Council;
- checklist for business (the initiative helps to gather information and help to take real actions for running a business) (Action.Business, undated).

It can be noted that Ukraine is trying to promote the development of enterprises and help them overcome all challenges. In addition to government measures, one should also be very grateful for help from other countries. About 40 countries of the world have provided military, humanitarian and financial support to Ukraine in the amount of almost 185 billion dollars as of July 2023 (Word and Deed, 2023).

To the surprise of the whole world, Ukrainians were able to learn to work during air strikes, long-term blackouts of electricity, Internet, water and heat. Many obstacles have remained in the past, but the military conflict is still ongoing and a huge number of challenges await Ukrainians.

Given the current circumstances, every enterprise must be flexible and able to adapt. Challenges force managers to solve complex problems, be ready for difficulties, flexibly manage business, personnel, fulfill the set goal, develop and improve business management strategies in crisis situations. A great responsibility rests on the management's shoulders. The tasks of managers during martial law are: ensuring the safety and well-being of personnel, managing risks and uncertainties, implementing adaptation of strategies and business plans.

Changes at enterprises are due to the development of the surrounding and internal environment. Companies must constantly adapt to the environment in which they exist. Change management is a process of constantly adjusting the company's direction of activity, changing the behavior of employees in conditions of uncertainty. It should also be taken into account that changes in any unit of the enterprise usually affect the work of the entire company (Porudeeva T., Kishkovska O., Skrypnyk K., 2018).

Effective management of changes at the enterprise in modern conditions is impossible without efforts from both managers and employees. It is clear that the human factor must be taken into account. People cannot always act rationally and logically in critical situations, given the psychological pressure that martial law brings. The inability to cope with changes at the enterprise can be due to many reasons: uncertainty of the staff in the future, unpredictability of the situation, change of place of work, inability of employees to perform new work, great stress, disruption of social relationships and the pace of usual life, change of employee status, lack of motivation, lack of time, lack of qualifications and knowledge, unclear organizational structure, loss of control over changes, violation of established norms of behavior.

According to materials from the German university Hochschule Mittweida, we can say that companies are in a rather tense environment (Fig. 4).

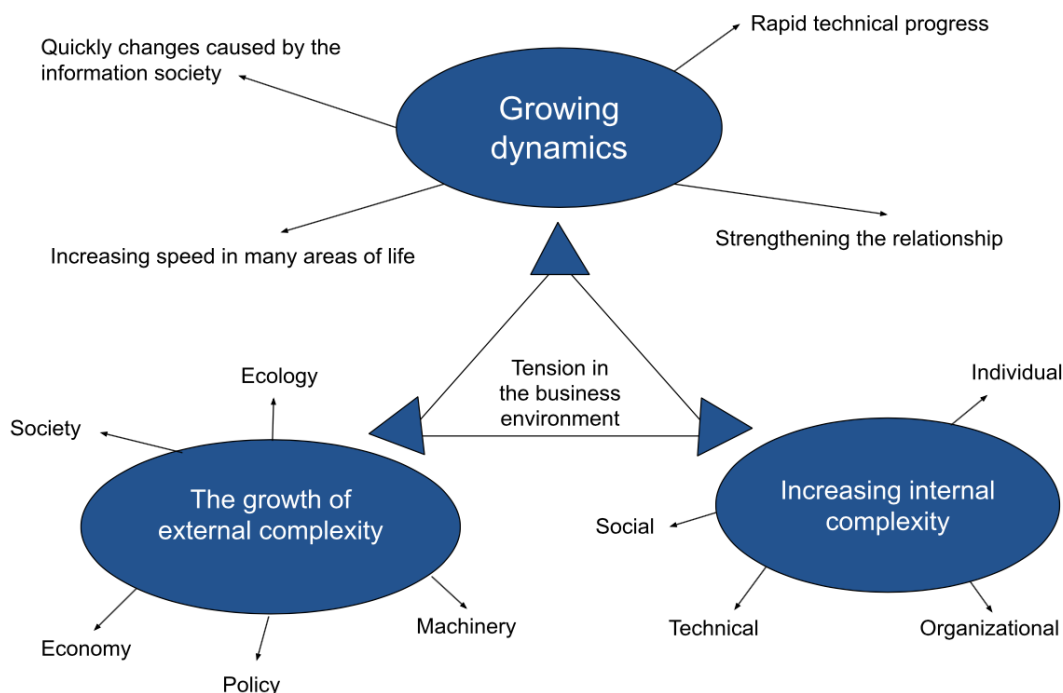


Fig. 4. Tension in the business environment.

Source: Hochschule Mittweida University.

In figure 4 it can be seen that there are a large number of factors that affect the state of tension of the enterprise. These factors are increasing external complexity (society, ecology, technology, economy, politics), increasing internal complexity (social, technical, individual, organizational), and increasing dynamics. For quality management of changes in the enterprise, every entrepreneur should be aware of the existing risks. In addition to the risks that exist in ordinary time, there are added risks that are inherent in the state of war.

Since the beginning of Russia's full-scale invasion of the territory of Ukraine, the main challenges for enterprises have been a decrease in demand and financial capabilities of customers, disruptions in supply chains and a shortage of financing. As a result of the decrease in the purchasing power of Ukrainians, food products with a maximum shelf life and affordable prices are now in the greatest demand. In the first month of the summer of 2022, the "Silpo" supermarket chain recorded a significant increase in the purchase demand for salt, soda, vinegar and sugar. Sales of salt increased by four times, soda - by 3.5 times, vinegar - by three times, and sugar - by two times (Unian, 2022).

In September 2022, 12.2% of surveyed SME owners and CEOs chose the destruction of supply chains as a barrier to functioning and growth (Diya.Business, 2022). The lack of financing is reflected in the fact that the state has a budget deficit, and foreign investments enter the Ukrainian market with difficulty. Among other problems are rising prices for materials, raw materials, and energy sources, lack of credit funds, and lack of a sufficient number of qualified workers.

The uncertainty of the modern state is a reality that modern organizations have to deal with. Adapting to any changes in the enterprise requires certain efforts not only from managers, but also from all personnel. An important aspect is the psychological adaptation of employees in the company to new changes.

During the state of war, the economy and business are subject to changes in macroeconomic processes, the demographic situation, conditions for the supply of products and services to the market, and business financing. In such a situation, general management methods do not always work. It is necessary to direct the forces of the organization to adapt to changing conditions and the behavior of interested parties, maintain old partnerships and establish new relationships, update technology, style and management methods (Galushka Z., 2022).

Now it is important to make efforts to interact with stakeholders. Stakeholders are all interested parties of the company who have relations with it and thus influence the company's actions. These include investors, employees, creditors, customers, suppliers, competitors, the state and society. That is why the culture of the organization must have trust, preserve norms and values, implement elements of corporate culture, adhere to the principles when determining priorities.

The leader's leadership should be close to ideal for the efficient functioning of the company. It is also necessary to learn stress management tools, which include delegation of responsibilities, independence in decision-making, effective use of time and staff motivation.

It is important to understand how an enterprise can effectively cope with changes during martial law. Adaptation measures that can be applied by small companies: changing the usual business processes, changing the management style, planning operational activities for a short time, reducing staff and forced increase of work for the remaining employees. In addition, the company's strategic plan must be edited, new paying customers, partners, suppliers must be involved. It is also necessary not to forget about the financing of the company (Peshkov A., 2023).

In order to adapt their activities, large companies must analyze the situation and develop products to meet the new needs of customers; increase the volume of work and redistribute responsibilities among employees, reduce the number of personnel; think through your strategy plan. The company's strategic tasks for adaptation are logistics settings; search for new suppliers, customers; access to international markets (Peshkov A., 2023).

An important means of support for entrepreneurs is training. To achieve success, you need to constantly learn and develop. At the same time, it should be done not only by the entrepreneur, but also by the team. Training can be carried out in the format of educational trainings, lectures, courses and seminars. This can improve the company's adaptability to changes and help achieve a more efficient result in the enterprise's activities.

It is interesting to note that the war affected the activities of Ukrainian enterprises. For example, new enterprises with the production of military equipment appeared. In the summer of 2022, the state could purchase drones from only 7 companies. As of August 10, 2023, drones can be produced and sold by 40 companies. At the same time, the number of UAV manufacturers should double to 70 by the end of this year (Nesenyuk, A., 2023). The increase in the production of drones in Ukraine can be seen in fig. 5. This sphere would not be so developed in Ukraine now if there was no demand for these goods.

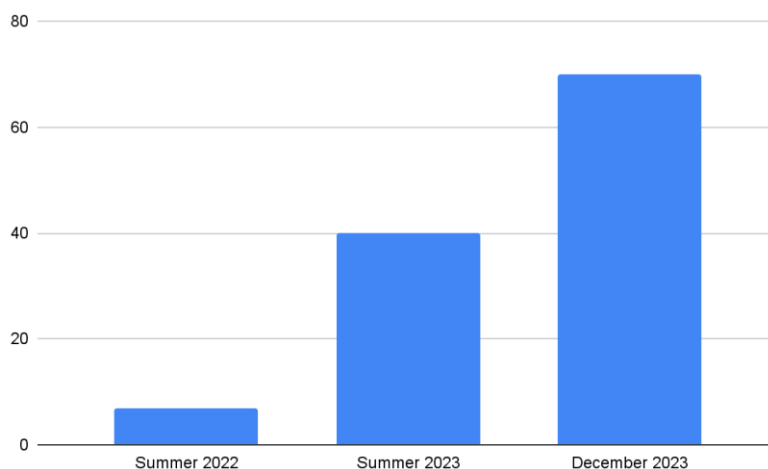


Fig. 5. Production of drones in Ukraine.

Source: Compiled by authors based on Forbes, 2023

Also, some enterprises decided to expand their activities and enter the international market. The reason for this was the external migration of a large number of people. Ukrainians are used to national products and the level of service. That is why there was a demand for Ukrainian goods abroad. In addition, due to the close cooperation of other countries with Ukraine, there are more opportunities for companies to enter the international market. For example, "Nova Poshta" has already opened in Lithuania, Moldova, Germany, Poland, Romania and the Czech Republic. "Lviv Croissants" and "Drunken Cherry" currently operate in Poland. Despite the fact that these companies plan to further develop their markets. According to the Mastercard SME Index study, 28% of Ukrainian enterprises operating during the war have already expanded their activities outside the country. Another 21% of enterprises plan to do so in the near future (Economic truth, 2022).

According to the data of the Mastercard SME Index study, the most priority countries that Ukrainian companies can potentially consider for expanding their activities are presented in Fig. 6.

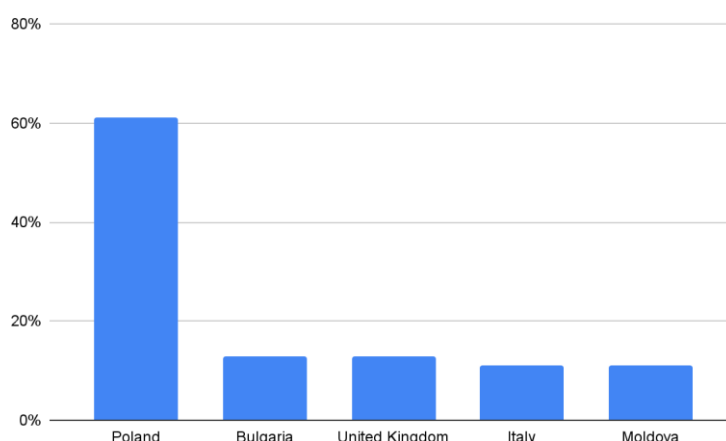


Fig. 6. Priority countries for the expansion of Ukrainian business.

Source: compiled by the authors based on the article "Business during the war: how many entrepreneurs started working "abroad"", 2022.

At the same time, entering international markets is accompanied by a number of problems. Thus, our companies lack finance, qualifications and production equipment to enter foreign markets. According to the Mastercard SME Index study, the following areas may become the most potential Ukrainian bestsellers in the world: IT services (49%), designer clothes (28%), craft products (26%) and jewelry, including jewelry (23%) (Economic Pravda, 2022).

The European Business Association has created a system - Global Business For Ukraine, which will help foreign companies interact with Ukrainian ones. The program should facilitate the transition of Ukrainian business to the international market, and attract global enterprises to the Ukrainian market.

In addition, the Ministry of Foreign Affairs launched the Nazovni platform, which helps companies negotiate with countries and solve specific problems when entering new markets (Economic Truth, 2022).

It is also important to note that domestic companies managed to adapt to the deterioration of business conditions, especially adapting to blackouts of electricity, Internet and water. All business entities that sought to continue working under martial law underwent changes. For example, problems with energy supply in the winter of 2022 could completely stop the country's economy, but Ukrainian companies quickly adapted. Generators, satellite communication terminals were purchased for operation, schedules and working conditions were also revised. It was a rather difficult period for both people and businesses.

For the operation of the supermarket, the generator is enough for 6 hours. However, if the light did not appear during this time, the supermarket had to close. In order to adapt to the changes, the networks purchased a large number of generators. Silpo and ATB said that the power outage has slightly changed the assortment in their stores. The amount of perishable products was reduced: fish, dairy products and frozen semi-finished products (Economichna pravda, 2022).

The state is also currently warning businesses to be prepared for winter blackouts in 2023-2024. In October 2022, ex-Minister of Energy Ivan Plachkov stated that Ukraine's energy system has only 30% of its potential due to damage (Economic Truth, 2022).

However, it is worth noting that there are companies that were able to cope with changes in the enterprise during martial law. LLC "BMU-3" is a leading construction company located in the city of Vinnytsia and engaged in housing construction. The company's portfolio includes more than 90 completed projects with an area of 700,000 square meters, including residential, administrative and commercial projects. The main activities of the company are construction of residential and non-residential buildings, mining of sand, gravel, clay and kaolin, production of other wooden construction structures and products (Concern Podillya, b.d.).

With the beginning of the war, the BMU-3 company faced a number of problems, including temporary production losses, logistical problems, a fuel crisis, and the mobilization of workers into the ranks of the Armed Forces. In general, the sale of products - the sale of housing - was suspended.

To manage change in the enterprise, the company moved from long-term planning to short-term planning, and in addition, each department developed its own crisis preparedness plan. They began to apply a simplified regime for regulating labor relations on an individual

basis, that is, between an individual employee and an employer. A simplified regime for regulating labor relations on an individual basis, i.e. between an individual employee and an employer, was also introduced.

To date, the Ukrainian authorities have introduced the "Yeoselya" monetary program, which allows young professionals to get a loan at 3% or 7% for the purchase of housing (Diya. Yeoselya, n.d.). According to this program, LLC "BMU-3" sold 60 ready-made apartments.

During the full-scale war, LLC "BMU-3" faced a large number of challenges and problems. However, the company was able to cope with all these changes by applying a number of effective strategies and management methods. For example, short-term planning, crisis preparedness plans, individual regulation of labor relations, use of the Yeosel monetary program. These strategies gave the organization of LLC "BMU-3" flexibility to new conditions and allowed it to successfully cope with changes at the enterprise during martial law. The company uses all resources and opportunities to continue its activities.

Conclusions. Therefore, during martial law, business faces many obstacles and challenges that can negatively affect its operations. Ukrainian enterprises lack knowledge, expertise and technologies to effectively manage all changes in the enterprise. Also, the business is faced with a shortage of qualified personnel, the difficulty of obtaining profit from its activities and constant adaptation to new conditions. In addition, increasing competition, lack of paying customers, insufficient financial resources and economic instability can be a problem for the enterprise.

However, strategic management, communication, conservation of resources and quick adaptation to new market conditions can contribute to the sustainability of the enterprise during martial law and ensure its survival and further development. In addition, support from the Ukrainian government and other countries plays an important role in the adaptation of enterprises to such difficult conditions. Various national and international programs help enterprises to obtain financial support, information support and logistical assistance, which will allow companies to effectively carry out their activities.

References

1. Porudeeva T., Kishkovska O., Skrypnyk T. (2018). Theoretical foundations of change management at the enterprise. *Economy and society* (19). Retrieved from <https://doi.org/10.32782/2524-0072/2018-19-88>
2. Zapukhlyak I., Zelinska G. and Pobigun S. (2018). Approaches, methods and tools of change management in the enterprise development management system. *Global and National Economic Issues*, (23), 204–209. Retrieved from <http://global-national.in.ua/archive/23-2018/41.pdf>
3. Grinchenko R., Kyslychko K., Nechepeliuk V., Onyshchuk V. (2023). Prerequisites for the adaptation of enterprises to changes in the wartime period. *Scientific bulletin of Odessa National University of Economics*, 5-6(306-307), 91–100. Retrieved from <https://doi.org/10.32680/2409-9260-2023-5-6-306-307-91-100>
4. O. Poharska (2023, June 1). The economy of Ukraine in the conditions of war. National Bank of Ukraine. Retrieved from https://bank.gov.ua/admin_uploads/article/Poharska_pr_01-02.06.2023.pdf?v=4
5. National Bank of Ukraine. (2023, April 14). Commentary of the National Bank on changes in real GDP in 2022. Retrieved from <https://bank.gov.ua/ua/news/all/komentar-natsionalnogo-banku-schodo-zmini-realnogo-vvp-u-2022-rotsi>
6. Grigorenko E., Shnitzer M. (2022, December 15). As after the war, Ukraine should restore the economy and business. A big study — Forbes.ua. *Forbes.ua | Business, billionaires, news, finance, investments, companies*. Retrieved from <https://forbes.ua/money/yak-pisslya-viyni-ukraina-mae-vidnovlyuvati-ekonomiku-ta-biznes-velike-doslidzhennya-deloitte-15122022-10501>
7. Time for work: how Ukrainian business recovered and adapted during the war year. (2023, February 22). *News of Ukraine - the latest news of Ukraine today - UNIAN*. Retrieved from

- <https://www.unian.ua/economics/finance/chas-dlya-roboti-yak-vidnovlyuvavsya-ta-adaptuvavsya-ukrajinskiy-biznes-za-rik-viyni-12154170.html>
8. During the year of the war, 800 enterprises were transferred to safer regions, - Tetyana Berezhna. (2023, March 2). Ministry of Economy of Ukraine. Retrieved from <https://www.kmu.gov.ua/news/za-rik-viiny-v-bilsh-bezpechni-rehiony-relovano-800-pidpriemstv-tetiana-berezhna>
 9. Kunytskyi, O. (2022, May 4). Relocation to the west of Ukraine: how business flees from war - DW - 05/04/2022. Retrieved from dw.com. <https://www.dw.com/uk/relokatsiia-na-zakhid-ukrainy-yak-biznes-riatuie-vyrobnytstvo-vid-viiny/a-61669236>
 10. Gross domestic product (2002-2022). (b. d.). Rates, indexes, tariffs. Retrieved from <https://index.minfin.com.ua/ua/economy/gdp/>
 11. Business support during wartime. (dateless). Action. Business - Main page. Retrieved from <https://business.dia.gov.ua/wartime>
 12. Which allied countries make the biggest contribution to the victory of Ukraine. (2023, July 17). Word and Deed. Received from <https://www.slovoidilo.ua/2023/07/17/infografika/ekonomika/yaki-krayiny-soyznyky-robyat-najbilshyi-vnesok-peremohu-ukrayiny>
 13. Serge Velasco. (dateless). Basics of corporate management. University of Hochschule Mittweida. Retrieved from <https://drive.google.com/drive/folders/11GKWLrWRSMxxosu9MghGgNVWxkyJlJtm>
 14. We will buy after the victory: how the war changed the consumer attitudes of Ukrainians. (b. d.). News of Ukraine - the latest news of Ukraine today - UNIAN. Retrieved from <https://www.unian.ua/economics/other/kupimo-vzhe-pislya-peremogi-yak-viyna-zminila-spozhyvchi-nastroji-ukrajinciv-ostanni-novini-11895465.html>
 15. State and needs of business in Ukraine: sectoral breakdown, September 2022. (b. d.). Action. Business - Main page. Retrieved from <https://business.dia.gov.ua/cases/novini/stan-ta-potrebi-biznesu-v-ukraini-sektoralnij-rozriz-veresen-2022>
 16. Galushka Z. (2022). Change management strategy in conditions of uncertainty. Theory and practice of management (p. 102–104). Retrieved from https://archer.chnu.edu.ua/jspui/bitstream/123456789/4450/1/Teop_np_MEH_36_vez_2022.pdf
 17. Peshkov A. (2023). Business in Focus of Martial Law: Adaptation and Priorities. In Managing the development of socio-economic systems (p. 183–188). Retrieved from https://repo.btu.kharkov.ua/bitstream/123456789/32267/1/VII_konf_URSES_DBTU_2023-186-189.pdf
 18. A. Nesenyuk (2023, August 10). Ukraine increases the production of drones 100 times, but this is still not enough. Mykhailo Fedorov about UAH 4 billion for UAVs, 40,000 Starlinks and prospects. The main thing about iForum is Forbes.ua. Forbes.ua | Business, billionaires, news, finance, investments, companies. Retrieved from <https://forbes.ua/innovations/ukraina-naroshchue-virobnitstvo-droniv-u-sto-raziv-ale-tsogo-vse-odno-nedostatno-mikhaylo-fedorov-pro-4-mlrd-grn-na-bpla-100-000-starlink-ta-perspektivi-golovne-z-iforum-10082023-15361>
 19. Economic truth. (2022, December 8). Business adapted to the war, changing resuscitation to scaling. Retrieved from <https://www.epravda.com.ua/columns/2022/12/8/694738/>
 20. Economic truth. (2022, September 27). Business during the war: how many entrepreneurs started working "abroad". Retrieved from <https://www.epravda.com.ua/news/2022/09/27/691914/>
 21. Economic truth. (2022, December 7). Generator effect: Businesses adapt to outages and this affects prices. Retrieved from <https://www.epravda.com.ua/publ>

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THE ROLE OF ORGANIZATIONAL CULTURE IN FORMING THE DEVELOPMENT STRATEGY OF THE ENTERPRISE

Abstract. In the context of the modern business environment, which is characterized by instability, rapid changes and a high level of competition, enterprises must look for new
Hochschule Mittweida

ways to increase competitiveness. Organizational culture determines the company's flexibility and ability to adapt to changes, which is critically important for the effective formation of a company's development strategy, since only those companies that are able to quickly and effectively adapt to new conditions, become market leaders. The purpose of the article is to deepen the understanding of the relationship between organizational culture and the processes of forming the company's development strategy in conditions of uncertainty and a changing external environment. In order to achieve the goal, the task of determining the influence of the internal aspects of the enterprise's organizational culture on the processes of strategy formation and implementation in conditions of constant changes, as well as establishing their relationship, was performed. The article analyzes the impact of organizational culture on the formation of the company's development strategy in the changing conditions of the external business environment. The key aspects of the organizational culture's formation, such as leadership, communications, values and norms, as well as their correlation with the processes of developing the company's strategy, are considered. Practical recommendations on the formation of the company's development strategy have been developed, which can be applied in the practice of domestic business structures.

Keywords: organizational culture, strategic management, changing business environment, enterprise strategy, adaptation to changes, key success factors.

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РОЛЬ ОРГАНІЗАЦІЙНОЇ КУЛЬТУРИ У ФОРМУВАННІ СТРАТЕГІЇ РОЗВИТКУ ПІДПРИЄМСТВА

Анотація. В контексті сучасного бізнес-середовища, яке характеризується нестабільністю, швидкими змінами та високим рівнем конкуренції, підприємства повинні шукати нові шляхи підвищення конкурентоспроможності. Організаційна культура визначає гнучкість та здатність компанії адаптуватися до змін, що є критично важливим для ефективного формування стратегії розвитку підприємства, оскільки тільки ті підприємства, що здатні швидко та ефективно адаптуватися до нових умов стають лідерами на ринку. Мета статті полягає в поглибленні розуміння взаємозв'язку між організаційною культурою та процесами формування стратегії розвитку підприємства в умовах невизначеності та мінливого зовнішнього середовища. Задля досягнення мети в роботі виконано завдання щодо визначення впливу внутрішніх аспектів організаційної культури підприємства на процеси формування та реалізації стратегії в умовах постійних змін, а також встановлення їх взаємозв'язку. У статті проаналізовано вплив організаційної культури на формування стратегії розвитку підприємства в мінливих умовах зовнішнього бізнес середовища. Розглянуто ключові аспекти формування організаційної культури, такі як лідерство, комунікації, цінності та норми, а також їх взаємозв'язок з процесами розробки стратегії підприємства. Розроблено практичні рекомендації щодо формування стратегії розвитку підприємства, які можуть застосовуватись в практиці вітчизняних бізнес-структур.

Ключові слова: організаційна культура, стратегічне управління, мінливе бізнес-

середовище, стратегія підприємства, адаптація до змін, ключові фактори успіху.

Problem statement. In the conditions of constant changes in the modern business environment, there is a need to study the relationship between organizational culture and the company's development strategy. This becomes an important task for the successful functioning of the enterprise, especially in today's conditions of uncertainty. Organizational culture defines the values, beliefs and norms that pervade the company's activities, while the strategy defines the way to achieve the set goals.

One of the key challenges is to determine how organizational culture can influence the choice and implementation of strategy in the face of uncertainty and change. Can it be a catalyst or a brake for innovation and adaptation? What aspects of culture are important to a successful strategy in an environment where even the best strategies may require adjustments after a short period of time?

Relevance of the chosen topic. The relevance of the chosen topic cannot be overestimated in the context of the modern business environment, which is characterized by instability, rapid changes and a high level of competition. Organizations that are able to effectively adapt to new conditions usually become market leaders. Organizational culture acts as a foundation for strategy formation, influencing decision-making, communication, innovation potential and the enterprise's ability to adapt. Understanding the importance of this influence can be a key factor in achieving competitive advantage. Determining the role of organizational culture in the formation of the company's development strategy is an extremely urgent task in the modern business environment. Organizational culture defines the basic values, attitudes and internal norms that are necessary for the formation and implementation of strategy. Organizational culture forms a common, understandable framework for all employees of the enterprise. This is important in strategy formation, as a common identity and mutual understanding contribute to effective team work and the realization of strategic goals. Thus, in the light of modern trends, such as rapid technological changes, globalization of markets and the growing role of corporate responsibility, the question of the organizational culture's influence on the formation of the company's development strategy acquires a new level of importance.

Analysis of recent research and publications. N. O. Yevtushenko (2020) considers the problems of managing organizational culture, in particular, how it affects the strategic decisions of the enterprise. The author provides examples of effective practices of managing organizational culture that contribute to the achievement of strategic goals. The author also emphasizes the importance of internal coordination of the company's culture and development strategy to achieve its stability and success [1].

Petelko T. P. (2020) considers the role of organizational culture in the process of adapting to market challenges and implementing strategic initiatives. Her research indicates that a successful strategy requires a deep understanding of the enterprise's cultural characteristics and their influence on strategic decisions [2].

Oliynyk T. I. (2021) claims that organizational culture affects the ability of an enterprise to effectively respond to changes in a changing environment and opportunities for strategic development, and also defines key aspects that should be taken into account when forming a culture in order to achieve strategic goals [3].

I. V. Ivantsova (2020) investigates the process of organizational culture formation and its influence on the efficiency of enterprise functioning. She analyzes various mechanisms of culture formation and their effectiveness in achieving strategic goals, and also points out the importance of taking cultural aspects into account when forming and implementing a development strategy [4].

According to the results of the scientific research analysis on this topic, it can be noted that organizational culture plays a key role in the process of forming the company's development strategy in the conditions of a changing business environment. In general, scientific research indicates the need to integrate aspects of the organizational culture formation of the enterprise into strategic management in order to achieve success in conditions of uncertainty and constant changes.

Purpose of the article. To deepen the understanding of the relationship between organizational culture and the processes of forming a company's development strategy in conditions of uncertainty and a changing external environment. Achieving the set goal made it necessary to solve the following tasks:

- to analyze the impact of internal aspects of the enterprise's organizational culture on the processes of strategy formation and implementation in conditions of constant changes;
- to determine key factors of interaction between organizational culture and enterprise strategy;
- reveal the influence of organizational culture on the success of the enterprise in a dynamic business environment.

Presentation of the main research material and results obtained. Lean Organizational culture is an important aspect of enterprise management and can significantly influence its success and sustainability in a competitive environment.

As it is known, the organization of the business management process is the implementation of elements of regular management. Moreover, this process includes only those functions and actions that are related to the coordination and establishment of interaction within the organization, with the motivation to carry out production and other types of activities, with their target orientation [10]. The formation of organizational culture is distinguished among the main types of management activities in the organization of business management (Fig. 1.).

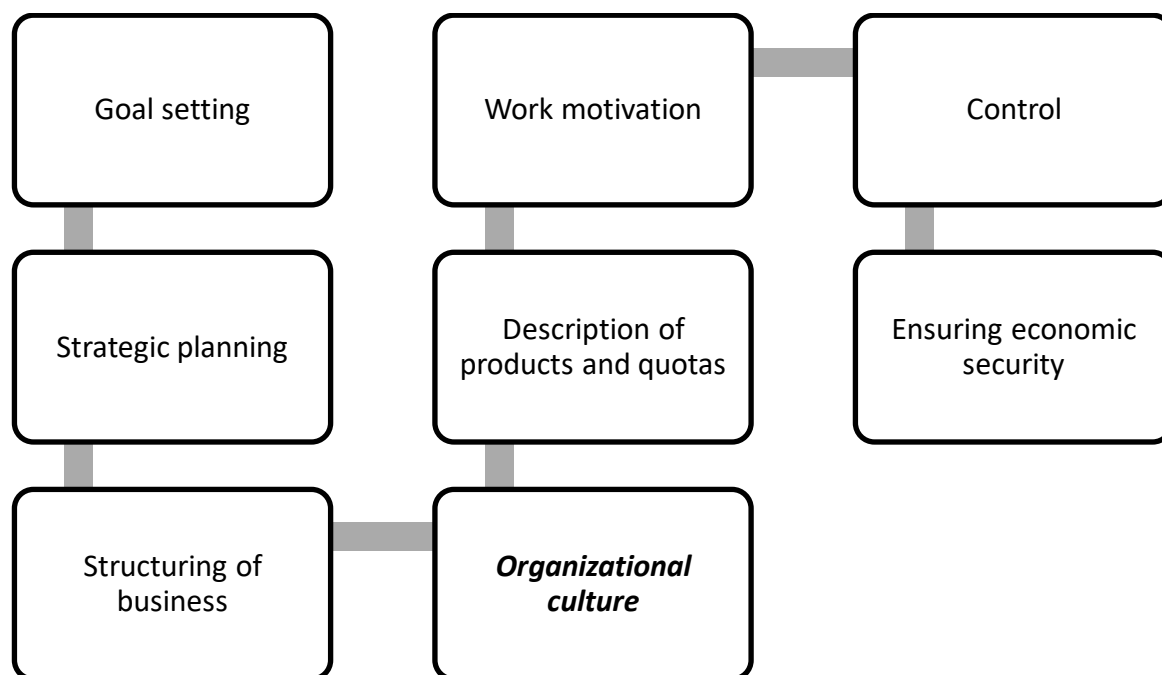


Fig. 1. Types of management activities in the organization of business management
 Source: built by the author from the materials [10]

The importance of organizational culture in enterprise management can be considered from different positions, in particular:

- stimulation of employee efficiency: organizational culture determines values, norms and expectations in the organization. If these elements support shared goals and encourage high levels of task performance, this can lead to increased employee performance.
- retention and attraction of talented personnel: organizational culture affects the attractiveness of the enterprise for potential employees. If the culture matches the values and expectations of professionals, it can lead to retention and attraction of talented staff.
- creation of a favorable working environment: a properly formed organizational culture contributes to the creation of a positive and favorable working environment. This can increase employee satisfaction, reduce stress levels and support team spirit.
- support of strategic direction: organizational culture can play a key role in the implementation of the enterprise's strategic goals. When the culture is aligned with the strategic direction, employees are more likely to make decisions and act on strategic objectives.
- adaptation to changes: A flexible and open organizational culture facilitates adaptation to changes in the business environment. When employees have a positive attitude towards innovation and change, it helps to respond quickly to challenges and ensures the company's competitiveness.

As part of the analysis of the relationship between the organizational culture and the company's strategy, carried out in this study, complex and complementary aspects that affect the success of the company in the conditions of a changing environment were revealed.

1. Organizational culture as a key factor in strategic problem solving. The effectiveness of strategic problem solving is closely related to a developed and internally consistent organizational culture. Enterprises where there is a high level of mutual understanding, cooperation and openness among employees are able to adapt more effectively to changes in the external environment.
2. Interaction of cultural elements and strategic goals. More effective implementation of strategies is observed in enterprises where cultural values are harmonized with strategic goals. Organizational culture acts as a guiding mechanism for awareness and acceptance of strategic initiatives.
3. The role of leadership in the formation of cultural and strategic aspects. Leadership has a decisive influence on the formation of organizational culture and the definition of strategic directions. Effective leadership contributes to the creation of a favorable environment for the implementation of business strategies.
4. Adaptation of culture and strategy to changes. Enterprises with a high level of adaptive abilities of organizational culture and strategy respond more effectively to changes in the economic, technological and socio-cultural environment.

The influence of crisis situations on the interaction of cultural and strategic components. In crisis situations, it is important to maintain the stability of organizational culture, because it is the basis for choosing and implementing optimal strategies in conditions of instability.

Aspects of the relationship between organizational culture and the company's development strategy are shown in Figure 2.

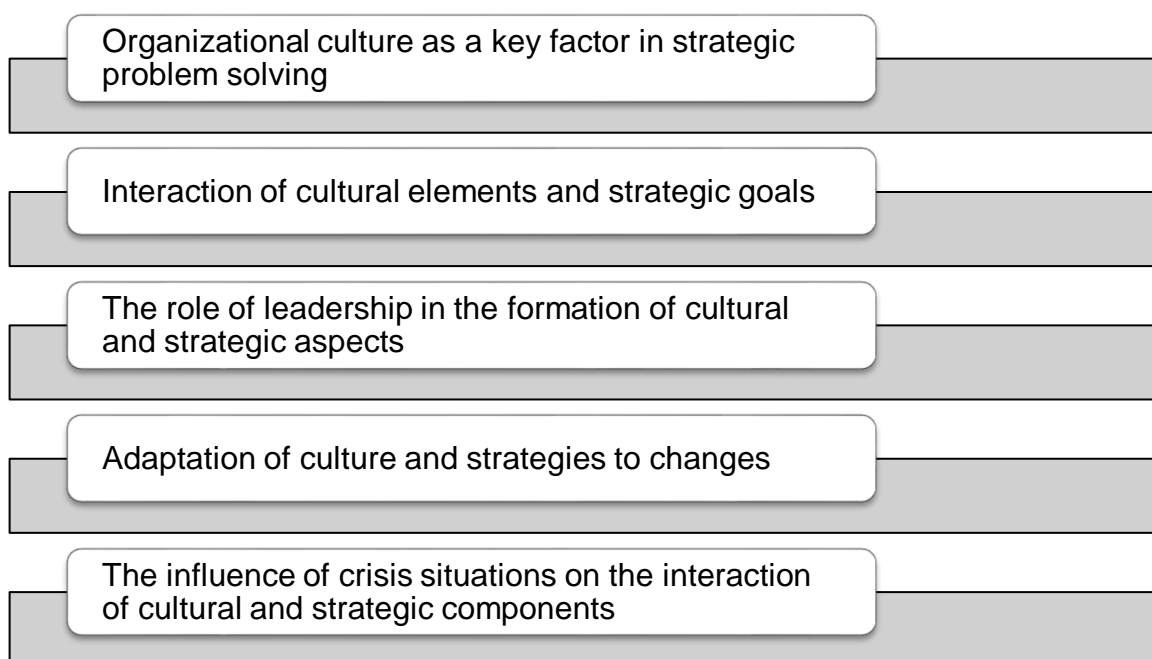


Fig. 2. Aspects of the relationship between organizational culture and enterprise's strategy
Source: compiled by the authors

In real examples of companies, it is also possible to observe the relationship between organizational culture and the formation of the company's development strategy, which affects their success and stability in the face of change.

1. The company GoogleInc. It is a vivid example of a company where organizational culture directly affects strategic choices. Based on the principles of creativity, openness and innovation, Google's culture promotes the choice of strategies aimed at the development of innovative products and technologies [5].
2. SouthwestAirlines is characterized by a strong organizational culture aimed at creating a favorable environment for employees and passengers. Their strategy includes low prices, high levels of service and other aspects that reflect the company's cultural values [6].
3. Organizational culture of AppleInc. is based on the principles of design and innovation, which is embodied in the strategy of developing unique and high-quality products. The company prioritizes creativity and high standards, which determines the direction of its strategic decisions [7].
4. Zappos is known for its unusual organizational culture that supports individuality and creativity. The company implements strategies aimed at creating a unique customer experience. In addition, the strategy of this company is based on supporting the personal development of employees and providing high-quality service [8].
5. Procter&Gamble is an example of a company where an organizational culture focused on commitment to goals and teamwork influences product positioning strategies and innovation development [9].

Therefore, the practice of global companies, the distinguishing characteristics of which are a strong organizational culture and strong competitive positions formed over a long history of development, confirms the fact that a deep understanding of the culture of one's company and the everyday behavior that shapes it is an effective tool for seeing and using new opportunities for achievement of business goals, expansion of the business partners network who share values and norms of morality in conducting business, which significantly increases the chances of competitive success.

A kind of algorithm for using the potential of organizational culture as a competitive advantage of the company is quite simple. First of all, you should start with the diagnosis of the current state of the organizational culture and conduct an analysis of how the culture of the company contributes to or hinders the changes taking place in it in the current situation, how it affects the achievement of business results. The next step should be to determine which cultural characteristics and behavior patterns need priority strengthening and development in order to effectively influence the achievement of the company's goals. The first two stages will give an idea of both the objects of management (elements of organizational culture), and will allow to determine which new competencies are necessary for the implementation of the third stage - proactive management of the company's culture. The basis of this algorithm should be the consistency of the triad "enterprise strategy - operational model - organizational culture". In this case, company management often prefers to focus on the first two elements, believing that they are much easier to manage. P. Drucker once warned about this management mistake, noting that "culture eats strategy for breakfast" [11]. The essence of this remark is that the business result depends to a greater extent on how the staff will act to achieve the set strategic goals, and to a lesser extent on the chosen strategy and operating model. Research confirms that businesses with a cohesive and unique organizational culture double their chances of demonstrating sustainable growth and increasing their profits.

Therefore, the experience of foreign corporations indicates the formation of a company's development strategy on the basis of important aspects of organizational culture, which also become guiding principles for its implementation and determine the success of

companies in various areas of business. In addition, the relationship between these elements can serve as a source of competitive advantages and key success factors in a changing environment.



Fig. 3. The influence of organizational culture on the strategy implementation process
Source: compiled by the authors

1. Increasing the level of adaptive capabilities of the enterprise. Provided that the organizational culture is fully aligned with the strategy, the company has the ability to quickly adapt to changes in the external environment. When these two aspects interact harmoniously, the enterprise becomes more flexible and able to respond effectively to new challenges and opportunities;
2. Increasing the involvement of employees. The relationship between culture and strategy can have a positive impact on employee engagement and motivation. When employees perceive the organization's values as their own, they are more likely to participate in the achievement of strategic goals, which leads to increased productivity and the quality of their work;
3. Increasing the level of innovativeness. The organizational culture should be aimed at supporting innovation, in combination with the appropriate strategy, and form a favorable environment for the development and implementation of innovative strategic solutions. This, in turn, increases the competitiveness of the enterprise due to the ability to quickly adapt to changing market requirements
4. Improving the interaction between internal and external stakeholders: The organizational culture of the enterprise should also be laid in the foundations of the cooperation strategy with stakeholders. Effective interaction with customers, suppliers and other interested parties contributes to increasing the competitiveness of the enterprise.
5. Ensuring long-term sustainability. Organizational culture and strategy must be aligned in such a way as to ensure a balance between short-term and long-term development goals. This, in turn, contributes to the stability of the enterprise in relation to economic, socio-cultural and technological changes.
6. Increasing the level of competitiveness. The overall efficiency of the enterprise increases due to the optimization of internal processes and resource management, which makes the enterprise more competitive in the market.

Therefore, the analysis of the organizational culture influence on the processes of strategy implementation not only indicates their importance separately, but also emphasizes that the role of organizational culture is a key factor in achieving the success of an enterprise in the conditions of today's changing business environment.

Thus, taking into account the importance of organizational culture in enterprise management, its relationship with development strategy, as well as the experience of foreign corporations in the formation of a development strategy based on the key aspects of organizational culture, the following practical recommendations are offered for the formation of an enterprise development strategy, which can be applied in practice of domestic business structures, namely:

1. Persuasion and involvement of personnel. Implementation of any changes requires a high level of support and involvement of staff. Ensuring their understanding, loyalty and positive attitude towards the implementation of the strategy is an important element of the company's success. Therefore, when forming a strategy, it is necessary to take into account the different views and interests of each employee, which, in turn, contributes to reducing the level of their resistance.
2. Control and evaluation of results helps to identify problems in time and adjust the strategy in order to achieve the best results.
3. Involvement of stakeholders. Ensuring interaction with all interested parties, including customers, partners and other stakeholders, their cooperation and communication contributes to effective strategy formation and avoiding conflicts in the future.
4. Education and training of personnel. Education and training of personnel is an important element of the formation and implementation of the company's strategy. This process helps to improve work processes, increase labor productivity and competitiveness of the enterprise, and also creates an appropriate organizational climate in order to attract and retain highly qualified employees.
5. Risk analysis. A thorough analysis of potential risks and possible failures is a key step in strategy formation, and this process is directly related to organizational culture. The relationship with organizational culture is how employees perceive risks, and this, in turn, determines the success or failure of the company's strategic initiatives. For example, companies with an open and innovative culture may view risks as opportunities for growth and development, while under a conservative type of culture, staff are less willing to take risks.
6. Taking cultural features into account, as culture determines values, beliefs and methods of interaction among employees and top management of the enterprise, which also helps to avoid conflicts.

It should be noted that in the Ukrainian business environment, the role of organizational culture in the formation of the company's development strategy remains underestimated. The management of domestic enterprises should study the best experience of foreign companies with a strong organizational culture, critically evaluate and use it, while adapting it to the realities of the Ukrainian business environment. This becomes especially important in the context of crisis phenomena that have covered the social, economic, ecological and geopolitical spheres, which requires business to improve the quality of all management processes, which is simply impossible to achieve in the case of a weak organizational culture.

It is indisputable that the construction of corporate relations, which include both internal and external stakeholders of the enterprise, should be based on a personalized approach, individual service, trust, and adherence to moral and ethical principles as indestructible rules of business conduct. All this requires the use of a complex of formal and informal tools, the formation of new models of behavior aimed at the development of cooperative relations within the framework of a single team - the company's management and its employees, partnership relations with consumers, interaction with the business community on the basis of parity and mutual respect. And these values are formed by the organizational culture, and therefore its development requires the primary attention of the company's management.

Conclusions. The work defines the role of organizational culture in the process of forming the company's development strategy. Flexibility, openness to change, the ability to adapt - all these aspects, which are formed through organizational culture, are key in the framework of the formation and implementation of the company's development strategy in the conditions of a changing external business environment. The analysis results of the latest research and publications on the selected topic confirm that organizational culture plays a key role in the process of forming the company's development strategy in the conditions of a changing business environment. In general, scientific studies indicate the need to integrate aspects of the formation of the enterprise's organizational culture into strategic management in order to achieve success in conditions of uncertainty and constant changes. The formation of the organizational culture is distinguished among the main types of management activities in the organization of business management. The work substantiates the importance of organizational culture in the management of the enterprise from various positions, in particular, stimulating the efficiency of employees, retaining and attracting talented personnel, creating a favorable working environment, supporting strategic direction and adapting to changes.

Based on the analysis results of the relationship between the organizational culture and the company's strategy, the article reveals complex and complementary aspects that affect the success of the company in a changing environment, namely, it is substantiated that organizational culture is a key factor in strategic problem solving, the role of cultural elements in the formation of strategic goals, the role of leadership in the formation of cultural and strategic aspects, the importance of adapting culture and strategy to changes in the external environment is established, and the impact of crisis situations on the interaction of cultural and strategic components is determined.

In addition, the article analyzes the experience of foreign corporations with regard to the formation of an enterprise development strategy based on important aspects of organizational culture. It was revealed that the practice of global companies, the distinguishing characteristics of which are a strong organizational culture formed over a long history of development and strong competitive positions, confirms the fact that a deep understanding of the culture of one's company and the everyday behavior that forms it is an effective tool for seeing and using new opportunities to achieve business goals, expand the network of business partners who share values and moral standards in business management, which significantly increases the chances of competitive success in a changing external business environment. Taking into account the above, the article contains practical recommendations for the formation of an enterprise development strategy that can be applied in the practice of domestic business structures.

Taking into account the results of the conducted research, as well as taking into account the development of business digitalization processes, further scientific research

should be directed at substantiating the role of the enterprise's organizational culture in ensuring its innovative development.

References

1. Ievtushenko, N. O. (2020). Upravlinnia orhanizatsiinoiu kulturoiu pidpriemstva [Management of the organizational culture of the enterprise]. Kyiv: 86 pp.
2. Petelko, T. P. (2020). Realizatsiia konkurentnoi stratehii pidpriemstva v umovakh minlyvoho rynkovoho seredovyscha [Implementation of the company's competitive strategy in the changing market environment]. Dnipro: 108 pp.
3. Oliinyk, T.I. (2021). Upravlinnia rozvytkom pidpriemstva v umovakh minlyvoho seredovyscha [Management of enterprise development in a changing environment]. Dnipro. 3 pp.
4. Ivantsova, I.V. (2020). Mekhanizm formuvannia orhanizatsiinoi kultury pidpriemstva [The mechanism of formation of the organizational culture of the enterprise.]. Vinnytsia. 622 pp.
5. Bock, L. (2015). Work Rules!: Insights from Inside Google That Will Transform How You Live and Lead. NewYork: Twelve.
6. Freiberg, K., & Freiberg, J. (1998). "Nuts!: South west Airlines' Crazy Recipe for Business and Personal Success." NewYork: Broadway Books.
7. Isaacson, W. (2011). "Steve Jobs." NewYork: Simon & Schuster.
8. Hsieh, T. (2010). "Delivering Happiness: A Path to Profits, Passion, and Purpose." NewYork: Grand Central Publishing.
9. Decker, C. (2003). "P&G 99: Ninety-Nine Principles of Procter & Gamble's Success." New York: McGraw-Hill Education.
10. Presentation materials of Mittweide University of Applied Sciences (Germany) on the discipline "Fundamentals of Corporate Management", 2022.
11. Drucker, P. Management challenges for the 21st century. 1st ed. Harper Business, 1999. URL: <http://surl.li/9lge1>

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